

**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. 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.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

<b>Site Information</b>			
BRRTS No. 03-41-545023		VPLE No.	
Parcel ID No. 2510408000			
FID No. 341124630		WTM Coordinates	
		X 682603	Y 292769
BRRTS Activity (Site) Name Capitol Auto Sales/BV's Automotive (former)		WTM Coordinates Represent: <input checked="" type="checkbox"/> Source Area <input type="checkbox"/> Parcel Center	
Site Address 7210 W Capitol Drive		City Milwaukee	State ZIP Code WI 53216
Acres Ready For Use 0.45			

Responsible Party (RP) Name Hazim Farrah			
Company Name Farrah Group, LLC			
Mailing Address 7210 W. Capitol Drive		City Milwaukee	State ZIP Code WI 53216
Phone Number (414) 438-3900		Email	
<input checked="" type="checkbox"/> Check here if the RP is the owner of the source property.			
Environmental Consultant Name Ronald Anderson			
Consulting Firm METCO			
Mailing Address 709 Gillette Street, Suite 3		City La Crosse	State ZIP Code WI 54603
Phone Number (608) 781-8879		Email rona@metcohq.com	

**Fees and Mailing of Closure Request**

- Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR Regional EPA (Environmental Program Associate) at <http://dnr.wi.gov/topic/Brownfields/Contact.html#tabx3>. Check all fees that apply:  

<input checked="" type="checkbox"/> \$1,050 Closure Fee	<input checked="" type="checkbox"/> \$300 Database Fee for Soil
<input checked="" type="checkbox"/> \$350 Database Fee for Groundwater or Monitoring Wells (Not Abandoned)	Total Amount of Payment \$ <u>\$1,700.00</u>
<input type="checkbox"/> Resubmittal, Fees Previously Paid	
- 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 portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will 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.  
The Capitol Auto Sales/BV's Automotive (former) site, 7210 W. Capitol Drive, is located at the SW 1/4 of the SW 1/4 of Section 3, Township 7 North, Range 21 East, in the city of Milwaukee, Milwaukee County, WI. The subject property is located north of W Capitol Drive, west of N 72nd Street and is bound by a commercial property to the west and an alley and residential properties to the north of the property.
- B. Prior and current site usage: Specifically describe the current and historic occupancy and types of use.  
City of Milwaukee records indicate that the building was built in 1965 and has operated as an auto repair shop and gas station from 1965 to approximately 1985. Former UST systems that have been removed from the property include three 4,000 gallon leaded gasoline UST's and one 2,000 gallon diesel UST. The site has been operating as an auto repair shop and used auto sales facility since.
- C. Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).  
According to the City of Milwaukee Zoning Map, the Capitol Auto Sales/BV's Automotive (former) site, located at 7210 W. Capitol Drive is zoned as LB1 Local Business - Commercial. The property to the west is also zoned as LB1 Local Business - Commercial.
- D. Describe how and when site contamination was discovered.  
On February 20, 2006 AXIS Consulting, LLC conducted a Limited Phase II Site Assessment, which included the completion of four soil borings. Four soil samples were submitted for laboratory analysis of GRO, PVOC, and Naphthalene analysis and showed concentrations that exceeded the NR720 RCL's. On February 28, 2006, the DNR was notified of a petroleum release on the property.
- E. Describe the type(s) and source(s) or suspected source(s) of contamination.  
Petroleum contamination appears to have originated from the former leaded gasoline and diesel UST systems that existed on the property.
- F. Other relevant site description information (or enter Not Applicable).  
Not applicable.
- G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.  
No other BRRTS activities exist at the subject property.
- H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property.  
There are currently no BRRTS cases for any immediately adjacent properties.

**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.  
Local unconsolidated material consists of clay to silty clay with trace amounts of gravel from surface to at least 23 feet below ground surface (bgs). A lense of fine grained sand was found in soil boring B-1 and was from approximately 4 to 8 feet bgs.
  - ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.  
Fill material consisting of gravel, sand, and silt mixtures was encountered from surface to approximately 3 feet bgs in the areas of the former pump islands in Geoprobe borings GP-1 and GP-2.
  - iii. Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation.  
Bedrock was not encountered during the site investigation, but Silurian-age dolomitic bedrock is estimated to exist at approximately 150-200 feet bgs.
  - 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).  
The on-site building is located along the western portion of the site property boundary. The remaining portion of the property is covered by an asphalt parking lot.
- B. Groundwater

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

According to data collected from the monitoring wells, the depth to groundwater ranges from 5.42 to 11.39 feet bgs depending on well location and time of year. Free product has not been encountered in any monitoring wells. No piezometers are installed during the site investigation. The soils at the watertable consist of clay to silty clay with gravel.

