State of Wisconsin
Department of Natural Resources
P.O. Box 7921, Madison, WI 53707-7921

GIS REGISTRY (Cover Sheet)
Form 4400-280 (R 6/13)

Source Property Information

CLOSURE DATE: 03/17/2015

BRRTS #: **02-57-563348**

FID #: 157005530

ACTIVITY NAME: BAAP PARCEL R

DATCP #: NA

PROPERTY ADDRESS: S7560 USH 12

PECFA#: NA

MUNICIPALITY: NORTH FREEDOM

PARCEL ID #: Parcel R PIN: 034-0003-00000 per County Parcel Layer

***WTM COORDINATES:**

X: **539119** Y: **322066**

** 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)

CONTINUING OBLIGATIONS

Contaminated Media for Residual Contamination:

☐ Groundwater Contamination > ES *(236)*

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

*(**note:** for list of off-source properties see "Impacted Off-Source Property Information, Form 4400-246")*

☒ Soil Contamination > *RCL or **SSRCL *(232)*

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

*(**note:** for list of off-source properties see "Impacted Off-Source Property Information, Form 4400-246")*

Site Specific Obligations:

☐ Soil: maintain industrial zoning *(220)*

*(**note:** soil contamination concentrations between non-industrial and industrial levels)*

☐ Structural Impediment *(224)*

☐ Site Specific Condition *(228)*

☐ Cover or Barrier *(222)*

- ☐ Direct Contact
- ☐ Soil to GW Pathway

☐ Vapor Mitigation *(226)*

☐ Maintain Liability Exemption *(230)*

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

Monitoring Wells:

Two monitoring wells RIN-0501A & RIN-0501C remain for monitoring of other areas on BAAP - not specifically Parcel R.

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

○ Yes ◉ No ○ N/A

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

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

March 17, 2015

Mr. Robert Sitton – Commander's Representative
Badger Army Ammunition Plant
S7560 Highway 12
North Freedom, WI 53951

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Final Case Closure with Continuing Obligations
Badger Army Ammunition Plant Parcel R, S7560 Highway 12, North Freedom, WI; Sauk County
DNR BRRTS Activity #: 02-57-563348

Dear Mr Sitton:

The Department of Natural Resources (DNR) considers the Parcel R case closed, with two continuing obligations. No further investigation or remediation is required at this time. However, you and future property owners, and occupants must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that the Army complies with all conditions and other on-going requirements. Provide this letter to anyone who purchases, rents or leases this property from you.

This closure decision includes the following determinations. Closure was granted for the following sites within Parcel R at which a remedial investigation and a remedial action were completed:

Fire Training and Practice Area
Powerhouse #1 Steam Traps
Powerhouse #1Above-Ground Storage Tanks and Impacted Soil
Shop Change House (petroleum fuel dispenser tank and piping)
Laboratories Area and Solvent Storage Building
Combined Shops and Main Warehouse
Sewer Lines
Wood Grinder Processing/Storage Area
(Building) Post-Demolition Sampling (and remediation)

A determination of no-further-action is included in the closure decision for the following sites within Parcel R at which a remedial investigation was completed:

Powerhouse #1 – Former Collection Pit
Tram Shop
Metrology Lab

A determination of no-action-required was issued for the remaining area of Parcel R.

This closure decision does not include the following areas in Parcel R that have been previously closed or similarly addressed by DNR (closure date is in parentheses): soil impacted by PCBs in the Main Transformer Yard at Powerhouse #1(1995); a fuel oil leak approximately 40 feet west of Powerhouse #1 (2007); petroleum-

impacted soil near the Locomotive Shop (2012); soil at the Oil and Solvent Store (2007); lead-impacted soil near the Lead Burning House (2010); and a diesel fuel spill east of Account #0227-3 (2009).

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wisconsin Administrative Code. The South Central Region (SCR) Closure Committee reviewed the request for closure on March 5, 2015. This committee reviewed this environmental remediation case for compliance with state laws and standards.

The conditions of closure and continuing obligations required were based on the assumption that the Parcel R property will be used for residential purposes, although this is in actuality not possible because of use restrictions required by the Army. The Ho Chunk Nation, future owner of this parcel and additional adjacent land, is considering using this parcel for agricultural (pasture) purposes.

Two groundwater monitoring wells are located on Parcel R and were installed primarily to monitor the Laboratories Area and Solvent Storage Building, located within this parcel. These wells will remain for future monitoring of groundwater in this northwest area of BAAP, but not this parcel specifically. These wells remain the responsibility of the Army until they are properly abandoned after DNR approval. These two wells are identified on the attached "Groundwater Monitoring Well Location Map", Figure B.3.d.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the Closure Conditions section below.

- Residual soil contamination may exist that would have to be properly managed should it be excavated or removed.
- One or more monitoring wells were approved to be kept for further monitoring of groundwater quality of the larger area of this and adjacent parcels. Annual inspections are required and the wells must be properly filled and sealed when monitoring has been completed.

The DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf.

GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at http://dnr.wi.gov/topic/Brownfields/rrsm.html, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at http://dnr.wi.gov/topic/wells/documents/3300254.pdf.

All site information is also on file at the SCR DNR office at 3911 Fish Hatchery Road, Fitchburg, WI. This letter and information that was submitted with your closure request application can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Closure Conditions

Compliance with the requirements of this letter is a responsibility to which the Army and any subsequent property owners must adhere. If these requirements are not followed, the DNR may take enforcement action under s.

292.11, Wisconsin Statutes, to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications in accordance with the following requirements to:

Department of Natural Resources
Attn: Remediation and Redevelopment Program Environmental Program Associate
3911 Fish Hatchery Road
Fitchburg, WI 53711

Residual Soil Contamination (ch. NR 718, or ch. 289, Stats.; chs. 500 to 536, Wis. Adm. Code)
All current and future owners and occupants of the property need to be aware that excavation of any 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.

Continued Monitoring Approved
Your request for continued monitoring of the two monitoring wells located in Parcel R and shown on the attached map is approved. These wells, used as part of a monitoring well network to monitor groundwater quality of the northwest area of BAAP, are shown on Figure B.3.d, which is included in the closure request submittal received by the Department on February 11, 2015. In the future, sampling results must be submitted to the DNR within 30 days of your receipt of the results. An annual inspection of these wells is required to verify the integrity of the monitoring well construction, starting one year after the date of this letter. The inspection log shall be maintained on site, and be made available to the DNR upon request.

You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater. Once monitoring of these wells ends, the Army or its agent is required to notify the DNR, to properly fill and seal each well, and to submit the required documentation to the DNR.

In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment;
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats; or
- if a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR 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 Will Myer at 608.273.5613 or at will.myers@wisconsin.gov.

Sincerely,

Linda Hanefeld, Team Supervisor
SCR Remediation & Redevelopment Program

Attachment: Figure B.3.d – Groundwater Monitoring Well Location Map, Parcel R

c (via e-mail): Brian Jacobs – BTS, LLC
Laura Olah - CSWAB

Legend

- Groundwater Monitoring Well Location
- Groundwater Flow Direction
- Existing Building
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure B.3.d.

Groundwater Monitoring Well Location Map
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 125 feet

0 325 650 Feet

BTS

mainrgis_GIS\GIS_Projects\WDNR Closure Request\Figure B3d GW Wells.mxd

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Case Closure - GIS Registry

SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided. Any section of the form not relevant to the case closure request must be fully filled out or explained on a separate page and attached to the relevant section of this form. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Site Information

BRRTS No.	Parcel ID No. R		
BRRTS Activity (Site) Name BAAP Parcel R	WTM Coordinates X 539,119	Y 322,066	
Street Address S7560 U.S. Highway 12	City North Freedom	State WI	ZIP Code 53951
Responsible Party (RP) Name United States Army			
Company Name			
Street Address S7560 U.S. Highway 12	City North Freedom	State WI	ZIP Code 53951
Phone Number (608) 643-3361	Email robert.m.sitton.civ@mail.mil		

☒ Check here if the RP is the owner of the source property.

Environmental Consultant Name Brian Jacobs			
Consulting Firm Badger Technical Services, LLC BAAP			
Street Address S7560 U.S. Highway 12	City North Freedom	State WI	ZIP Code 53951
Phone Number (608) 643-3361	Email brian.jacobs@specpro-inc.com		
Acres Ready For Use 93.78	Voluntary Party Liability Exemption Site? ○ Yes ◉ No		

Fees and Mailing of Closure Request

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. **Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR regional Environmental Program Associate at **http://dnr.wi.gov/topic/Brownfields/Contact.html**. Check all fees that apply:

   ☐ $1,050 Closure Fee

   ☐ $300 Database Fee for Soil

   ☐ $350 Database Fee for Groundwater or Other Condition (MW Not Abandoned)

   Total Amount of Payment $ Closure and GIS Registry fees paid by Army as part of grant to WDNR

2. **Send one paper copy and one e-copy on compact disk of the entire closure package** to the Regional Project Manager assigned to your site. Submit as *unbound, separate documents* in the order and with the titles prescribed by this form. For electronic document submittal requirements, see **http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.**

Site Summary

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. General Site Information and Site History

A. **Site Location**: Describe the physical location of the site, both generally and specific to its immediate surroundings.
Located in the west-central portion of the Badger Army Ammunition Plant (BAAP), Parcel R is an open prairie grassland surrounded by open prairie grassland.

B. **Prior and current site usage**: Specifically describe the current and historic occupancy and types of use.
Parcel R once contained numerous buildings (accounts) used for the production support of propellants and included accounts that housed a fire station, power plant, laboratories, maintenance and repair facilities and change houses. Currently, Parcel R contains seven accounts and two monitoring wells.

C. Describe how and when site contamination was discovered.
In May 1991, a fuel oil leak was detected approximately 40 feet west of Powerhouse #1. Further investigations revealed evidence of previous releases within the same area.

D. Describe the type(s) and source(s) or suspected source(s) of contamination.
The accounts in Parcel R served a variety of functions and contained infrastructure, materials and supplies to support their functions. Powerhouse #1 contained a transformer yard and several above and below ground storage tanks containing fuel oil. The Locomotive and Tram Shops contained petroleum products for maintenance and repair operations. Underground storage tanks containing diesel fuel were also present south of the Shop Change Houses and by the Fire Training Area. Solvents and mercury were utilized in the Laboratories Area. Lead was processed at the Lead Burning House. There was a potential for sewer lines to contain residues from explosive and propellant manufacturing. Buildings were painted with lead- and polychlorinated biphenyls (PCB)-laden paint.

E. Other relevant site description information (or enter Not Applicable).
Information pertaining to Parcel R is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 1 - 14. Reports referenced in this document are contained on the enclosed CD.

F. List BRRTS activity site name and number for all other BRRTS activities at this property, including closed cases.
BAAP Powerhouse #1 Fuel Discharge - BRRTS No. 0357000714, BAAP Parcel R Locomotive Shop - BRRTS No. 0257558278, BAAP Oil and Solvent Store - BRRTS No. 0957550174, BAAP Lead Burning House - BRRTS No. 0257555505

G. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to this site, and those impacted by contamination from this site.
BAAP Parcel R3 - BRRTS No. 0257562795, BAAP Parcels Y2 - BRRTS No. 0257559830, BAAP Parcel Y - BRRTS No. 0257559831, BAAP Parcel U3 - BRRTS No. 0257559615, BAAP Parcel Q3 - BRRTS No. 025755802

H. **Current zoning** (e.g. industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
Parcel R and the surrounding parcels are zoned "governmental-agricultural conservation."

2. General Site Conditions

A. Soil/Geology

i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
Soils consist of brown, unconsolidated material, primarily poorly to well graded sand and well graded gravel.

ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
Subsequent to respective remedial actions, the areas were backfilled with material from one of the on-site soil borrow areas. This was typically glacial till soil. Generally, remedial action areas (post demolition and others) has a depth of fill up to 5 feet. Underground storage tank void spaces were filled to a depth of approximately 8 feet and sewer line fill depth ranged from four to 35 feet below ground surface (bgs). This information is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13. Reports referenced in this document are contained on the enclosed CD.

iii. Depth to bedrock, bedrock type, and whether or not it was encountered during the investigation.
Bedrock was not encountered during the investigation; however, it is expected to be approximately 200 to 250 feet bgs and consist of sandstone, siltstone and shale from the Eau Claire Formation.

iv. Describe the nature and locations of current surface cover(s) across the site (e.g. natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).
Parcel R consists mostly of natural vegetation including open prairie grassland. Approximately 30 percent of the surface area is relatively impervious. There are 7 structures that will remain and a network of roads and several parking

areas that are asphalt, broken asphalt and/or gravel.

B. Groundwater

i. **Discuss depth to groundwater and piezometric elevations**. Describe and explain depth variations, and whether free product affects measurement or water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.

Groundwater is approximately 91 feet bgs in Parcel R. In August of 1991, free product approximately 3 feet thick, was encountered in the vicinity of Powerhouse #1; however, an active free product removal system was installed, operated to practicable free product removal extent, and later abandoned. This information is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Page 3. Reports referenced in this document are contained on the enclosed CD.

ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.

Groundwater flow in in the Parcel R area is generally to the south/southeast toward the Wisconsin River and Lake Wisconsin.

iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.

The average flow velocity and hydraulic conductivity across the BAAP is approximately 0.72 feet per day and 4x10E-2 centimeters per second, respectively.

iv. Identify and describe locations/distance of potable and/or municipal Wells within 1200 feet of the site.

A potable/municipal well is located approximately 450 feet southwest (side gradient) of the Parcel R boundary and is used by the Department of the Army as their potable well and as a backup well for the community of Bluffview located west of U.S. Highway 12.

3. Site Investigation Summary

A. General

i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

The site investigation history of Parcel R began in 1991 and has been the subject of many subsequent investigations. A summary of these investigations and relevant references are included in Attachment 3.A.i.

ii. Identify whether contamination extends beyond the source property boundary, describe the off-site media (e.g., soil, groundwater, etc.) impacted, and the vertical and horizontal extent of off-site impacts.

Soil contaminants do not extend beyond the boundary of Parcel R.

iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

Structural impediments were not encountered during the investigation activities. Structural impediments were removed during the final stages of demolition and remedial action activities.

B. Soil

i. Describe degree and extent of **soil contamination** at and from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways.

Remedial action areas (post demolition and others) were excavated to a depth of up to 5 feet bgs. Underground storage tank areas were excavated to a depth of approximately 8 feet bgs and sewer line excavations ranged from four to 35 feet bgs. This information is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13. Reports referenced in this document are contained on the enclosed CD.

ii. Describe the level and types of **soil contaminants** found in the upper four feet of the soil column.

Known soil contaminants found within the upper four feet have been removed.

iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.

Default ch. NR 720, Wis Adm. Code (Residential), Register September 2007 No. 621; United States Environmental Protection Agency Regional Screening Levels (Residential); and BAAP Background Levels.

C. Groundwater

i. Describe degree and extent of groundwater contamination at or from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

Groundwater monitoring data indicated the presence of carbon tetrachloride, and trichloroethene; however, the levels are below the Enforcement Standards. Groundwater concentrations exceeding Chapter NR 140, Wisconsin Administrative Code standards were not been identified in the most recent sampling event.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations.

