

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

Case Closure

Form 4400-202 (R 10/22)

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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 Public 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.

Site Information

BRRTS No. 02-41-583465	VPLE No.		
Parcel ID No. 43-39-927111			
FID No. 241878450	WTM Coordinates		
	X 688,169.1	Y 285,505.8	
BRRTS Activity (Site) Name Cristo Rey Jesuit High School -Historic Fill	WTM Coordinates Represent: <input type="checkbox"/> Source Area <input checked="" type="checkbox"/> Parcel Center		
Site Address 1818 W National Avenue	City Milwaukee	State WI	ZIP Code 53204
Acres Ready For Use 7.58			

Responsible Party (RP) Name

Andrew Stith

Company Name

Cristo Rey Milwaukee NMTC SP

Mailing Address 1818 W National Avenue	City Milwaukee	State WI	ZIP Code 53204
Phone Number	Email astith@crestoremilwaukee.org		

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

Environmental Consultant Name

James Bannantine

Consulting Firm

Kapur, Inc

Mailing Address 400 E. Wisconsin Avenue	City Milwaukee	State WI	ZIP Code 53202
Phone Number	Email jbannantine@kapurinc.com		

Fees and Mailing of Closure Request

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 EPA (Environmental Program Associate) at <http://dnr.wi.gov/topic/Brownfields/Contact.html#tabx3>. Please see RR-997 Implementation of Wis. Admin. Code chs. NR 749 and NR 750 Fees (<https://dnr.wi.gov/DocLink/RR/RR997.pdf>) for additional information on what fees apply. Check all fees that apply:

☒ \$1,050 Closure Fee

☒ \$300 Database Fee for Soil, performance standard such as a cover, Structural impediment, or Industrial Soil Standard

☐ \$350 Database Fee for Groundwater, Monitoring Wells (Not Abandoned), Vapor (7A-7E), Sediment, or Site-Specific Continuing Obligations (NR 749 Table 1 (d) 1, 3 and 4)

Total Amount of Payment \$ \$1,350.00

☐ Resubmittal, Fees Previously Paid

2. **Submit a complete electronic copy of the entire closure package via the RR Submittal Portal**

(<https://dnr.wisconsin.gov/topic/Brownfields/Submittal.html>) to the Regional Project Manager assigned to your site. Any subsequent revisions should also be sent via the RR Submittal Portal. For additional submittal instructions, please review RR-960 Guidance for Submitting Documents (<https://dnr.wi.gov/DocLink/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 site is located at 1818 West National Avenue, city of Milwaukee, Milwaukee County, Wisconsin. The site is located in a mixed use area with residential, commercial, and industrial parcels in the vicinity.
- B. Prior and current site usage: Specifically describe the current and historic occupancy and types of use.
The subject property originally consisted of several residential properties prior to 1937, which were changed to commercial properties from circa 1937 through 2000. In 2019, the building at the property was demolished. The site is currently a school building, parking lot, and artificial turf field.
- C. Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
The subject property is zoned as special - Institutional. The neighboring adjoining properties are zoned as industrial, commercial, residential, and special - planned development.
- D. Describe how and when site contamination was discovered.
Fill soils were identified during geotechnical borings completed by Giles Engineering Associates (Giles) in September 2018. The fill soils were determined to be impacted with polycyclic aromatic hydrocarbons (PAHs) and resource conservation and recovery act (RCRA) metals.
- E. Describe the type(s) and source(s) or suspected source(s) of contamination.
The suspected source of contamination is fill soils covering the majority of the site.
- F. Other relevant site description information (or enter Not Applicable).
Volatile organic compounds (VOCs) detected in soils during the site investigation, but were believed to likely be associated with one or more of the closed LUST sites at the property. On March 10, 2023, the WDNR issued a response letter titled "Review of Site Investigation and Remedial Action Report", which recognized the VOC contamination associated with one or more of the closed LUST sites. Therefore, the identified VOCs are considered residual contamination from the closed LUST sites, and is not associated with the fill material. The residual VOC contamination was closed with the associated LUST cases. This closure package addresses contaminants that likely originated from shallow fill materials. Since VOCs were not detected in any of the shallow fill materials, and the final project remediation is protective of residual contamination from the LUST cases. VOCs are not further addressed in this closure package except for documentation purposes.
- G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.
BRRTS Name, BRRTS #, Type of Case, Open/Closed