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

According to the water table measurements collected during groundwater sampling events, the local horizontal groundwater flow in the immediate area of the subject property is generally toward the north to west.

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

AXIS Consulting conducted slug tests on three monitoring wells. The slug test data was evaluated using the Hvorslev's Method based on the first 600 seconds of collected data. Hydrogeologic parameters are estimated as the following:

Monitoring Well MW-2

Hydraulic Conductivity =  $4.56 \times 10^{-6}$  cm/sec

Flow Velocity ( $V=KI/n$ ) = 1.44 m/yr

Monitoring Well MW-3

Hydraulic Conductivity =  $4.88 \times 10^{-6}$  cm/sec

Flow Velocity ( $V=KI/n$ ) = 1.54 m/yr

Monitoring Well MW-4

Hydraulic Conductivity =  $3.96 \times 10^{-6}$  cm/sec

Flow Velocity ( $V=KI/n$ ) = 1.25 m/yr

Hydraulic Conductivity data obtained by AXIS Consulting along with groundwater elevations from the four rounds of groundwater sampling was used by METCO to calculate the Flow Velocity for each well.

- iv. Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval).

The subject property and surrounding properties are served by the City of Milwaukee municipal water supply, which draws its potable water from Lake Michigan. There are no known private water supply wells in the area of the subject property.

### 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.

On February 20, 2006 as part of the Limited Phase II Site Assessment, Giles Engineering Services conducted a Geoprobe project under the direction and supervision of AXIS Consulting. During the project, four soil borings (GP-1 thru GP-4) were advanced throughout the site to 8-12 feet bgs. Four soil samples were collected for field (PID) and laboratory analysis (GRO, PVOC, and Naphthalene). (Site Investigation Report - July 14, 2006)

On April 5, 2006, Giles Engineering Services conducted a drilling project under the direction and supervision of AXIS Consulting. During the project, six soil borings (B-1 thru B-6) were completed with eleven soil samples collected for laboratory analysis (Lead, DRO, GRO, and VOC). During the project, four soil borings were converted into monitoring wells (MW-1 thru MW-4). Following the drilling project, monitoring wells MW-2 and MW-3 were properly developed. Monitoring wells MW-1 and MW-4 were not developed as they were dry. (Site Investigation Report - July 14, 2006)

On April 11, 2006, AXIS Consulting collected groundwater samples from two site monitoring wells (MW-2 and MW-3) for laboratory analysis (GRO, DRO, VOC's, Iron, and Lead). Monitoring wells MW-1 and MW-4 were not sampled at this time as they were dry. (Site Investigation Report - July 14, 2006)

On April 24, 2006, AXIS Consulting collected groundwater samples from two site monitoring wells (MW-1 and MW-4) for laboratory analysis (VOC's, Iron, Sulfate, Nitrate, Magnesium, and Lead). (Site Investigation Report - July 14, 2006)

On January 2, 2007, AXIS Consulting collected groundwater samples from four site monitoring wells (MW-1 thru MW-4) for laboratory analysis (PVOC). Water level measurements were taken from all sampled wells. (Status Update - August 5, 2007)

On March 20, 2007, AXIS Consulting collected groundwater samples from four site monitoring wells (MW-1 thru MW-4) for laboratory analysis (PVOC). Water level measurements were taken from all sampled wells. (Status Update - August 5, 2007)

On July 13, 2017, METCO personnel collected groundwater samples from four monitoring wells (MW-1 thru MW-4) for laboratory analysis (PVOC and Naphthalene). Field measurements for water level, Dissolved Oxygen, pH, ORP, temperature, and Specific Conductivity were collected from all sampled monitoring wells. (Groundwater Monitoring Report - August 18, 2017)

- ii. Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts.  
Petroleum contamination in soil and groundwater does not extend beyond the property boundary.
- 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.

No structural impediments interfered with the completion of the site investigation.

#### B. Soil

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

An area of unsaturated soil contamination exceeding the NR720 Groundwater RCL's values, exists in the area of the northern former pump island. This area appears to measure up to 25 feet long, 18 feet wide, and up to 8 feet thick.

An area of unsaturated soil contamination exceeding the NR720 Direct Contact RCL's exists in the area of the northern former pump island. This area appears to measure up to 18 feet long, up to 8 feet wide and up to 4 feet thick.

- ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column.  
Remaining soil samples collected within the upper four feet of the soil column exceeding the NR720 RCL's include:

GP-2 (0-4 feet): Benzene (3.1 ppm), Ethylbenzene (11 ppm), Naphthalene (2.8 ppm), Toluene (15 ppm), Trimethylbenzenes (28.3 ppm), and Xylene (61 ppm).