In August of 1991, free product approximately 3 feet thick, was encountered in the vicinity of Powerhouse #1; however, an active free product removal system was installed, operated to practicable free product removal, and later abandoned.

D. Vapor

i. Describe how the vapor migration pathway was assessed, including locations where vapor or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.

Soil gas surveys were completed at Powerhouse #1, Oil and Solvent Store, Fire Training and Practice area, Oil Drum Store, and the Laboratories and Solvent Storage Building area. This information is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13. Reports referenced in this document are contained on the enclosed CD.

ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).

Powerhouse 1 and the Fire Training and Practice and the Laboratories and Solvent Storage Building areas were the subject of remedial actions. This information is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13. Reports referenced in this document are contained on the enclosed CD.

E. Surface Water and Sediment

i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.

There is not surface water and/or sediment in Parcel R.

ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.

Not applicable.

4. Remedial Actions Implemented and Residual Levels at Closure

A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

The remedial action history of Parcel R began in 1985 and has been the subject of many subsequent actions. A brief summary of these actions and relevant references are included in Attachment 4.A.

B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.

Parcel R has been the site of minor spills related mostly to equipment failure and discharge of petroleum products. The spill volumes were typically less than 5 gallons. Impacted soils from these spills were excavated and transported to the BAAP licensed landfills for disposal.

C. Describe the *active* remedial actions taken at the site, including: type of remedial system(s) used for each media impacted; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

There is no active remediation at the site.

D. Provide a discussion of the nature, degree and extent of residual contamination that will remain at the site or on off-site affected properties after case closure.

Residual PCB concentrations slightly above the cleanup objective will remain at four locations at Powerhouse #1; however, this site received regulatory closure in a letter from the WDNR dated January 22, 1997. Residual lead concentrations above the cleanup objective will remain at depths below direct contact interval at one location at the Lead Burning House. This site also received regulatory closure in a letter from the WDNR dated Junly 15, 2010.

E. Describe the remaining soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds Residual Contaminant Levels established under s. NR 720. 12 , the ch. NR720, Wis. Adm. Code, for protection of human health from direct contact.

Residual PCB concentrations slightly above the cleanup objective will remain at four locations at Powerhouse #1; however, this site received regulatory closure in a letter from the WDNR dated January 22, 1997.

F. Describe the remaining soil contamination in the vadose zone that attains or exceeds the soil standard(s) for the groundwater pathway.
Groundwater protection limits were exceeded for naphthalene and total xylenes for soil at 8 feet bgs at the Tram Shop.

G. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.
All remedial action sites have either received regulatory closure or have met cleanup objectives protective of direct contact.

H. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration, (e.g. stable or receding groundwater plume).
Not applicable

I. Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s) described above in paragraphs, B, C, D, E and F.
Source removal (soil excavation) of impacted soil prevents direct contact.

J. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.
Not applicable.

K. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.
Not applicable.

L. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.
Not applicable.

M. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.
Not applicable.

5. Continuing Obligations: Situations where a maintenance plan(s) and inclusion on DNR's GIS Registry are required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: Maintenance Plans and GIS Registry	Maintenance Plan (s) Required in Attachment D	GIS Registry Listing
	A. On-Site	B. Off-Site			
i.	☐	☐	Engineering Control/Barrier for Direct Contact	✓	✓
ii.	☐	☐	Engineering Control/Barrier for Groundwater Infiltration	✓	✓
iii.	☐	☐	Vapor Mitigation - post closure passive system	✓	✓
iv.	☐	☐	Vapor Mitigation - post closure active system	✓	✓
v.	☒	☒	None of the above scenarios apply to this case closure	NA	NA

6. Continuing Obligations: Situations where inclusion on DNR's GIS Registry is required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: GIS Registry Only	GIS Registry Listing
	A. On-Site	B. Off-Site		
i.	☒	☐	Residual soil contamination exceeds ch. NR 720 generic or site-specific RCLs	✓
ii.	☐	☐	Sites with groundwater contamination equal to or greater than the ch. NR 140, enforcement standards (ES)	✓
iii.	☒	☐	Monitoring wells: lost, transferred or remaining in use	✓
iv.	☐	☐	Structural Impediment (not as a performance standard)	✓
v.	☐	☐	Residual soil contamination remaining at ch. NR 720 Industrial Use levels	✓
vi.	☐	☐	Vapor intrusion may be future, post-closure issue if building use or land use changes	✓
vii.	☐	☒	None of the above scenarios apply to this case closure	NA

7. Underground Storage Tanks

A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? ◉ Yes ○ No

B. Do any upgraded tanks meeting the requirements of ch. SPS 310, Wis. Adm. Code, exist on the property? ○ Yes ◉ No

C. If the answer to question 7b is yes, is the leak detection system currently being monitored? ○ Yes ○ No

Data Tables (Attachment A)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General directions for Data Tables:

- Use bold and italics font on information of importance on tables and figures. Use **bold font** for ch. NR 140, Wis. Adm. Code, groundwater enforcement standard (ES) attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, groundwater preventive action limit (PAL) standard attainments or exceedances.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e. do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Pre-remedial Soil Analytical Table, etc).
- For required documents, each table (e.g., A.1., A.2., etc.,) should be a separate PDF.

A. Data Tables

A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates, for all groundwater sampling points e.g. monitoring wells, temporary wells, sumps, extraction wells, any potable wells and any other wells, extraction wells and any potable wells for which samples have been collected.

A.2. **Pre-remedial Soil Analytical Table(s):** Table(s) showing the soil analytical results and collection dates - prior to conducting the interim and/or remedial action. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.3. **Post-remedial Soil Analytical Table(s):** Table(s) showing the post-remedial action soil analytical results and collection dates. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.4. **Pre and Post Remaining Soil Contamination Soil Analytical Table(s):** Table(s) showing only the pre and post remedial action soil analytical results that exceed a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL).

A.5. **Vapor Analytical Table**: Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method

and results of communication testing.

A.6. **Other Media of Concern (e.g., sediment or surface water)**: Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, time period for sample collection, method and results sampling.

A.7. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.

A.8. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

Maps and Figures (Attachment B)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions for all Maps and Figures:

- If any map or figure is not relevant to the case closure request, you must fully explain the reason(s) why and attach that explanation (properly labeled with the map/ figure title) in Attachment B.
- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11x17 inches, in a portable document format (pdf) readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis Adm. Code.
- Do not use shading or highlights on any of the analytical tables.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.

B.1. Location Maps

B.1.a. **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 impacted and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.

B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for on-site and applicable off-site properties, 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) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.

B.1.c. **RR Site Map:** From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

B.2. Soil Figures

B.2.a. **Pre-remedial Soil Contamination:** Figure(s) showing the sample location of all pre-remedial, unsaturated contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeded a Residual Contaminant Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.

B.2.b. **Post-remedial Soil Contamination :** Figure(s) showing the sample location of all post-remedial, unsaturated 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) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.2.c. **Pre/Post Remaining Soil Contamination:** Figure(s) showing the only location of all pre and post remedial residual soil sample location(s) where unsaturated contaminated soil remains after remediation and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminate Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.3. Groundwater Figures

B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered.

Display on one or more figures all of the following:

- Source location(s) and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
- Source location(s) and lateral and vertical extent if groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES)
- Surface features, including buildings and basements, and show surface elevation changes.
- Any areas of active remediation within the cross section path, such as excavations or treatment zones.
- Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1b)

B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, Preventive Action Limit (PAL) and/or an Enforcement Standard (ES). Indicate the date and direction of groundwater flow based on the most recent sampling data.

B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.

B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been previously abandoned.

B.4. Vapor Maps and Other Media

B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway, in relation to remaining soil and groundwater contamination, including sub-slab, indoor air, soil vapor, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.

B.4.b. **Other media of concern (e.g., sediment or surface water)**: Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.

B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank)

Documentation of Remedial Action (Attachment C)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc).
- If the documentation requested below is "not applicable" to the site-specific circumstances, include a brief explanation to support that conclusion.
- If the documentation requested below has already been submitted to the Department, please note the title and date of the report for that particular document requested.

C.1. **Site investigation documentation,** that has not otherwise been previously submitted.

C.2. **Investigative waste** disposal documentation.

C.3. **Provide a description of the methodology used along with all supporting documentation if the Residual Contaminant Levels are different than those contained in the Department's RCL Spreadsheet available at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.**

C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.

C.5. **Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment upon receiving conditional closure.

C.6. **Photos.** For sites or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system. Include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features should be visible and discernible. Photographs must be labeled with the site name, the features shown, location and the date on which the photograph was taken.

C.7. **Other**. Include any other relevant documentation not otherwise noted above. (This section may remain blank)

Maintenance Plan(s) and Photographs (Attachment D)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

When one or more "maintenance plans" are required for a site closure, include in each maintenance plan all required information listed below, and attach the plan(s) in Attachment D. The following "model" maintenance plans can be located at: (1) Maintenance plan for a engineering control or cover: http://dnr.wi.gov/topic/Brownfields/documents/maintenance-plan.pdf; and (2) Maintenance plan for vapor intrusion: http://dnr.wi.gov/topic/Brownfields/documents/appendix5_606.pdf.

D.1. **Location map(s)** which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) and all property boundaries.

D.2. **Brief descriptions** of the type, depth and location of residual contamination.

D.3. **Description of maintenance action(s)** required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.

D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter.

D.5. **Contact information,** including the name, address and phone number of the individual or facility who will be conducting the maintenance.

D.6 Photographs

D.6.a. For site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible.

D.6.b. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.

Monitoring Well Information (Attachment E)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

Attach monitoring well construction and development forms (DNR FORM 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf) for all wells that will remain in-use, be transferred to another party or that could not be located. A figure of these wells should be included in Attachment B.3.d.

Select One:

○ No monitoring wells were required as part of this response action.

○ All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site

◉ ***Select One or More:***

☐ Not all monitoring wells can be located, despite good faith efforts. Attachment E must include description of efforts made to locate the "lost" wells.

☐ One or more wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s).

☒ One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use.

Notifications to Owners of Impacted Properties (Attachment F)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- State law requires that the responsible party provide a 30-day, written advance notice (i.e., a letter) to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned.
- Use of Form 4400-286, Notification of Residual Contamination and Continuing Obligations, is required under ch. NR 725 for notifying property owners and right-of-way holders about residual contamination affecting their properties, and of continuing obligations which may be imposed. This form can be downloaded at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf.

Check all that apply to the site-specific circumstances of this case closure:

	A. Impacted Source Property and Owner is not Conducting Cleanup	B. Impacted Right of Way	C. Impacted Off-Site Property Owner	Impacted Property Notification Situations: Ch. NR 726 Appendix A Letter
1.	☐	☐	☐	Residual groundwater contamination exceeds Ch. NR 140 Wis. Administrative Code enforcement standards.
2.	☐	☐	☐	Residual soil contamination that attains or exceeds standards is present after the remedial action is complete, and must be properly managed should it be excavated or removed.
3.	☐	☐	☐	An engineered cover or a soil barrier (e.g. pavement) must be maintained over contaminated soil for direct contact or groundwater infiltration concerns.
4.	☐	☐	☐	Industrial land use soil standards were used for the clean-up standard.
5.	☐	☐	☐	A vapor mitigation system (or other specific vapor protection) must be operated and maintained.
6.	☐	☐	☐	Vapor assessment needed if use changes.
7.	☐	☐	☐	Structural impediment.
8.	☐	☐	☐	Lost, transferred or open monitoring wells.
9.	☒	☒	☒	Not Applicable.

If any of the previous boxes in rows 1 thru 8 were checked, include the following as part of Attachment F:

- FORM 4400-246;
- Copy of each letter sent, 30 days or more prior to requesting closure; and
- Proof of receipt for each letter.
- For this site closure, _____ (number) property (ies) has/have been impacted, the owners have been notified, and copies of the letters and receipts are included in Attachment F.

Source Legal Documents (Attachment G)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Include all of the following documents, in this order, in Attachment G:

G.1. **Deeds - Source Property and Other Impacted Properties:** The most recent deed with legal descriptions clearly labeled for (1) the **Source Property** (where the contamination originated) and (2) all **off-source** (off-site) properties where letters were required to be sent per the ch. NR 700, Wis. Adm. Code, rule series (e.g., off-site cover maintenance required, lost monitoring well, off-site cover property impacts to groundwater exceeding the ch. NR 140, Wis. Adm. Code.

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.*

G.2. ***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)).

G.3. **Verification of Zoning**: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.

G.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

Signatures and Findings for Closure Determination

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Check the correct box for this case closure request, and have either a professional engineer or a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code, sign this document.

☒ A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies).

☒ The response action(s) for this site addresses media other than groundwater.

Engineering Certification

I Brian S. Jacobs hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared by me or prepared under my supervision in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Brian S. Jacobs	Senior Project Engineer
Printed Name	Title
Signature	02/05/15 Date
	P.E. Stamp and Number

WISCONSIN BRIAN JACOBS E-35309-006 MADISON PROFESSIONAL ENGINEER

Hydrogeologist Certification

I _____ hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared by me or prepared by me or prepared under my supervision and, in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Printed Name	Title
Signature	Date