GP-3 (0-4 feet): Benzene (1.8 ppm), Naphthalene (1.4 ppm), Trimethylbenzenes (3.23 ppm), and Xylene (4.6 ppm).

- 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.

The method used to establish the soil cleanup standards for this site were the NR720 RCL's. The property is zoned LB1- Local Business, therefore non-industrial standards were used for this site.

#### C. Groundwater

- i. Describe degree and extent of groundwater contamination. 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.

A dissolved phase contaminant plume exceeding the NR140 ES and/or PAL has formed at the water table in the area of the northern former pump island and has migrated slightly to the northwest. This plume is approximately 34 feet long and 27 feet wide.

There are no municipal or private water supply wells within 1,200 feet of the subject property.

No building foundation drain systems are known to exist in the area of groundwater contamination.

- ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.

Free Product has not been encountered in any of the monitoring wells.

#### D. Vapor

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

The extent of petroleum contamination in soil and groundwater does not appear to extend underneath any buildings. Therefore, there does not appear to be any vapor intrusion risks to nearby buildings.

- 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).

No indoor air/sub slab vapor samples were collected.

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.

The nearest surface water is the Dineen Park Pond, which exists approximately 2,500 feet to the southeast of the former UST systems. It does not appear that the petroleum contamination has impacted any surface waters.

- 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.

No surface water or sediment samples were collected.

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.

No remedial actions were conducted.

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

No immediate or interim actions occurred at this site.

- C. Describe the *active* remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; 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.

No remedial actions were conducted.

- D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.

No evaluation of the Green and Sustainable Remediation was conducted.

- E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.

An area of unsaturated soil contamination exceeding the NR720 Groundwater RCL's values, exists in the area of the northern former pump island. This area appears to measure up to 25 feet long, 18 feet wide, and up to 8 feet thick.

An area of unsaturated soil contamination exceeding the NR720 Direct Contact RCL's exists in the area of the northern former pump island. This area appears to measure up to 18 feet long, up to 8 feet wide and up to 4 feet thick.

- F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact.

Soil contamination within the upper four feet of the soil column exceeded the NR720 Non-Industrial Direct Contact RCLs remain at the site at the following location:

GP-2 (0-4 feet): Benzene and Ethylbenzene.

GP-3 (0-4 feet): Benzene.

- G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

Unsaturated soil samples exceeding the NR720 Groundwater RCLs remain at the site and includes the following:

GP-2 (0-4 feet): Benzene, Ethylbenzene, Naphthalene, Toluene, Trimethylbenzenes, and Xylene.

GP-2 (4-8 feet): Benzene, Naphthalene, and Trimethylbenzenes.

GP-3 (0-4 feet): Benzene, Naphthalene, Trimethylbenzenes, and Xylene.

B-1 (4-8 feet): Benzene, Ethylbenzene, Naphthalene, Toluene, Trimethylbenzenes, and Xylene.

- H. 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.

Any remaining exposure pathways will be addressed via a Cap Maintenance Plan and natural attenuation.

- I. 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).  
Groundwater contaminant levels appear to be stable to decreasing. Based on this, natural attenuation appears to be an effective method in reducing contaminant mass and concentration.
- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).  
Any remaining exposure pathways will be addressed via a Cap Maintenance Plan and natural attenuation.
- K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.  
No system hardware is anticipated to be left in place after site closure.
- L. 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.  
From the July 13, 2017 groundwater sampling event:  
Monitoring Well MW-1: Currently shows an NR140 ES exceedance for Benzene (10.1 ppb).
- M. 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.  
No indoor air/sub slab vapor samples were collected.
- N. 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.  
No surface water or sediment samples were collected.

**5. Continuing Obligations: Situations where sites, including all affected properties and rights-of-way (ROWs), are included on the DNR's GIS Registry. In certain situations, maintenance plans are also required, and must be included in Attachment D.**

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation Inclusion on the GIS Registry is Required (ii. - xiv.)	Maintenance Plan Required	
Property Type:					
Source Property	Affected Property (Off-Source)	ROW			
i.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None of the following situations apply to this case closure request.	NA
ii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual groundwater contamination exceeds ch. NR 140 ESs.	NA
iii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.				Monitoring Wells Remain:	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Not Abandoned (filled and sealed)	NA
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Continued Monitoring (requested or required)	Yes
v.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Commercial/Industrial exposure assumptions used.	NA
xiii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site-specific situation: (e. g., fencing, methane monitoring, other) ( <i>discuss with project manager before submitting the closure request</i> )	Site specific