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
RIN-0501A				**RIN-0501C**			
31-Oct-05	1,1,1,2-Tetrachloroethane	<	0.21	31-Oct-05	1,1,1,2-Tetrachloroethane	<	0.21
31-Oct-05	1,1,1-Trichloroethane	<	0.11	31-Oct-05	1,1,1-Trichloroethane	<	0.11
31-Oct-05	1,1,2,2-Tetrachloroethane	<	0.28	31-Oct-05	1,1,2,2-Tetrachloroethane	<	0.28
31-Oct-05	1,1,2-Trichloroethane	<	0.28	31-Oct-05	1,1,2-Trichloroethane	<	0.28
31-Oct-05	1,1-Dichloroethane	<	0.11	31-Oct-05	1,1-Dichloroethane	<	0.11
31-Oct-05	1,1-Dichloroethylene	<	0.12	31-Oct-05	1,1-Dichloroethylene	<	0.12
31-Oct-05	1,1-Dichloropropene	<	0.08	31-Oct-05	1,1-Dichloropropene	<	0.08
31-Oct-05	1,2,3-Trichlorobenzene	<	0.23	31-Oct-05	1,2,3-Trichlorobenzene	<	0.23
31-Oct-05	1,2,3-Trichloropropane	<	0.41	31-Oct-05	1,2,3-Trichloropropane	<	0.41
31-Oct-05	1,2,4-Trichlorobenzene	<	0.24	31-Oct-05	1,2,4-Trichlorobenzene	<	0.24
31-Oct-05	1,2,4-Trimethylbenzene	<	0.18	31-Oct-05	1,2,4-Trimethylbenzene	<	0.18
31-Oct-05	1,2-Dichlorobenzene	<	0.26	31-Oct-05	1,2-Dichlorobenzene	<	0.26
31-Oct-05	1,2-dichloroethane	<	0.14	31-Oct-05	1,2-dichloroethane	<	0.14
31-Oct-05	1,2-Dichloroethene	<	0.09	31-Oct-05	1,2-Dichloroethene	<	0.09
31-Oct-05	1,2-Dichloropropane	<	0.21	31-Oct-05	1,2-Dichloropropane	<	0.21
31-Oct-05	1,3,5-Trimethylbenzene	<	0.18	31-Oct-05	1,3,5-Trimethylbenzene	<	0.18
31-Oct-05	1,3-Dichlorobenzene	<	0.21	31-Oct-05	1,3-Dichlorobenzene	<	0.21
31-Oct-05	1,3-Dichloropropane	<	0.28	31-Oct-05	1,3-Dichloropropane	<	0.28
31-Oct-05	2,2-Dichloropropane	<	0.08	31-Oct-05	2,2-Dichloropropane	<	0.08
31-Oct-05	2,4-Dinitrotoluene	<	0.019	31-Oct-05	2,4-Dinitrotoluene	<	0.019
31-Oct-05	2,6-Dinitrotoluene	<	0.013	31-Oct-05	2,6-Dinitrotoluene	<	0.013
31-Oct-05	Benzene	<	0.07	31-Oct-05	Benzene	<	0.07
31-Oct-05	Bromobenzene	<	0.19	31-Oct-05	Bromobenzene	<	0.19
31-Oct-05	Bromochloromethane	<	0.17	31-Oct-05	Bromochloromethane	<	0.17
31-Oct-05	Bromodichloromethane	<	0.2	31-Oct-05	Bromodichloromethane	<	0.2
31-Oct-05	Bromomethane	<	0.11	31-Oct-05	Bromomethane	<	0.11
31-Oct-05	Carbon Tetrachloride		0.23	31-Oct-05	Carbon Tetrachloride	<	0.12
31-Oct-05	Chloroethane	<	0.14	31-Oct-05	Chloroethane	<	0.14
31-Oct-05	Chloroform	<	0.13	31-Oct-05	Chloroform	<	0.13
31-Oct-05	Chloromethane	<	0.09	31-Oct-05	Chloromethane	<	0.09
31-Oct-05	Cis-1,2-dichloroethylene	<	0.15	31-Oct-05	Cis-1,2-dichloroethylene	<	0.15
31-Oct-05	Cis-1,3-Dichloropropene	<	0.13	31-Oct-05	Cis-1,3-Dichloropropene	<	0.13
31-Oct-05	Dibromochloromethane	<	0.18	31-Oct-05	Dibromochloromethane	<	0.18
31-Oct-05	Dibromomethane	<	0.21	31-Oct-05	Dibromomethane	<	0.21
31-Oct-05	Dichlorodifluoromethane	<	0.07	31-Oct-05	Dichlorodifluoromethane	<	0.07
31-Oct-05	Ethyl Ether	<	0.13	31-Oct-05	Ethyl Ether	<	0.13
31-Oct-05	Ethylbenzene	<	0.2	31-Oct-05	Ethylbenzene	<	0.2
31-Oct-05	Fluorotrichloromethane	<	0.12	31-Oct-05	Fluorotrichloromethane	<	0.12
31-Oct-05	Hexachlorobutadiene	<	0.11	31-Oct-05	Hexachlorobutadiene	<	0.11
31-Oct-05	Isopropylbenzene	<	0.15	31-Oct-05	Isopropylbenzene	<	0.15
31-Oct-05	Isopropyltoluene	<	0.17	31-Oct-05	Isopropyltoluene	<	0.17
31-Oct-05	M,P-Xylene	<	0.38	31-Oct-05	M,P-Xylene	<	0.38
31-Oct-05	Methylene Chloride	<	0.1	31-Oct-05	Methylene Chloride	<	0.1
31-Oct-05	Monochlorobenzene	<	0.23	31-Oct-05	Monochlorobenzene	<	0.23
31-Oct-05	N-Butylbenzene	<	0.14	31-Oct-05	N-Butylbenzene	<	0.14
31-Oct-05	N-propylbenzene	<	0.15	31-Oct-05	N-propylbenzene	<	0.15
31-Oct-05	O-Chlorotoluene	<	0.19	31-Oct-05	O-Chlorotoluene	<	0.19
31-Oct-05	O-Xylene	<	0.21	31-Oct-05	O-Xylene	<	0.21
31-Oct-05	P-Chlorotoluene	<	0.21	31-Oct-05	P-Chlorotoluene	<	0.21
31-Oct-05	P-Dichlorobenzene	<	0.27	31-Oct-05	P-Dichlorobenzene	<	0.27
31-Oct-05	Styrene	<	0.28	31-Oct-05	Styrene	<	0.28
31-Oct-05	Tetrachloroethylene	<	0.17	31-Oct-05	Tetrachloroethylene	<	0.17
31-Oct-05	Toluene	<	0.15	31-Oct-05	Toluene	<	0.15
31-Oct-05	Trans-1,3-Dichloropropene	<	0.18	31-Oct-05	Trans-1,3-Dichloropropene	<	0.18
31-Oct-05	Tribromomethane	<	0.43	31-Oct-05	Tribromomethane	<	0.43
31-Oct-05	Trichloroethylene		0.83	31-Oct-05	Trichloroethylene	<	0.1

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
31-Oct-05	Vinyl Chloride	<	0.11	31-Oct-05	Vinyl Chloride	<	0.11
11-Jan-06	1,1,1,2-Tetrachloroethane	<	0.21	11-Jan-06	1,1,1,2-Tetrachloroethane	<	0.21
11-Jan-06	1,1,1,2-Tetrachloroethane	<	0.21	11-Jan-06	1,1,1-Trichloroethane	<	0.11
11-Jan-06	1,1,1-Trichloroethane	<	0.11	11-Jan-06	1,1,2,2-Tetrachloroethane	<	0.28
11-Jan-06	1,1,1-Trichloroethane	<	0.11	11-Jan-06	1,1,2-Trichloroethane	<	0.28
11-Jan-06	1,1,2,2-Tetrachloroethane	<	0.28	11-Jan-06	1,1-Dichloroethane	<	0.11
11-Jan-06	1,1,2,2-Tetrachloroethane	<	0.28	11-Jan-06	1,1-Dichloroethylene	<	0.12
11-Jan-06	1,1,2-Trichloroethane	<	0.28	11-Jan-06	1,1-Dichloropropene	<	0.08
11-Jan-06	1,1,2-Trichloroethane	<	0.28	11-Jan-06	1,2,3-Trichlorobenzene	<	0.23
11-Jan-06	1,1-Dichloroethane	<	0.11	11-Jan-06	1,2,3-Trichloropropane	<	0.41
11-Jan-06	1,1-Dichloroethane	<	0.11	11-Jan-06	1,2,4-Trichlorobenzene	<	0.24
11-Jan-06	1,1-Dichloroethylene	<	0.12	11-Jan-06	1,2,4-Trimethylbenzene	<	0.18
11-Jan-06	1,1-Dichloroethylene	<	0.12	11-Jan-06	1,2-Dichlorobenzene	<	0.26
11-Jan-06	1,1-Dichloropropene	<	0.08	11-Jan-06	1,2-dichloroethane	<	0.14
11-Jan-06	1,1-Dichloropropene	<	0.08	11-Jan-06	1,2-Dichloroethene	<	0.09
11-Jan-06	1,2,3-Trichlorobenzene	<	0.23	11-Jan-06	1,2-Dichloropropane	<	0.21
11-Jan-06	1,2,3-Trichlorobenzene	<	0.23	11-Jan-06	1,3,5-Trimethylbenzene	<	0.18
11-Jan-06	1,2,3-Trichloropropane	<	0.41	11-Jan-06	1,3-Dichlorobenzene	<	0.21
11-Jan-06	1,2,3-Trichloropropane	<	0.41	11-Jan-06	1,3-Dichloropropane	<	0.28
11-Jan-06	1,2,4-Trichlorobenzene	<	0.24	11-Jan-06	2,2-Dichloropropane	<	0.08
11-Jan-06	1,2,4-Trichlorobenzene	<	0.24	11-Jan-06	2,3-Dinitrotoluene	<	0.005
11-Jan-06	1,2,4-Trimethylbenzene	<	0.18	11-Jan-06	2,4-Dinitrotoluene	<	0.005
11-Jan-06	1,2,4-Trimethylbenzene	<	0.18	11-Jan-06	2,6-Dinitrotoluene	<	0.008
11-Jan-06	1,2-Dichlorobenzene	<	0.26	11-Jan-06	3,4-Dinitrotoluene	<	0.009
11-Jan-06	1,2-Dichlorobenzene	<	0.26	11-Jan-06	Benzene	<	0.07
11-Jan-06	1,2-dichloroethane	<	0.14	11-Jan-06	Bromobenzene	<	0.19
11-Jan-06	1,2-dichloroethane	<	0.14	11-Jan-06	Bromochloromethane	<	0.17
11-Jan-06	1,2-Dichloroethene	<	0.09	11-Jan-06	Bromodichloromethane	<	0.2
11-Jan-06	1,2-Dichloroethene	<	0.09	11-Jan-06	Bromomethane	<	0.11
11-Jan-06	1,2-Dichloropropane	<	0.21	11-Jan-06	Carbon Tetrachloride	<	0.12
11-Jan-06	1,2-Dichloropropane	<	0.21	11-Jan-06	Chloroethane	<	0.14
11-Jan-06	1,3,5-Trimethylbenzene	<	0.18	11-Jan-06	Chloroform	<	0.13
11-Jan-06	1,3,5-Trimethylbenzene	<	0.18	11-Jan-06	Chloromethane	<	0.09
11-Jan-06	1,3-Dichlorobenzene	<	0.21	11-Jan-06	Cis-1,2-dichloroethylene	<	0.15
11-Jan-06	1,3-Dichlorobenzene	<	0.21	11-Jan-06	Cis-1,3-Dichloropropene	<	0.13
11-Jan-06	1,3-Dichloropropane	<	0.28	11-Jan-06	Dibromochloromethane	<	0.18
11-Jan-06	1,3-Dichloropropane	<	0.28	11-Jan-06	Dibromomethane	<	0.21
11-Jan-06	2,2-Dichloropropane	<	0.08	11-Jan-06	Dichlorodifluoromethane	<	0.07
11-Jan-06	2,2-Dichloropropane	<	0.08	11-Jan-06	Ethyl Ether	<	0.13
11-Jan-06	2,3-Dinitrotoluene	<	0.005	11-Jan-06	Ethylbenzene	<	0.2
11-Jan-06	2,3-Dinitrotoluene		0.008	11-Jan-06	Fluorotrichloromethane	<	0.12
11-Jan-06	2,4-Dinitrotoluene		0.016	11-Jan-06	Hexachlorobutadiene	<	0.11
11-Jan-06	2,4-Dinitrotoluene		0.027	11-Jan-06	Isopropylbenzene	<	0.15
11-Jan-06	2,6-Dinitrotoluene	<	0.008	11-Jan-06	Isopropyltoluene	<	0.17
11-Jan-06	2,6-Dinitrotoluene		0.014	11-Jan-06	M,P-Xylene	<	0.38
11-Jan-06	3,4-Dinitrotoluene		0.026	11-Jan-06	Methylene Chloride	<	0.1
11-Jan-06	3,4-Dinitrotoluene	<	0.009	11-Jan-06	Monochlorobenzene	<	0.23
11-Jan-06	Benzene	<	0.07	11-Jan-06	N-Butylbenzene	<	0.14
11-Jan-06	Benzene	<	0.07	11-Jan-06	N-propylbenzene	<	0.15
11-Jan-06	Bromobenzene	<	0.19	11-Jan-06	O-Chlorotoluene	<	0.19
11-Jan-06	Bromobenzene	<	0.19	11-Jan-06	O-Xylene	<	0.21
11-Jan-06	Bromochloromethane	<	0.17	11-Jan-06	P-Chlorotoluene	<	0.21
11-Jan-06	Bromochloromethane	<	0.17	11-Jan-06	P-Dichlorobenzene	<	0.27
11-Jan-06	Bromodichloromethane	<	0.2	11-Jan-06	Styrene	<	0.28
11-Jan-06	Bromodichloromethane	<	0.2	11-Jan-06	Tetrachloroethylene	<	0.17
11-Jan-06	Bromomethane	<	0.11	11-Jan-06	Toluene	<	0.15
11-Jan-06	Bromomethane	<	0.11	11-Jan-06	Trans-1,3-Dichloropropene	<	0.18
11-Jan-06	Carbon Tetrachloride		0.26	11-Jan-06	Tribromomethane	<	0.43

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
11-Jan-06	Carbon Tetrachloride		0.24	11-Jan-06	Trichloroethylene	<	0.1
11-Jan-06	Chloroethane	<	0.14	11-Jan-06	Vinyl Chloride	<	0.11
11-Jan-06	Chloroethane	<	0.14	05-Apr-06	2,3-Dinitrotoluene	<	0.005
11-Jan-06	Chloroform	<	0.13	05-Apr-06	2,4-Dinitrotoluene	<	0.005
11-Jan-06	Chloroform	<	0.13	05-Apr-06	2,5-Dinitrotoluene	<	0.005
11-Jan-06	Chloromethane	<	0.09	05-Apr-06	2,6-Dinitrotoluene	<	0.008
11-Jan-06	Chloromethane	<	0.09	05-Apr-06	3,4-Dinitrotoluene	<	0.009
11-Jan-06	Cis-1,2-dichloroethylene	<	0.15	05-Apr-06	3,5-Dinitrotoluene	<	0.004
11-Jan-06	Cis-1,2-dichloroethylene	<	0.15	30-Jun-08	2,3-Dinitrotoluene	<	0.01
11-Jan-06	Cis-1,3-Dichloropropene	<	0.13	30-Jun-08	2,4-Dinitrotoluene	<	0.01
11-Jan-06	Cis-1,3-Dichloropropene	<	0.13	30-Jun-08	2,5-Dinitrotoluene	<	0.01
11-Jan-06	Dibromochloromethane	<	0.18	30-Jun-08	2,6-Dinitrotoluene	<	0.01
11-Jan-06	Dibromochloromethane	<	0.18	30-Jun-08	3,4-Dinitrotoluene	<	0.016
11-Jan-06	Dibromomethane	<	0.21	30-Jun-08	3,5-Dinitrotoluene	<	0.01
11-Jan-06	Dibromomethane	<	0.21	13-Sep-11	1,1,1,2-Tetrachloroethane	<	0.1
11-Jan-06	Dichlorodifluoromethane	<	0.07	13-Sep-11	1,1,1-Trichloroethane	<	0.1
11-Jan-06	Dichlorodifluoromethane	<	0.07	13-Sep-11	1,1,2,2-Tetrachloroethane	<	0.1
11-Jan-06	Ethyl Ether	<	0.13	13-Sep-11	1,1,2-Trichloroethane	<	0.1
11-Jan-06	Ethyl Ether	<	0.13	13-Sep-11	1,1-Dichloroethane	<	0.1
11-Jan-06	Ethylbenzene	<	0.2	13-Sep-11	1,1-Dichloroethylene	<	0.1
11-Jan-06	Ethylbenzene	<	0.2	13-Sep-11	1,1-Dichloropropene	<	0.1
11-Jan-06	Fluorotrichloromethane	<	0.12	13-Sep-11	1,2,3-Trichlorobenzene	<	0.1
11-Jan-06	Fluorotrichloromethane	<	0.12	13-Sep-11	1,2,3-Trichloropropane	<	0.1
11-Jan-06	Hexachlorobutadiene	<	0.11	13-Sep-11	1,2,4-Trichlorobenzene	<	0.1
11-Jan-06	Hexachlorobutadiene	<	0.11	13-Sep-11	1,2,4-Trimethylbenzene	<	0.1
11-Jan-06	Isopropylbenzene	<	0.15	13-Sep-11	1,2-Dichlorobenzene	<	0.1
11-Jan-06	Isopropylbenzene	<	0.15	13-Sep-11	1,2-dichloroethane	<	0.1
11-Jan-06	Isopropyltoluene	<	0.17	13-Sep-11	1,2-Dichloroethene	<	0.1
11-Jan-06	Isopropyltoluene	<	0.17	13-Sep-11	1,2-Dichloropropane	<	0.1
11-Jan-06	M,P-Xylene	<	0.38	13-Sep-11	1,3,5-Trimethylbenzene	<	0.1
11-Jan-06	M,P-Xylene	<	0.38	13-Sep-11	1,3-Dichlorobenzene	<	0.1
11-Jan-06	Methylene Chloride	<	0.1	13-Sep-11	1,3-Dichloropropane	<	0.1
11-Jan-06	Methylene Chloride	<	0.1	13-Sep-11	1-Methylnaphthalene	<	0.5
11-Jan-06	Monochlorobenzene	<	0.23	13-Sep-11	2,2-Dichloropropane	<	0.1
11-Jan-06	Monochlorobenzene	<	0.23	13-Sep-11	2,3-Dinitrotoluene	<	0.015
11-Jan-06	N-Butylbenzene	<	0.14	13-Sep-11	2,4,5-Trichlorophenol	<	0.5
11-Jan-06	N-Butylbenzene	<	0.14	13-Sep-11	2,4,6-Trichlorophenol	<	0.5
11-Jan-06	N-propylbenzene	<	0.15	13-Sep-11	2,4-Dichlorophenol	<	0.5
11-Jan-06	N-propylbenzene	<	0.15	13-Sep-11	2,4-Dimethylphenol	<	0.5
11-Jan-06	O-Chlorotoluene	<	0.19	13-Sep-11	2,4-Dinitrophenol	<	3
11-Jan-06	O-Chlorotoluene	<	0.19	13-Sep-11	2,4-Dinitrotoluene	<	0.015
11-Jan-06	O-Xylene	<	0.21	13-Sep-11	2,5-Dinitrotoluene	<	0.015
11-Jan-06	O-Xylene	<	0.21	13-Sep-11	2,6-Dinitrotoluene	<	0.015
11-Jan-06	P-Chlorotoluene	<	0.21	13-Sep-11	2-Chloronapthalene	<	0.5
11-Jan-06	P-Chlorotoluene	<	0.21	13-Sep-11	2-Chlorophenol	<	0.5
11-Jan-06	P-Dichlorobenzene	<	0.27	13-Sep-11	2-Methylnapthalene	<	0.5
11-Jan-06	P-Dichlorobenzene	<	0.27	13-Sep-11	2-Methylphenol	<	0.5
11-Jan-06	Styrene	<	0.28	13-Sep-11	2-Nitroaniline	<	0.5
11-Jan-06	Styrene	<	0.28	13-Sep-11	2-Nitrodiphenylamine	<	1.3
11-Jan-06	Tetrachloroethylene	<	0.17	13-Sep-11	2-Nitrophenol	<	0.5
11-Jan-06	Tetrachloroethylene	<	0.17	13-Sep-11	3,3-Dichlorobenzidine	<	3
11-Jan-06	Toluene	<	0.15	13-Sep-11	3,4-Dinitrotoluene	<	0.015
11-Jan-06	Toluene	<	0.15	13-Sep-11	3,5-Dinitrotoluene	<	0.015
11-Jan-06	Trans-1,3-Dichloropropene	<	0.18	13-Sep-11	3-Nitroaniline	<	0.5
11-Jan-06	Trans-1,3-Dichloropropene	<	0.18	13-Sep-11	4,6-Dinitro-o-cresol+F236	<	3
11-Jan-06	Tribromomethane	<	0.43	13-Sep-11	4-Bromophenyl Phenyl Ether	<	0.5
11-Jan-06	Tribromomethane	<	0.43	13-Sep-11	4-Chlorophenyl Phenyl Ether	<	0.5
11-Jan-06	Trichloroethylene		0.65	13-Sep-11	4-nitroaniline	<	3

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
11-Jan-06	Trichloroethylene		0.61	13-Sep-11	4-Nitrophenol	<	3
11-Jan-06	Vinyl Chloride	<	0.11	13-Sep-11	Acenapthene	<	0.5
11-Jan-06	Vinyl Chloride	<	0.11	13-Sep-11	Acenapthylene	<	0.5
05-Apr-06	2,3-Dinitrotoluene	<	0.005	13-Sep-11	Anthracene	<	0.5
05-Apr-06	2,3-Dinitrotoluene	<	0.005	13-Sep-11	Benzene	<	0.1
05-Apr-06	2,4-Dinitrotoluene		0.01	13-Sep-11	Benzidine	<	3
05-Apr-06	2,4-Dinitrotoluene		0.009	13-Sep-11	Benzo(a)anthracene	<	0.5
05-Apr-06	2,5-Dinitrotoluene	<	0.005	13-Sep-11	Benzo(g,h,i)perylene	<	0.5
05-Apr-06	2,5-Dinitrotoluene	<	0.005	13-Sep-11	Benzo(k)fluoranthene	<	0.5
05-Apr-06	2,6-Dinitrotoluene	<	0.008	13-Sep-11	Benzyl Alcohol	<	1.3
05-Apr-06	2,6-Dinitrotoluene	<	0.008	13-Sep-11	Bis(2-chloroethoxy)methane	<	0.5
05-Apr-06	3,4-Dinitrotoluene	<	0.009	13-Sep-11	Bis(2-chloroethyl) ether	<	0.5
05-Apr-06	3,4-Dinitrotoluene	<	0.009	13-Sep-11	Bis(2-chloroisopropyl)ether	<	0.5
05-Apr-06	3,5-Dinitrotoluene	<	0.004	13-Sep-11	Bis(2-ethylhexyl)phthalate	<	0.5
05-Apr-06	3,5-Dinitrotoluene	<	0.004	13-Sep-11	Bromobenzene	<	0.1
30-Jun-08	2,3-Dinitrotoluene	<	0.01	13-Sep-11	Bromochloromethane	<	0.1
30-Jun-08	2,4-Dinitrotoluene	<	0.01	13-Sep-11	Bromodichloromethane	<	0.1
30-Jun-08	2,5-Dinitrotoluene	<	0.01	13-Sep-11	Bromomethane	<	0.1
30-Jun-08	2,6-Dinitrotoluene	<	0.01	13-Sep-11	Butylbenzene Sec	<	0.1
30-Jun-08	3,4-Dinitrotoluene	<	0.016	13-Sep-11	Butylbenzene Tert	<	0.1
30-Jun-08	3,5-Dinitrotoluene	<	0.01	13-Sep-11	Butylbenzylphthalate	<	0.5
13-Sep-11	1,1,1,2-Tetrachloroethane	<	0.1	13-Sep-11	Carbazole	<	3
13-Sep-11	1,1,1-Trichloroethane	<	0.1	13-Sep-11	Carbon Tetrachloride	<	0.1
13-Sep-11	1,1,2,2-Tetrachloroethane	<	0.1	13-Sep-11	Chloroethane	<	0.1
13-Sep-11	1,1,2-Trichloroethane	<	0.1	13-Sep-11	Chloroform	<	0.1
13-Sep-11	1,1-Dichloroethane	<	0.1	13-Sep-11	Chloromethane	<	0.1
13-Sep-11	1,1-Dichloroethylene	<	0.1	13-Sep-11	Cis-1,2-dichloroethylene	<	0.1
13-Sep-11	1,1-Dichloropropene	<	0.1	13-Sep-11	Cis-1,3-Dichloropropene	<	0.1
13-Sep-11	1,2,3-Trichlorobenzene	<	0.1	13-Sep-11	Dibenzo(a,h)anthracene	<	0.5
13-Sep-11	1,2,3-Trichloropropane	<	0.1	13-Sep-11	Dibenzofuran	<	0.5
13-Sep-11	1,2,4-Trichlorobenzene	<	0.1	13-Sep-11	Dibromochloromethane	<	0.1
13-Sep-11	1,2,4-Trimethylbenzene	<	0.1	13-Sep-11	Dibromomethane	<	0.1
13-Sep-11	1,2-Dichlorobenzene	<	0.1	13-Sep-11	Dichlorodifluoromethane	<	0.1
13-Sep-11	1,2-dichloroethane	<	0.1	13-Sep-11	Diethyl Phthalate	<	0.5
13-Sep-11	1,2-Dichloroethene	<	0.1	13-Sep-11	Dimethyl Phthalate	<	0.5
13-Sep-11	1,2-Dichloropropane	<	0.1	13-Sep-11	Di-n-butyl Phthalate	<	0.5
13-Sep-11	1,3,5-Trimethylbenzene	<	0.1	13-Sep-11	Dinitrotolune, Total	<	0.015
13-Sep-11	1,3-Dichlorobenzene	<	0.1	13-Sep-11	Di-n-octyl Phthalate	<	0.5
13-Sep-11	1,3-Dichloropropane	<	0.1	13-Sep-11	Di-n-propylnitrosamine	<	0.5
13-Sep-11	1-Methylnaphthalene	<	0.5	13-Sep-11	Diphenylamine	<	0.5
13-Sep-11	2,2-Dichloropropane	<	0.1	13-Sep-11	Ethyl Ether	<	0.1
13-Sep-11	2,3-Dinitrotoluene	<	0.015	13-Sep-11	Ethylbenzene	<	0.1
13-Sep-11	2,4,5-Trichlorophenol	<	0.5	13-Sep-11	Fluoranthene	<	0.5
13-Sep-11	2,4,6-Trichlorophenol	<	0.5	13-Sep-11	Fluorene	<	0.5
13-Sep-11	2,4-Dichlorophenol	<	0.5	13-Sep-11	Fluorotrichloromethane	<	0.1
13-Sep-11	2,4-Dimethylphenol	<	0.5	13-Sep-11	Hexachlorobenzene	<	0.5
13-Sep-11	2,4-Dinitrophenol	<	3	13-Sep-11	Hexachlorobutadiene	<	0.1
13-Sep-11	2,4-Dinitrotoluene	<	0.015	13-Sep-11	Hexachlorocyclopentadiene	<	0.5
13-Sep-11	2,5-Dinitrotoluene	<	0.015	13-Sep-11	Hexachloroethane	<	0.5
13-Sep-11	2,6-Dinitrotoluene	<	0.015	13-Sep-11	Indeno(1,2,3-c,d)pyrene	<	0.5
13-Sep-11	2-Chloronapthalene	<	0.5	13-Sep-11	Isophorone	<	0.5
13-Sep-11	2-Chlorophenol	<	0.5	13-Sep-11	Isopropylbenzene	<	0.1
13-Sep-11	2-Methylnapthalene	<	0.5	13-Sep-11	Isopropyltoluene	<	0.1
13-Sep-11	2-Methylphenol	<	0.5	13-Sep-11	M,P-Xylene	<	0.2
13-Sep-11	2-Nitroaniline	<	0.5	13-Sep-11	M-Cresol(3-Methylphenol)	<	0.5
13-Sep-11	2-Nitrodiphenylamine	<	1.3	13-Sep-11	Methylene Chloride	<	0.2
13-Sep-11	2-Nitrophenol	<	0.5	13-Sep-11	Monochlorobenzene	<	0.1
13-Sep-11	3,3-Dichlorobenzidine	<	3	13-Sep-11	Napthalene	<	0.5

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
13-Sep-11	3,4-Dinitrotoluene	<	0.015	13-Sep-11	N-Butylbenzene	<	0.1
13-Sep-11	3,5-Dinitrotoluene	<	0.015	13-Sep-11	Nitrobenzene	<	0.5
13-Sep-11	3-Nitroaniline	<	0.5	13-Sep-11	N-nitrosodimethylamine	<	1.3
13-Sep-11	4,6-Dinitro-o-cresol	<	3	13-Sep-11	N-propylbenzene	<	0.1
13-Sep-11	4-Bromophenyl Phenyl Ether	<	0.5	13-Sep-11	O-Chlorotoluene	<	0.1
13-Sep-11	4-Chlorophenyl Phenyl Ether	<	0.5	13-Sep-11	O-Xylene	<	0.1
13-Sep-11	4-nitroaniline	<	3	13-Sep-11	P-chloroaniline	<	0.5
13-Sep-11	4-Nitrophenol	<	3	13-Sep-11	P-chloro-m-cresol	<	0.5
13-Sep-11	Acenapthene	<	0.5	13-Sep-11	P-Chlorotoluene	<	0.1
13-Sep-11	Acenapthylene	<	0.5	13-Sep-11	P-Dichlorobenzene	<	0.1
13-Sep-11	Anthracene	<	0.5	13-Sep-11	Pentachlorophenol	<	1.3
13-Sep-11	Benzene	<	0.1	13-Sep-11	Phenanthrene	<	0.5
13-Sep-11	Benzidine	<	3	13-Sep-11	Phenol	<	2
13-Sep-11	Benzo(a)anthracene	<	0.5	13-Sep-11	Pyrene	<	0.5
13-Sep-11	Benzo(g,h,i)perylene	<	0.5	13-Sep-11	Pyridine	<	1.3
13-Sep-11	Benzo(k)fluoranthene	<	0.5	13-Sep-11	Styrene	<	0.1
13-Sep-11	Benzyl Alcohol	<	1.3	13-Sep-11	Tetrachloroethylene	<	0.1
13-Sep-11	Bis(2-chloroethoxy)methane	<	0.5	13-Sep-11	Toluene	<	0.1
13-Sep-11	Bis(2-chloroethyl) ether	<	0.5	13-Sep-11	Trans-1,3-Dichloropropene	<	0.1
13-Sep-11	Bis(2-chloroisopropyl)ether	<	0.5	13-Sep-11	Tribromomethane	<	0.1
13-Sep-11	Bis(2-ethylhexyl)phthalate	<	0.5	13-Sep-11	Trichloroethylene	<	0.1
13-Sep-11	Bromobenzene	<	0.1	13-Sep-11	Vinyl Chloride	<	0.1
13-Sep-11	Bromochloromethane	<	0.1				
13-Sep-11	Bromodichloromethane	<	0.1				
13-Sep-11	Bromomethane	<	0.1				
13-Sep-11	Butylbenzene Sec	<	0.1				
13-Sep-11	Butylbenzene Tert	<	0.1				
13-Sep-11	Butylbenzylphthalate	<	0.5				
13-Sep-11	Carbazole	<	3				
13-Sep-11	Carbon Tetrachloride	<	0.1				
13-Sep-11	Chloroethane	<	0.1				
13-Sep-11	Chloroform	<	0.1				
13-Sep-11	Chloromethane	<	0.1				
13-Sep-11	Cis-1,2-dichloroethylene	<	0.1				
13-Sep-11	Cis-1,3-Dichloropropene	<	0.1				
13-Sep-11	Dibenzo(a,h)anthracene	<	0.5				
13-Sep-11	Dibenzofuran	<	0.5				
13-Sep-11	Dibromochloromethane	<	0.1				
13-Sep-11	Dibromomethane	<	0.1				
13-Sep-11	Dichlorodifluoromethane	<	0.1				
13-Sep-11	Diethyl Phthalate	<	0.5				
13-Sep-11	Dimethyl Phthalate	<	0.5				
13-Sep-11	Di-n-butyl Phthalate	<	0.5				
13-Sep-11	Dinitrotolune, Total	<	0.015				
13-Sep-11	Di-n-octyl Phthalate	<	0.5				
13-Sep-11	Di-n-propylnitrosamine	<	0.5				
13-Sep-11	Diphenylamine	<	0.5				
13-Sep-11	Ethyl Ether	<	0.1				
13-Sep-11	Ethylbenzene	<	0.1				
13-Sep-11	Fluoranthene	<	0.5				
13-Sep-11	Fluorene	<	0.5				
13-Sep-11	Fluorotrichloromethane	<	0.1				
13-Sep-11	Hexachlorobenzene	<	0.5				
13-Sep-11	Hexachlorobutadiene	<	0.1				
13-Sep-11	Hexachlorocyclopentadiene	<	0.5				
13-Sep-11	Hexachloroethane	<	0.5				
13-Sep-11	Indeno(1,2,3-c,d)pyrene	<	0.5				
13-Sep-11	Isophorone	<	0.5				