**6. 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. ATP 93, Wis. Adm. Code, exist on the property? ☐ Yes ☒ No
- C. If the answer to question 6.B. is yes, is the leak detection system currently being monitored? ☐ Yes ☐ No

## General Instructions

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

## Data Tables (Attachment A)

### Directions for Data Tables:

- Use **bold** and italics font for information of importance on tables and figures. Use **bold** font for ch. NR 140, Wis. Adm. Code ES attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use **bold** font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- 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. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

### A. Data Tables

- 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, potable wells) for which samples have been collected.
- Soil Analytical Results Table(s):** Table(s) showing all soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).
- Residual Soil Contamination Table(s):** Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.
- Vapor Analytical Table(s):** 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.
- 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, and time period for sample collection.
- 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.
- 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, Figures and Photos (Attachment B)

### Directions for Maps, Figures and Photos:

- 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 11 x 17 inches, in a 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.
- 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.
- Maps, figures and photos should be dated to reflect the most recent revision.

#### B.1. Location Maps

- B.1.a. Location Map:** A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected 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 all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contamination 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 attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.
- B.1.c. RR Sites Map:** From RR Sites Map ([http://dnrmaps.wi.gov/si/?Viewer=RR Sites](http://dnrmaps.wi.gov/si/?Viewer=RR%20Sites)) attach a map depicting the source property, and all open and closed BRRS sites within a half-mile radius or less of the property.



**B.2. Soil Figures**

- B.2.a. **Soil Contamination:** Figure(s) showing the location of all identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).
- B.2.b. **Residual Soil Contamination:** Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedance (0-4 foot depth).

**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 an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 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.1.b.)
- 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, PAL and/or an 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 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 residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, 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).

- B.5. **Structural Impediment Photos:** One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

**Documentation of Remedial Action (Attachment C)****Directions for Documentation of Remedial Action:**

- 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 has already been submitted to the DNR, please note the title and date of the report for that particular document requested.
  - C.1. **Site investigation documentation**, that has not otherwise been submitted with the Site Investigation Report.
  - C.2. **Investigative waste** disposal documentation.
  - C.3. Provide a **description of the methodology** used along with all supporting documentation if the RCLs 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.
  - C.6. **Other.** Include any other relevant documentation not otherwise noted above (This section may remain blank).

**Maintenance Plan(s) and Photographs (Attachment D)****Directions for Maintenance Plans and Photographs:**

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: <http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3>

- D.1. **Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:**

- Provide brief descriptions of the type, depth and location of residual contamination.

- Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
  - Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
  - Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- D.2. **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) all property boundaries.
- D.3. **Photographs** 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. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.
- D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: <http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf>.

#### Monitoring Well Information (Attachment E)

##### Directions for Monitoring Well Information:

For all wells that will remain in use, be transferred to another party, or that could not be located; 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](http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf))

##### Select One:

- ☐ No monitoring wells were installed 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 a description of efforts made to locate the wells.
  - ☐ 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. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.
  - ☐ One or more monitoring 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). Provide documentation from the party accepting future responsibility for monitoring well(s).

#### Source Legal Documents (Attachment F)

##### Directions for Source Legal Documents:

Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

- F.1. **Deed:** The most recent deed with legal description clearly listed.

*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.*

- F.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. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- F.3. **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- F.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. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.

**Notifications to Owners of Affected Properties (Attachment G)****Directions for Notifications to Owners of Affected Properties:**

Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. 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.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements <http://dnr.wi.gov/files/PDF/pubs/rr/RR606.pdf>.

State law requires that the responsible party provide a 30-day, written advance notification 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 form 4400-286, Notification of Continuing Obligations and Residual Contamination, at <http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf>

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation. (These items will not be placed on the GIS Registry.)

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- **Deed:** The most recent deed with legal descriptions clearly listed for all affected properties.  
*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.*
- **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. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

## Notifications to Owners of Affected Properties (Attachment G)

[illegible]

**Signatures and Findings for Closure Determination**

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 \_\_\_\_\_ 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."

\_\_\_\_\_  
Printed Name\_\_\_\_\_  
Title\_\_\_\_\_  
Signature\_\_\_\_\_  
Date\_\_\_\_\_  
P.E. Stamp and Number**Hydrogeologist Certification**

I Ronald J. Anderson 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."

\_\_\_\_\_  
Ronald J. Anderson\_\_\_\_\_  
Senior Hydrogeologist/Project Manager\_\_\_\_\_  
Printed Name\_\_\_\_\_  
Title\_\_\_\_\_  
Signature  
Date