Table A.1

Groundwater Analytical Results

Parcel R - WDNR Closure Request

Badger Army Ammunition Plant

Date Sampled	Analyte	LOD Flag	Result (ug/l)	Date Sampled	Analyte	LOD Flag	Result (ug/l)
13-Sep-11	Isopropylbenzene	<	0.1				
13-Sep-11	Isopropyltoluene	<	0.1				
13-Sep-11	M,P-Xylene	<	0.2				
13-Sep-11	M-Cresol(3-Methylphenol)	<	0.5				
13-Sep-11	Methylene Chloride	<	0.2				
13-Sep-11	Monochlorobenzene	<	0.1				
13-Sep-11	Napthalene	<	0.5				
13-Sep-11	N-Butylbenzene	<	0.1				
13-Sep-11	Nitrobenzene	<	0.5				
13-Sep-11	N-nitrosodimethylamine	<	1.3				
13-Sep-11	N-propylbenzene	<	0.1				
13-Sep-11	O-Chlorotoluene	<	0.1				
13-Sep-11	O-Xylene	<	0.1				
13-Sep-11	P-chloroaniline	<	0.5				
13-Sep-11	P-chloro-m-cresol	<	0.5				
13-Sep-11	P-Chlorotoluene	<	0.1				
13-Sep-11	P-Dichlorobenzene	<	0.1				
13-Sep-11	Pentachlorophenol	<	1.3				
13-Sep-11	Phenanthrene	<	0.5				
13-Sep-11	Phenol	<	2				
13-Sep-11	Pyrene	<	0.5				
13-Sep-11	Pyridine	<	1.3				
13-Sep-11	Styrene	<	0.1				
13-Sep-11	Tetrachloroethylene	<	0.1				
13-Sep-11	Toluene	<	0.1				
13-Sep-11	Trans-1,3-Dichloropropene	<	0.1				
13-Sep-11	Tribromomethane	<	0.1				
13-Sep-11	Trichloroethylene		0.27				
13-Sep-11	Vinyl Chloride	<	0.1				

LOD - Limit of Detection
µg/l - micrograms per liter

Table A.2.
Pre-Remedial Soil Analytical Exceedances
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

Sample ID	Project Phase	Status	Date Sampled	Depth (feet bgs)	Lead (mg/kg)	Pentachlorophenol (mg/kg)	PCB-1254 (mg/kg)	PCB-1254 [2C] (mg/kg)	PCB-1260 (mg/kg)	PCB-1260 [2C] (mg/kg)
WCP-9-0.5	Remedial Investigation	Removed	1/9/2012	0.5	**72.8 D**	**5.5**	<0.110	<0.110	0.181	0.216
PCR-021500-2-0.5	Remedial Investigation	Removed	6/18/2012	0.5	43.3	NA	**2.2**	NA	<0.097	NA
PCR-050300-2-0.5	Remedial Investigation	Removed	6/19/2012	0.5	16.1	NA	<0.033	NA	**1.4**	NA
PCR-052200-1-0.5	Remedial Investigation	Removed	6/19/2012	0.5	**50.2**	NA	<0.033	NA	**1.2**	NA
PCR-252300-4-0.5	Remedial Investigation	Removed	6/19/2012	0.5	16.7	NA	**0.42**	NA	<0.019	NA
PCR-252300-3-0.5	Remedial Investigation	Removed	6/19/2012	0.5	11	NA	**0.77**	NA	<0.019	NA
Cleanup Objective†					50/250*	0.89	0.22	0.22	0.22	0.22

bgs - Below ground surface
mg/kg = Milligrams per kilogram
Bold text identifies a regulatory exceedance
NA - Not analyzed
PCB - Polychlorinated Biphenyl
* - When lead is the only contaminant of concern.
† - See Parcel R Case Closure Request, Table 1

Table A.3.
Pre-Remedial Soil Analytical Exceedances
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

Sample ID	Project Phase	Status	Date Sampled	Depth (feet bgs)	Lead (mg/kg)	Pentachlorophenol (mg/kg)	PCB-1254 (mg/kg)	PCB-1254 [2C] (mg/kg)	PCB-1260 (mg/kg)	PCB-1260 [2C] (mg/kg)
WCP-9A-0.5	Remedial Action	Remaining	2/7/2012	0.5	6.7 J,D	<0.13	NA	NA	NA	NA
WCP-9B-0.5	Remedial Action	Remaining	2/7/2012	0.5	7.5 D	<0.13	NA	NA	NA	NA
WCP-9C-0.5	Remedial Action	Remaining	2/7/2012	0.5	91.4 D	<0.13	NA	NA	NA	NA
WCP-9D-4.0	Remedial Action	Remaining	2/7/2012	4.0	10.8 D	<0.14	NA	NA	NA	NA
021500-2A-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	0.036 J	NA	<0.023	NA
021500-2B-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.017	NA	<0.021	NA
021500-2C-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	0.14	NA	<0.021	NA
021500-2D-4.0	Remedial Action	Remaining	7/19/2012	4.0	NA	NA	0.049 J	NA	<0.023	NA
050300-2A-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.019	NA	0.099	NA
050300-2B-2.0	Remedial Action	Removed	7/19/2012	2.0	NA	NA	<0.019	NA	**0.39**	NA
050300-2B1-2.0	Remedial Action	Remaining	8/16/2012	2.0	NA	NA	<0.118	<0.118	<0.118	<0.118
050300-2C-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.019	NA	<0.023	NA
050300-2D-4.0	Remedial Action	Remaining	7/19/2012	4.0	NA	NA	<0.020	NA	<0.024	NA
052200-1A-2.0	Remedial Action	Remaining	7/19/2012	2.0	20.4 D	NA	<0.023	NA	0.18	NA
052200-1B-2.0	Remedial Action	Remaining	7/19/2012	2.0	15.4 D	NA	<0.020	NA	0.17	NA
052200-1C-2.0	Remedial Action	Remaining	7/19/2012	2.0	14.4 D	NA	<0.019	NA	<0.022	NA
052200-1D-4.0	Remedial Action	Remaining	7/19/2012	4.0	6.6 JD	NA	<0.018	NA	<0.022	NA
052200-3A-2.0	Remedial Action	Remaining	7/19/2012	2.0	14.4 D	NA	<0.020	NA	0.12	NA
052200-3B-2.0	Remedial Action	Remaining	7/19/2012	2.0	19.9 D	NA	<0.019	NA	<0.023	NA
052200-3C-2.0	Remedial Action	Remaining	7/19/2012	2.0	39.9 D	NA	<0.017	NA	0.16	NA
052200-3D-4.0	Remedial Action	Remaining	7/19/2012	4.0	11.9 D	NA	<0.020	NA	<0.024	NA
252300-4A-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.020	NA	<0.024	NA
252300-4B-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.019	NA	<0.023	NA
252300-4C-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.020	NA	<0.024	NA
252300-4D-4.0	Remedial Action	Remaining	7/19/2012	4.0	NA	NA	<0.020	NA	<0.023	NA
252300-3A-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.019	NA	<0.023	NA
252300-3B-2.0	Remedial Action	Removed	7/19/2012	2.0	NA	NA	**0.64**	NA	<0.021	NA
252300-3B1-2.0	Remedial Action	Remaining	8/15/2012	2.0	NA	NA	<0.116	<0.116	<0.116	<0.116
252300-3C-2.0	Remedial Action	Remaining	7/19/2012	2.0	NA	NA	<0.019	NA	<0.023	NA
252300-3D-4.0	Remedial Action	Remaining	7/19/2012	4.0	NA	NA	<0.020	NA	<0.024	NA
Cleanup Objective†					50/250*	0.89	0.22	0.22	0.22	0.22

bgs - Below ground surface
mg/kg = Milligrams per kilogram
Bold text identifies a regulatory exceedance
NA - Not analyzed
PCB - Polychlorinated Biphenyl
D - Elevated Limit of Detection (LOD) and Limit of Quantitation (LOQ) are due to dilution/volume of the sample.
J - Analytical result is between LOD and LOQ.
* - When lead is the only contaminant of concern.
† - See Parcel R Case Closure Request, Table 1

Data Tables Not Relevant To Case Closure Request

A.4. Pre and Post Remaining Soil Contamination Soil Analytical Table

All remedial action sites have either received regulatory closure or have met cleanup objectives protective of direct contact.

Data Tables Not Relevant To Case Closure Request

A.5. Vapor Analytical Table

Soil gas surveys were completed at Powerhouse #1, Oil and Solvent Store, Fire Training and Practice area, Oil Drum Store, and the Laboratories and Solvent Storage Building area. Powerhouse #1 and the Fire Training and Practice and the Laboratories and Solvent Storage Building areas were the subject of remedial action. Information pertaining to the soil gas survey is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13.

Data Tables Not Relevant To Case Closure Request

A.6. Other Media of Concern

There is no surface water and/or sediment in Parcel R.

Table A.7
Groundwater Elevation Data
Parcel R - WDNR Closure Request
Badger Army Ammunition Plant

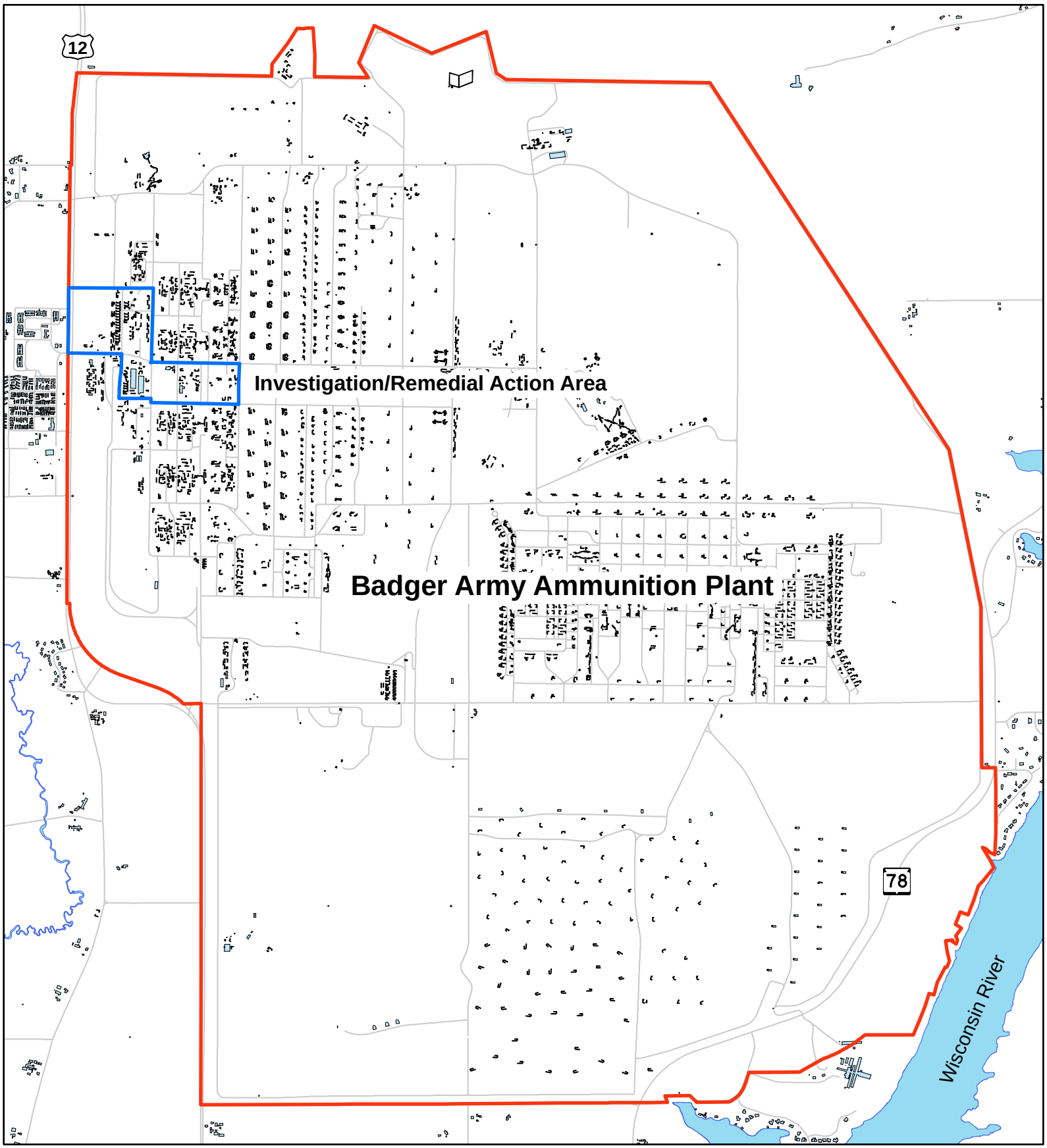
RIN-0501A		RIN-0501C	
Date	Elevation	Date	Elevation
31-Oct-05	786.75	31-Oct-05	786.40
11-Jan-06	785.96	11-Jan-06	785.64
30-Jun-08	790.09	30-Jun-08	789.76
13-Sep-11	792.39	13-Sep-11	792.20

Elevations are expressed in mean sea level (msl)

Data Tables Not Relevant To Case Closure Request

A.8. Other

No other remedial actions beyond the environmental remedial investigations and actions, demolition projects and sewer removal-related activities have taken place in Parcel R.



Legend

- Badger Army Ammunition Plant Boundary
- Investigation/Remedial Action Area
- Paved Road
- Existing Building
- Former Building Footprint

Figure B.1.a.

Site Location Map
Parcel R - Wisconsin Department of
Natural Resources Case Closure Request
Badger Army Ammunition Plant

1 inch = 2,500 feet

0 3,500 7,000 Feet

D:\GIS_Projects\WDNR Closure Request\
R\Figure B1a_Site Loc

Legend

- Existing Building
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure B.1.b.

Detailed Site Map
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 125 feet

0 325 650 Feet

maingis_disk\GIS_Projects\WDNR Closure Request\R\Figure B1b_Detailed Site Map.mxd

B.1.c. RR Site Map

Legend

- Open Site (ongoing cleanup)
- Closed Site (completed cleanup)
- Rivers and Streams
- Open Water
- Cities
- Villages

0.2 0 0.09 0.2 Miles

NAD_1983_HARN_Wisconsin_TM

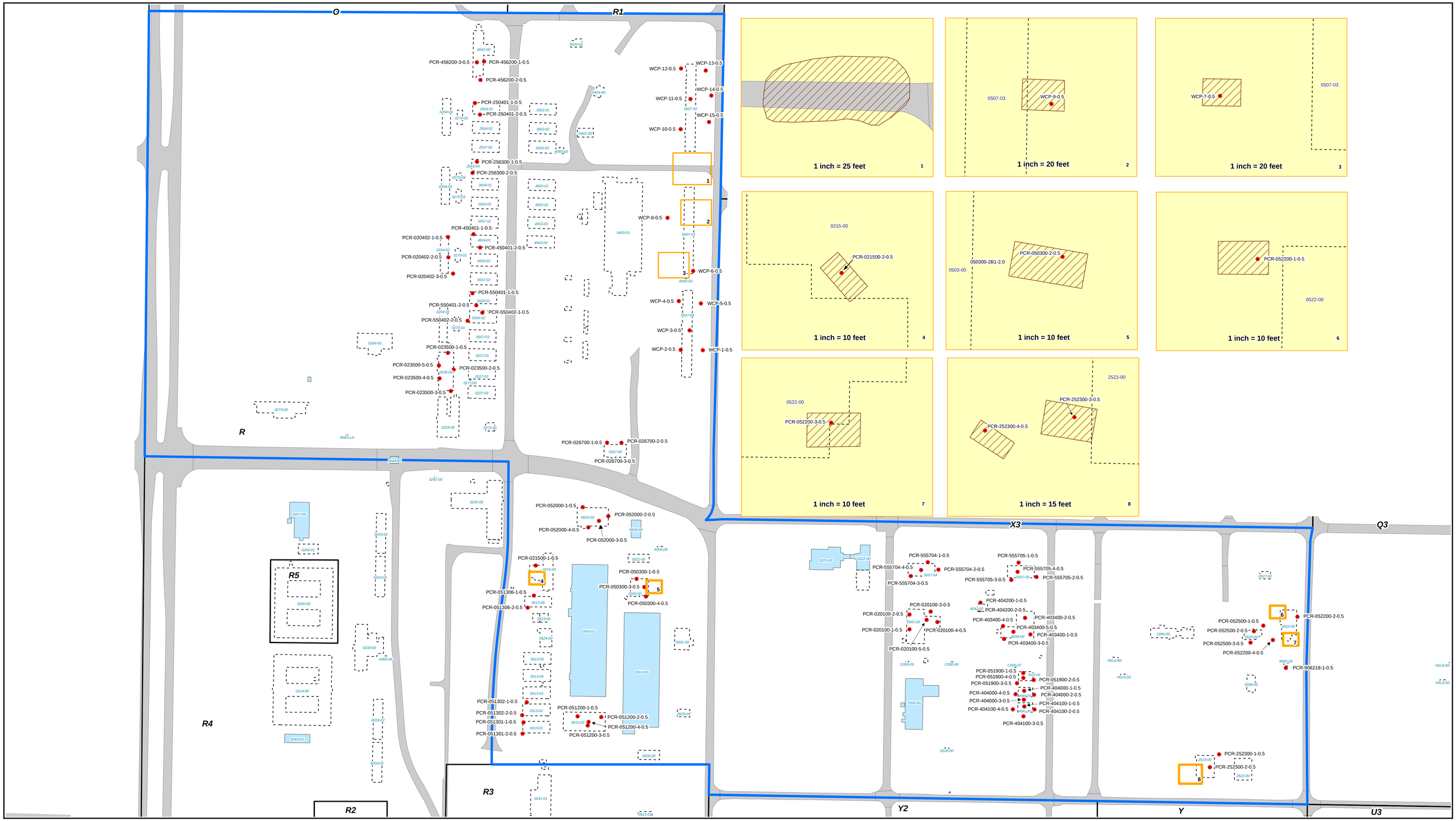
1: 5,400

© Latitude Geographics Group Ltd.

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

Note: Not all sites are mapped.

Notes



Legend

- Remedial Investigation Sample Location
- Remedial Excavation Boundary
- Existing Building
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

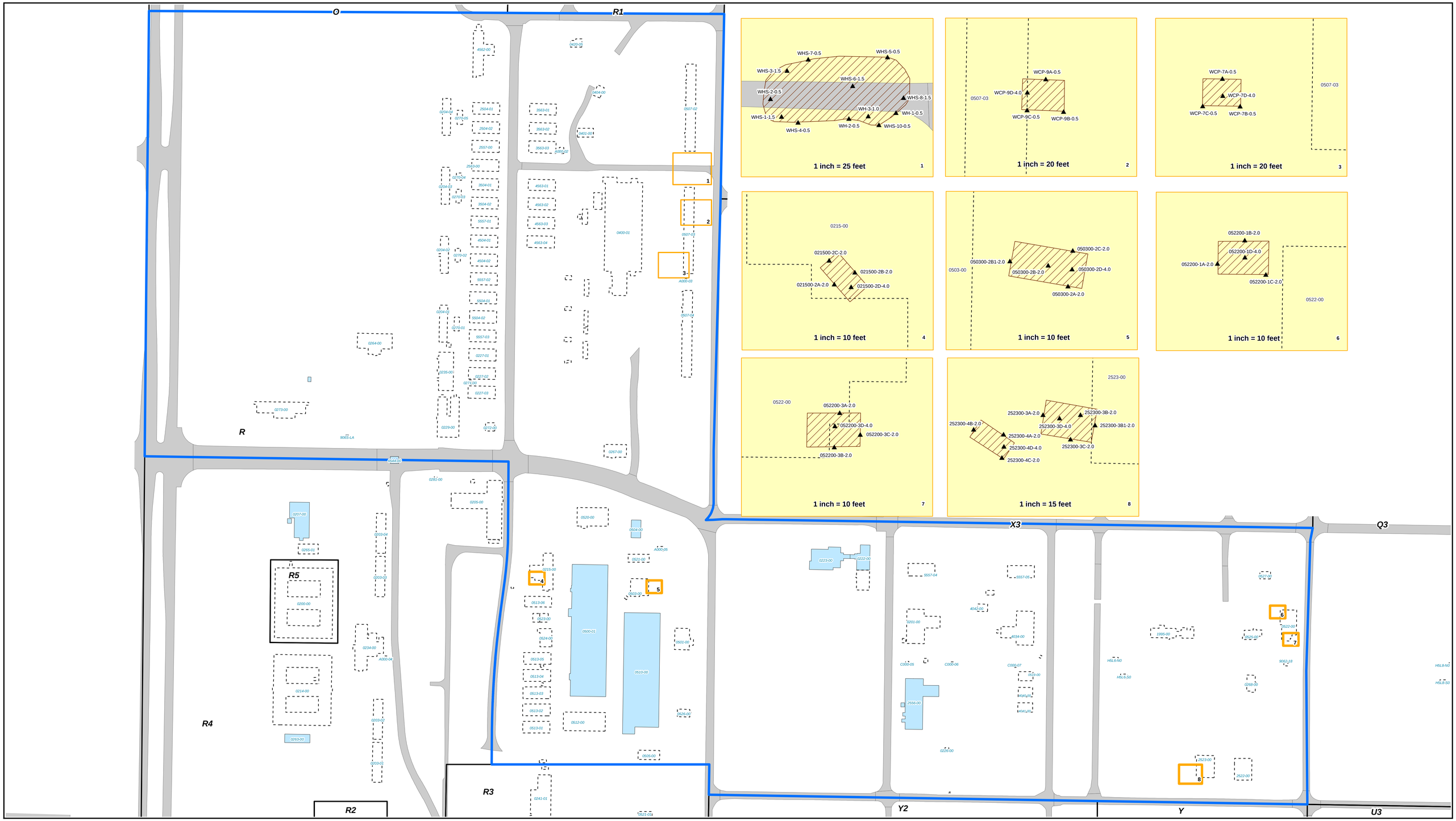
Figure B.2.a.

Post-Demolition Pre-Remedial Soil Contamination Sample Location Map
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 125 feet

0 325 650 Feet

maingis_disk\GIS_Projects\WDNR Closure Request\R\Figure B2a Pre-Remedial.mxd



Legend

- Remedial Action Sample Location
- Remedial Excavation Boundary
- Existing Building
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Accountt #
- Paved Road

Figure B.2.b.

Post-Demolition Post-Remedial Soil Contamination Sample Location Map
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 125 feet

0 325 650 Feet

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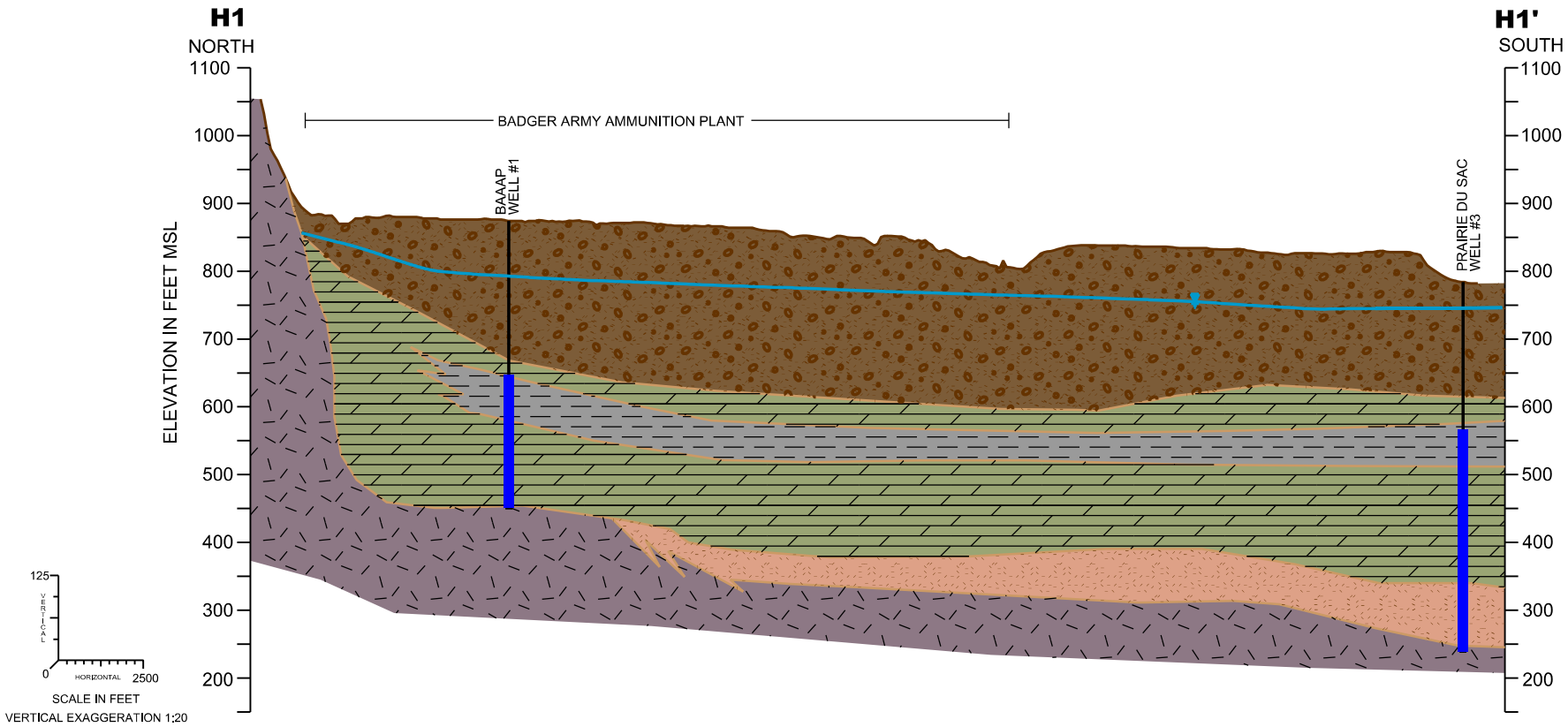
maingis_disk\GIS_Projects\WDNR Closure Request\R\Figure B2b_Demo Post-Remedial.mxd

Figures Not Relevant To Case Closure Request

B.2.c. Pre/Post Remaining Soil Contamination

All remedial action sites have either received regulatory closure or have met cleanup objectives protective of direct contact.



LEGEND

- BAAAP WELL #1 — WELL DESIGNATION; SUFFIXES REFER TO WATER TABLE WELL (A) AND PIEZOMETER (B,C,D &E)
- GROUND SURFACE
- WATER TABLE ELEVATION
- DRINKING WATER WELL SCREEN
- BOTTOM OF EXPLORATION

GEOLOGIC DESCRIPTIONS:

- SAND AND GRAVEL, AQUIFER
- EAU CLAIRE FORMATION, AQUITARD/AQUIFER (SHALE, DOLOMITE, SILTSTONE, SANDSTONE)
- EAU CLAIRE FORMATION, AQUITARD (SHALE)
- MT. SIMON FORMATION, AQUIFER (SANDSTONE)
- BARABOO FORMATION, AQUITARD (QUARTZITE)

NOTES:
ADAPTED FROM GOTKOWITZ AND OTHERS (2005), HYDROGEOLOGY AND SIMULATION OF GROUNDWATER FLOW IN SAUK COUNTY, WISCONSIN

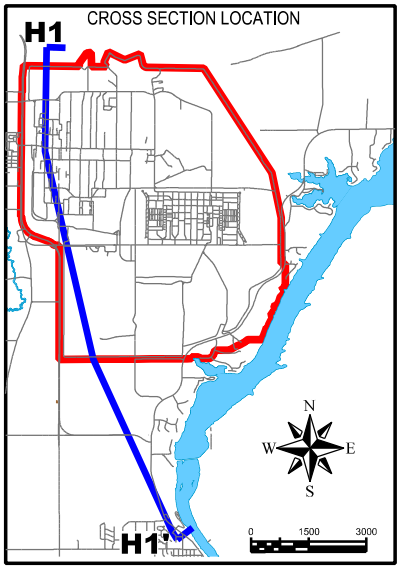


Figure B.3.a

Parcel R-WDNR Closure Request

FIGURE 4

GENERALIZED GEOLOGIC CROSS SECTION NORTH-SOUTH

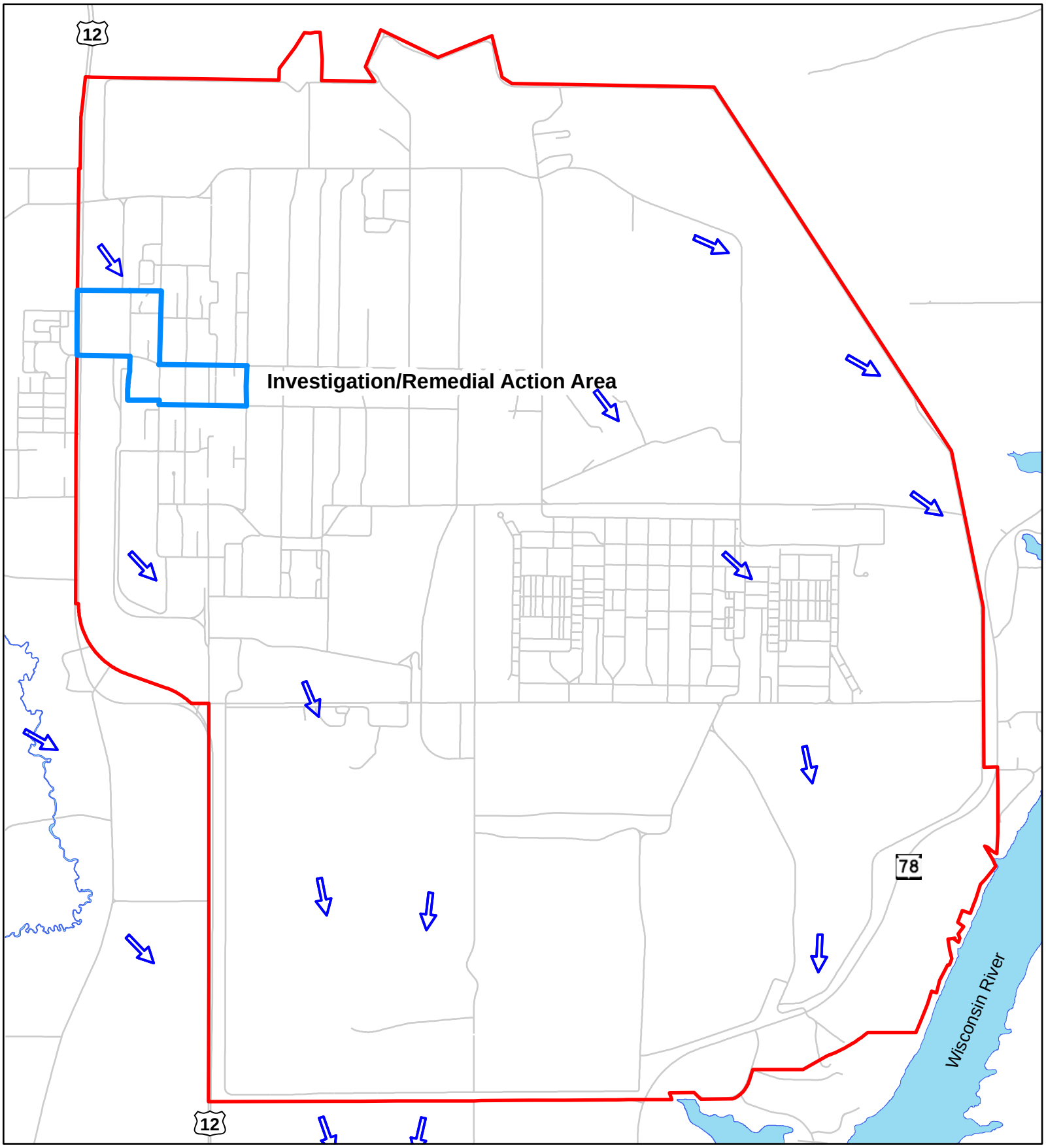
ALTERNATIVE FEASIBILITY STUDY
BADGER ARMY AMMUNITION PLANT

BTS
BADGER TECHNICAL SERVICES

Figures Not Relevant To Case Closure Request

B.3.b. Groundwater Isoconcentration

Groundwater concentrations exceeding Chapter NR 140, Wisconsin Administrative Code standards were not identified in the most recent sampling event in Parcel R.



Legend

- Badger Army Ammunition Plant Boundary
- Paved Road
- Groundwater Flow
- Wisconsin River
- Parcel R Boundary

Figure B.3.c.

Groundwater Flow Map
Parcel R - Wisconsin Department of
Natural Resources Case Closure Request
Badger Army Ammunition Plant

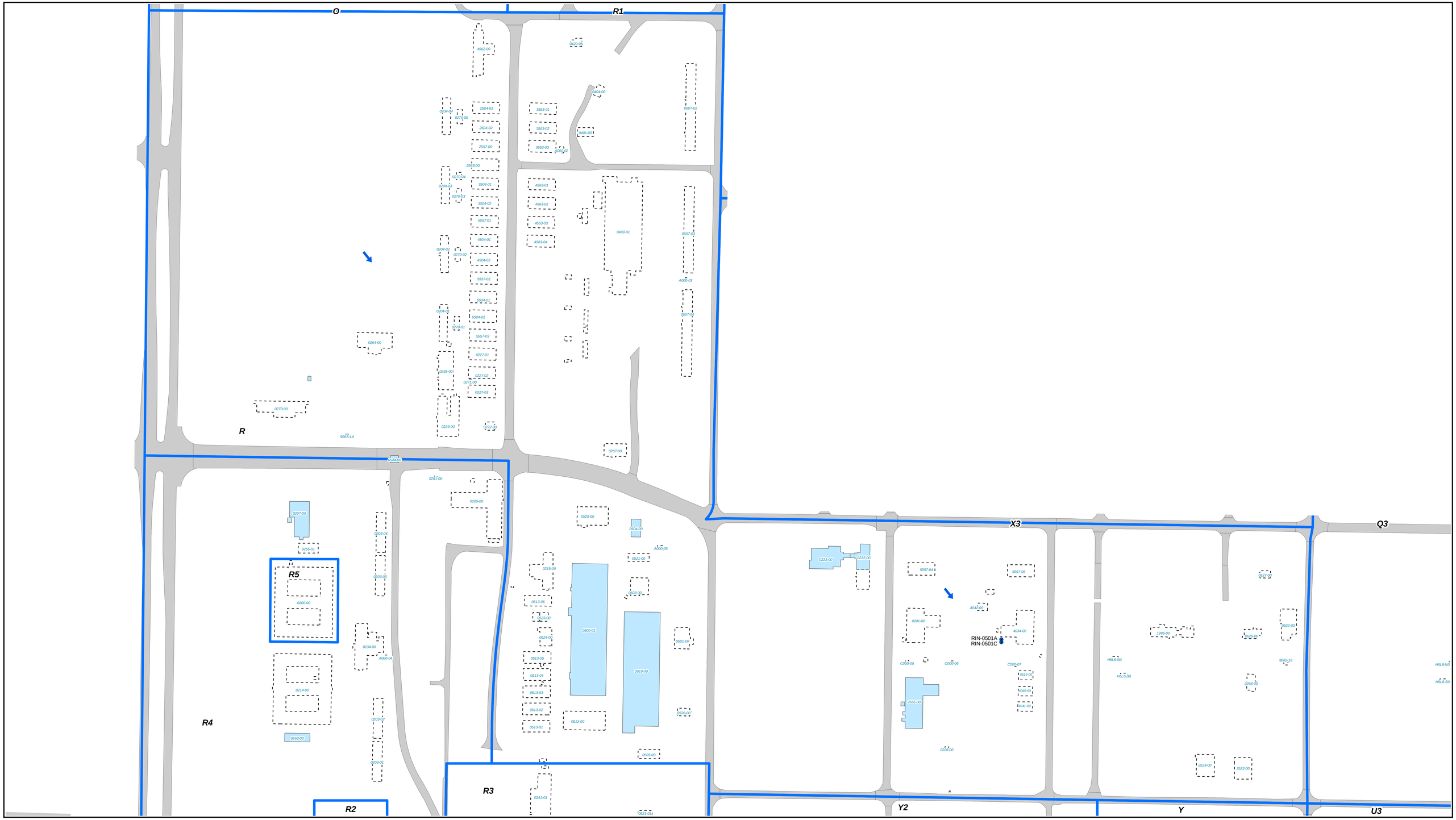
1 inch = 2,500 feet

0 1,800 3,600 7,200 Feet

BTS
BADGER TECHNICAL SERVICES

N

GIS_Projects\WDNR Closure Request\
R\Figure B3c GW Flow Map



Legend

- Groundwater Monitoring Well Location
- Groundwater Flow Direction
- Existing Building
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure B.3.d.

Groundwater Monitoring Well Location Map
Parcel R - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 125 feet

0 325 650 Feet

maingis_disk\GIS_Projects\WDNR Closure Request\R\Figure B3d GW Wells.mxd

Figures Not Relevant To Case Closure Request

B.4.a. Vapor Intrusion Map

Soil gas surveys were completed at Powerhouse #1, Oil and Solvent Store, Fire Training and Practice area, Oil Drum Store, and the Laboratories and Solvent Storage Building area. Powerhouse #1 and the Fire Training and Practice and the Laboratories and Solvent Storage Building areas were the subject of remedial action. Information pertaining to the soil gas survey is summarized in the Badger Technical Services, LLC, 2015, Parcel R - Wisconsin Department of Natural Resources Closure Request report, Pages 2 - 13.

Figures Not Relevant To Case Closure Request

B.4.b. Other Media of Concern

There is no surface water and/or sediment in Parcel R.

Figures Not Relevant To Case Closure Request

B.4.c. Other

No other remedial actions beyond the environmental remedial investigations and actions, demolition projects and sewer removal-related activities have taken place in Parcel R.

Documentation of Remedial Action (Attachment C)

DISCLAIMER

Documents contained in Attachment C of the Case Closure – GIS Registry (Form 4400-202) are not included in the electronic version (GIS Registry Packet) available on RR Sites Map to limit file size.

For information on how to obtain a copy or to review the file, please contact the Remediation & Redevelopment (RR) Environmental Program Associate (EPA) at dnr.wi.gov/topic/Brownfields/Contact.html

WISCONSIN
DEPT. OF NATURAL RESOURCES

Maintenance Plan Not Relevant To Case Closure Request

D.1. Location Map(s)

Maintenance plan not required for closure.

Maintenance Plan Not Relevant To Case Closure Request

D.2. Brief Descriptions

Maintenance plan not required for closure.

Maintenance Plan Not Relevant To Case Closure Request

D.3. Description of Maintenance Action(s)

Maintenance plan not required for closure.

Maintenance Plan Not Relevant To Case Closure Request

D.4. Inspection Log

Maintenance plan not required for closure.

Maintenance Plan Not Relevant To Case Closure Request

D.5. Contact Information

Maintenance plan not required for closure.

Maintenance Plan Not Relevant To Case Closure Request

D.6. Photographs

Maintenance plan not required for closure.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name BAAP - Laboratory Solvent	Local Grid Location of Well _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name RIN-0501A
Facility License, Permit or Monitoring No. 3481	Local Grid Origin ☐ (estimated: ☒) or Well Location ☒ Lat. 43 ° 22 ' 54 " Long. 89 ° 45 ' 23 " or	Wis. Unique Well No. VL954 / DNR Well ID No. 446
Facility ID 157053930	St. Plane 498891.7 ft. N, 2032471.6 ft. E. ☐ N	Date Well Installed 08 / 09 / 2005 m m d d y y y y
Type of Well Well Code 11 / mw	Section Location of Waste/Source ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: Name (first, last) and Firm Vince Meindel Layne Christensen Company
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number _____

A. Protective pipe, top elevation 3 ft. MSL

B. Well casing, top elevation 2.5 ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 4 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
sonic Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

_____

E. Bentonite seal, top _____ ft. MSL or 72 ft.

F. Fine sand, top _____ ft. MSL or 80 ft.

G. Filter pack, top _____ ft. MSL or 82 ft.

H. Screen joint, top _____ ft. MSL or 85 ft.

I. Well bottom _____ ft. MSL or 100 ft.

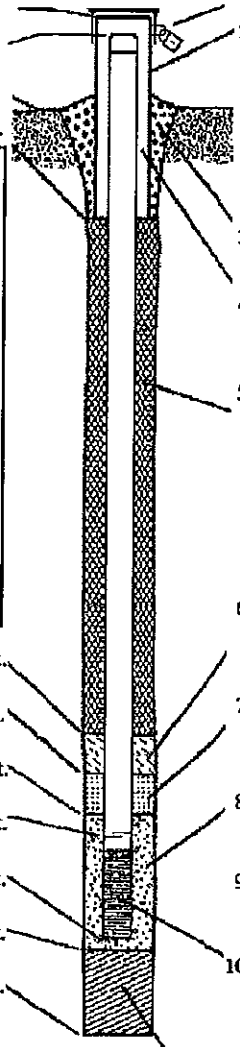
J. Filter pack, bottom _____ ft. MSL or 100 ft.

K. Borehole, bottom _____ ft. MSL or 100 ft.

L. Borehole, diameter 6.7 in.

M. O.D. well casing 2.7 in.

N. I.D. well casing 2.3 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04
_____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☒ 30
Concrete ☐ 01
3/8 chips Other ☐
4. Material between well casing and protective pipe:
Bentonite ☐ 30
sand Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. 20 % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 8 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley 4000
b. Volume added 1 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. RW Sidley 10/20
b. Volume added 6.5 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
_____ Other ☐
10. Screen material: Sch 80 PVC
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
_____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 15 ft.
11. Backfill material (below filter pack): None ☐ 14
_____ Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
[signature]	Layne Christensen Company

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater [X] Waste Management [ ]
Remediation/Redevelopment [ ] Other [ ] _____

Facility/Project Name	County Name	Well Name
BAAP - Laboratory Solvent	SAUK	RIN-0501A

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
3481	57	VL954	446

1. Can this well be purged dry? [X] Yes [ ] No

2. Well development method
   - surged with bailer and bailed [ ] 41
   - surged with bailer and pumped [ ] 61
   - surged with block and bailed [ ] 42
   - surged with block and pumped [ ] 62
   - surged with block, bailed and pumped [X] 70
   - compressed air [ ] 20
   - bailed only [ ] 10
   - pumped only [ ] 51
   - pumped slowly [ ] 50
   - Other _____ [ ]

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 102.5 ft.

5. Inside diameter of well 2.3 in.

6. Volume of water in filter pack and well casing ____ gal.

7. Volume of water removed from well 60 gal.

8. Volume of water added (if any) ____ gal.

9. Source of water added _____

10. Analysis performed on water added? [ ] Yes [ ] No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. ____ ft.	____ ft.
Date	b. 09 / 12 / 2005 (m m d d y y y y)	09 / 12 / 2005 (m m d d y y y y)
Time	c. ____ : ____ [ ] a.m. [ ] p.m.	____ : ____ [ ] a.m. [ ] p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear [ ] 10 Turbid [X] 15 (Describe)	Clear [ ] 20 Turbid [X] 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Vince Last Name: Meindel
Firm: Layne Christensen Company

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Joan Last Name: Kenney
Facility/Firm: Badger Army Ammunition Plant
Street: 2 Badger Road
City/State/Zip: Baraboo WI 53913-5000

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Keith Meyers
Print Name: Keith Meyers
Firm: Layne Christensen Company

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: BAAP - Laboratory Solvent	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: RIN-0501C
Facility License, Permit or Monitoring No.: 3481	Local Grid Origin ☐ (estimated: ☒) or Well Location ☒ Lat. 43 ° 22 ' 54 " Long. 89 ° 45 ' 23 " or	Wis. Unique Well No.: VL957 / DNR Well ID No.: 447
Facility ID: 157053930	St. Plane 498899.8 ft. N, 2032471.8 ft. E. ☐N	Date Well Installed: 08 / 04 / 2005 (m m d d y y y y)
Type of Well: Well Code 12 / pz	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Vince Meindel, Layne Christensen Company
Distance from Waste/Source ____ ft. Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known; Gov. Lot Number: ____	

A. Protective pipe, top elevation 3 ft. MSL

B. Well casing, top elevation 2.5 ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 4 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0; Hollow Stem Auger ☐ 4 1; Other ☒ (sonic)

15. Drilling fluid used: Water ☐ 0 2; Air ☐ 0 1; Drilling Mud ☐ 0 3; None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required): _____

E. Bentonite seal, top ____ ft. MSL or 139 ft.

F. Fine sand, top ____ ft. MSL or 144 ft.

G. Filter pack, top ____ ft. MSL or 148 ft.

H. Screen joint, top ____ ft. MSL or 150.5 ft.

I. Well bottom ____ ft. MSL or 155.5 ft.

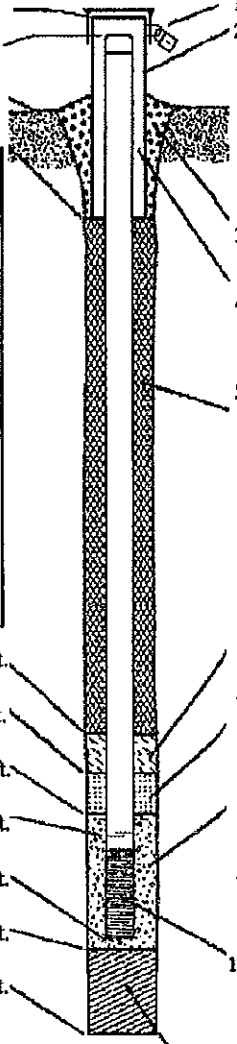
J. Filter pack, bottom ____ ft. MSL or 158 ft.

K. Borehole, bottom ____ ft. MSL or 158 ft.

L. Borehole, diameter 6.7 in.

M. O.D. well casing 2.9 in.

N. I.D. well casing 2.3 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4 in.
b. Length: 5 ft.
c. Material: Steel ☒ 0 4; Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☒ 3 0; Concrete ☐ 0 1; Other ☐ (3/8 Chips)
4. Material between well casing and protective pipe: Bentonite ☐ 3 0; Other ☐ (Sand)
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 3 1
d. 20 % Bentonite . . . . . Bentonite-cement grout ☐ 5 0
e. 20 ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1; Tremie pumped ☒ 0 2; Gravity ☐ 0 8
6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 3 2
c. _____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley 4000
b. Volume added 1 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. RW Sidley 10/20
b. Volume added 2 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☐ 2 3; Flush threaded PVC schedule 80 ☒ 2 4; Other ☐ _____
10. Screen material: Sch 80 PVC
a. Screen type: Factory cut ☒ 1 1; Continuous slot ☐ 0 1; Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: ____ ft.
11. Backfill material (below filter pack): None ☐ 1 4; Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Layne Christensen Company

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater [ ] Waste Management [ ]
Remediation/Redevelopment [X] Other [ ] _____

Facility/Project Name	County Name	Well Name
BAAP - Laboratory Solvent	SAUK	RIN-0501C

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
3481	57	VL957	447

1. Can this well be purged dry? [ ] Yes [X] No

2. Well development method
   - surged with bailer and bailed [ ] 41
   - surged with bailer and pumped [ ] 61
   - surged with block and bailed [ ] 42
   - surged with block and pumped [ ] 62
   - surged with block, bailed and pumped [X] 70
   - compressed air [ ] 20
   - bailed only [ ] 10
   - pumped only [ ] 51
   - pumped slowly [ ] 50
   - Other _____ [ ]

3. Time spent developing well 90 min.

4. Depth of well (from top of well casisng) 158.5 ft.

5. Inside diameter of well 2.3 in.

6. Volume of water in filter pack and well casing ____ gal.

7. Volume of water removed from well 280 gal.

8. Volume of water added (if any) ____ gal.

9. Source of water added _____

10. Analysis perfonned on water added? [ ] Yes [ ] No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. ____ ft.	____ ft.
Date	b. 09 / 12 / 2005 (m m / d d / y y y y)	09 / 12 / 2005 (m m / d d / y y y y)
Time	c. ____ : ____ [ ] a.m. [ ] p.m.	____ : ____ [ ] a.m. [ ] p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear [ ] 10 Turbid [X] 15 (Describe)	Clear [X] 20 Turbid [ ] 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Vince Last Name: Meindel
Firm: Layne Christensen Company

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Joan Last Name: Kenney
Facility/Firm: Badger Army Ammunition Plant
Street: 2 Badger Road
City/State/Zip: Baraboo WI 53913-5000

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Keith Meyers
Print Name: Keith Meyers
Firm: Layne Christensen Company

NOTE: See instructions for more information including a list of county codes and well type codes.

Notifications to Owners of Impacted Properties

Not applicable. The releases on Parcel R have not impacted off-site properties.

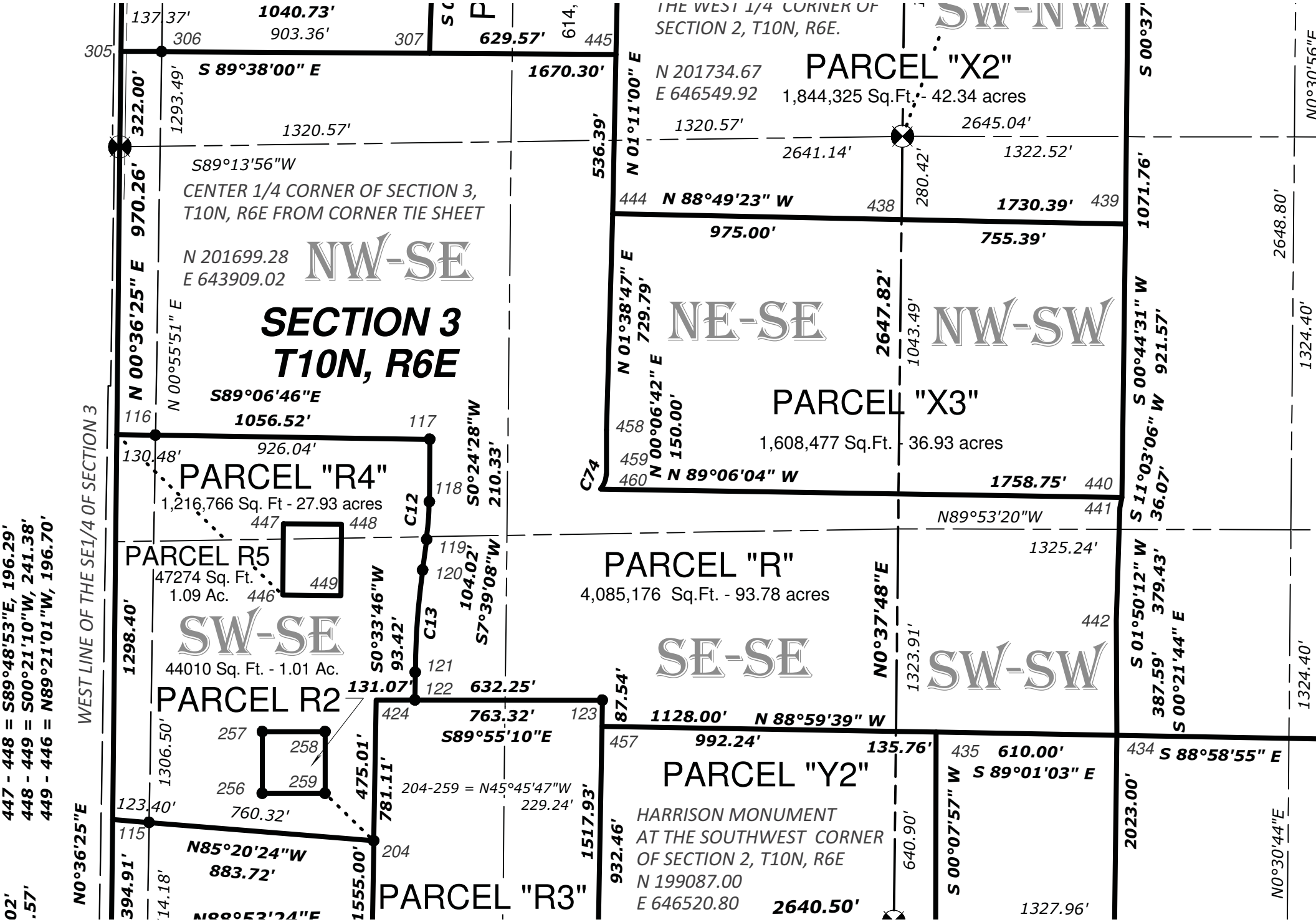
The Badger Army Ammunitions Plant land was acquired by the United States for use as an ammunition plant, so under ss. 1.02(intro.) and (1), Wis. States., it is a “site for the erection of …magazines, arsenals,…” over which the United States has exclusive jurisdiction as a “federal enclave.” Once Wisconsin cedes exclusive jurisdiction to the United States over a place or tract of land within the state pursuant to ss. 1.02(1) and 1.03, States., the United States retains exclusive jurisdiction” so long… as the place or tract shall remain the property of the United States.” To date, Parcel R remains United States property subject to the exclusive jurisdiction of the United States.

Parcel "R"

A parcel of land located in the SW1/4 of the NE1/4, the SE1/4 of the NE1/4, the NW1/4 of the SE1/4, the NE1/4 of the SE1/4, the SW1/4 of the SE1/4 and the SE1/4 of the SE1/4 of Section 3, the SW1/4 of the SW1/4 and the NW1/4 of the SW1/4 of Section 2, all in T10N, R6E, Town of Sumpter, Sauk County, Wisconsin more particularly described as follows:

Beginning at the southwest corner of the SW1/4 of the NE1/4 of said Section 3; thence N00°40'57"E along the west line of said SW1/4 of the NE1/4, 322.00 ft.; thence S89°38'00"E, 1670.30 ft.; thence S01°11'00"W, 536.39 ft.; thence S01°38'47"W, 729.79 ft.; thence S00°06’42”W, 150.00 ft. to the point of curvature of a curve to the right having a central angle of 41°48'00" and a radius of 75.00 ft.; thence southwesterly along the arc of said curve, 54.72 ft. to the point of tangency thereof, said curve having a long chord bearing S21°00'42"W, 53.51 ft.; thence S89°06'04"E, 1758.75 ft.; thence S11°03'06"W, 36.07 ft.; thence S01°50'12"W, 379.43 ft.; thence S00°21'44"E, 387.59 ft.; thence N89°01'03"W, 610.00 ft.; thence N88°59'39"W, 1128.00 ft.; thence N01°03'16"E, 87.54 ft. to a 3/4" solid round iron rod; thence N89°55'10"W, 632.25 ft. to a 3/4" solid round iron rod; thence N00°33'46"E, 93.42 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the right having a central angle of 07°05'22" and a radius of 2,794.00 ft.; thence northerly along the arc of said curve 345.72 ft. to a 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing N04°06'27"E, 345.50 ft.; thence N07°39'08"E, 104.02 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the left having a central angle of 07°14'40" and a radius of 1,012.00 ft.; thence northerly along the arc of said curve, 127.96 ft. to a 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing N04°01'48"E, 127.87 ft.; thence N00°24'28"E, 210.33 ft. to a 3/4" solid round iron rod; thence N89°06'46"W, 1056.52 ft. to the west line of the NW1/4 of the SE1/4 of Section 3; thence N00°36’25”E along said west line, 970.26 ft. to the point of beginning.

Containing 4,085,176 square feet – 93.78 acres.


SECTION 3
T10N, R6E
CENTER 1/4 CORNER OF SECTION 3, T10N, R6E FROM CORNER TIE SHEET
N 201699.28
E 643909.02
NW-SE
THE WEST 1/4 CORNER OF SECTION 2, T10N, R6E.
N 201734.67
E 646549.92
PARCEL "X2"
1,844,325 Sq.Ft. - 42.34 acres
NE-SE
NW-SW
PARCEL "X3"
1,608,477 Sq.Ft. - 36.93 acres
PARCEL "R4"
1,216,766 Sq. Ft - 27.93 acres
PARCEL R5
47274 Sq. Ft.
1.09 Ac.
SW-SE
44010 Sq. Ft. - 1.01 Ac.
PARCEL R2
PARCEL "R"
4,085,176 Sq.Ft. - 93.78 acres
SE-SE
SW-SW
PARCEL "Y2"
HARRISON MONUMENT AT THE SOUTHWEST CORNER OF SECTION 2, T10N, R6E
N 199087.00
E 646520.80
PARCEL "R3"
204-259 = N45°45'47"W 229.24'
WEST LINE OF THE SE1/4 OF SECTION 3
447 - 448 = S89°48'53"E, 196.29'
448 - 449 = S00°21'10"W, 241.38'
449 - 446 = N89°21'01"W, 196.70'
S89°13'56"W
S89°06'46"E
N 00°36'25" E
N 00°55'51" E
N 01°11'00" E
N 88°49'23" W
N 01°38'47" E
N 00°06'42" E
N 89°06'04" W
N89°53'20"W
N0°37'48"E
N 88°59'39" W
S 89°38'00" E
S 89°55'10"E
N85°20'24"W
S 89°01'03" E
S 88°58'55" E
S 00°07'57" W
S 00°44'31" W
S 11°03'06" W
S 01°50'12" W
S 00°21'44" E
S0°24'28"W
S0°33'46"W
S7°39'08"W
N0°36'25"E
N0°30'44"E
1040.73'
903.36'
629.57'
1670.30'
322.00'
1293.49'
1320.57'
2641.14'
2645.04'
1322.52'
280.42'
1730.39'
1071.76'
2648.80'
1324.40'
975.00'
755.39'
2647.82'
1043.49'
729.79'
150.00'
1758.75'
921.57'
36.07'
1325.24'
379.43'
387.59'
1323.91'
1128.00'
992.24'
135.76'
610.00'
2023.00'
1327.96'
2640.50'
640.90'
932.46'
1517.93'
87.54'
763.32'
632.25'
131.07'
104.02'
93.42'
210.33'
970.26'
1056.52'
926.04'
130.48'
1298.40'
1306.50'
760.32'
475.01'
781.11'
1555.00'
883.72'
394.91'
14.18'
123.40'
C12
C13
C74

Verification of Zoning

G.3. The Badger Army Ammunitions Plant land was acquired by the United States for use as an ammunition plant, so under ss. 1.02(intro.) and (1), Wis. States., it is a "site for the erection of …magazines, arsenals,…" over which the United States has exclusive jurisdiction as a "federal enclave." Once Wisconsin cedes exclusive jurisdiction to the United States over a place or tract of land within the state pursuant to ss. 1.02(1) and 1.03, States., the United States retains exclusive jurisdiction" so long… as the place or tract shall remain the property of the United States." To date, Parcel R remains United States property subject to the exclusive jurisdiction of the United States.

DEPARTMENT OF THE ARMY
BADGER ARMY AMMUNITION PLANT
S7560 U.S. HIGHWAY 12
NORTH FREEDOM, WISCONSIN 53951-9588

February 9, 2015

SUBJECT: Parcel R – Legal Description Certification

Mr. Will Myers
Hydrogeologist
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711-5397

Dear Mr. Myers:

As a representative for the Responsible Party, I believe that the legal description, as provided in the Case Closure – GIS Registry (Form 4400-202) accurately describes the correct property for Parcel R.

Please do not hesitate to contact me at 608-643-3361 if you have any questions.

Sincerely,

Robert M. Sitton
Commander's Representative

Copy furn: Badger Technical Services, LLC