Cristo Rey Jesuit High School - Historic Fill, 02-41-583465, ERP, Open

Mrs Karls (Interstate Brands Corp), 03-41-000547, LUST, Closed

NDC Inc. Mega Marts, 03-41-099673, LUST, Closed

Wenninger Co, 03-41-001060, LUST, Closed

Value Village, 03-41-001317, LUST, Closed

NDC Inc/Mega Marts, 03-41-101491, LUST, Closed

NDC Inc Mega Marts, 04-41-169255, SPILL, Closed

- H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property.
BRRTS Name, BRRTS #, Type of Case, Open/Closed, Direction from Subject Property

Clarke Square Terrace, 02-41-551585, ERP, Closed, North

Wenninger Mechanical Contractors, 03-41-004790, LUST, Closed, East

Pemper Engineering, 03-41-537698, LUST, Closed, East

M & T Gas Station, 03-41-001454, LUST, Closed, South

Crivello Const, 03-41-000423, LUST, Closed, Southwest

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.

The subsurface conditions consist of fill soils containing anthropogenic materials ranging in depths from approximately 0 to 11.5 ft bgs. Fill materials were noted at 16 of 23 boring locations, many contained anthropogenic materials including: cinders, asphalt rubble, brick fragments, concrete fragments, foundry materials, organic matter, and glass fragments. In the absence of anthropogenic materials, fill soils were determined by the field staff or driller. Fill material without anthropogenic materials often appeared to be native soils from the area that had been previously excavated or reworked.

The fill material was underlain by native soils to the end of boring, ranging from depths of 11 feet – 26 feet bgs. The native materials consisted of sand, silty sand, sandy silt, clay, silty clay, silty sand & gravel.

- ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
Based on the site investigation results and previous subsurface findings, it is assumed that the lateral extent of fill materials generally encompasses the entire property and ranges from depths of 0 to 11.5 ft bgs. Based on field observations from soil borings, the fill material is composed of mixtures of sand, silt, clay and gravel with some brick fragments, cinders, asphalt rubble, concrete fragments, foundry materials, organic matter, and glass fragments.
- 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 or remediation activities, but likely consists of Silurian age dolomite at depths of 50 feet below ground surface (ft bgs) or greater (M. G. Mudrey, Jr, et al, 1982).
- 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 Site is a 7.59-acre parcel currently developed with a school building, drive and parking areas, limited landscaping, and artificial turf athletic field.

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.

The groundwater table was not encountered during the environmental investigation. Free water was encountered in five of the 23 geotechnical borings at depths ranging from 3 to 9.5 ft bgs. A review of historical BRRTS cases in the area indicates that the depth to shallow groundwater typically ranged from approximately 9 to 11 ft bgs. The wide range of elevations detected during the geotechnical investigation and the absence of free water in the majority of the borings suggest that the water encountered in the geotechnical borings was perched within the fill materials above finer-grained units. The perched water zones do not appear to be laterally extensive or connected.

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

A review of historical BRRTS cases in the area suggest that shallow groundwater is expected to reside at depths of approximately 11 ft bgs, and is expected to flow generally east toward Lake Michigan.

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

Groundwater flow characteristics were not evaluated for this site, because groundwater was not encountered during site investigation activities.

- 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).
According to the WDNR online well records database, one well was determined to be located within 0.2 miles from the subject site. This well was drilled to serve Milwaukee Metropolitan Sewerage District (MMSD) and is cased to 61 ft bgs. The Wisconsin unique well number of the well is AR664.

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 Report was submitted to the WDNR in February 2023. No site investigation activities were completed after that report.

Twenty-three (23) geotechnical soil borings were advanced by Giles at the subject property in September 2018 to support redevelopment of multiple parcels into a single property for Cristo Rey Jesuit High School. Kapur collected a total of 15 soil samples from the geotechnical borings for laboratory analysis of PAHs, RCRA Metals, and VOCs. PAHs, VOCs, arsenic and lead were detected in one of more soil samples exceeding their respective WDNR NR 720 residual contaminant levels (RCLs) for direct contact and/or groundwater protection. The source of impact was determined to be fill soils, and a release was reported to the WDNR. The WDNR issued a release notification in April 2019 and opened BRRS case #02-41-583465.

On December 5, 2018, Kapur directed the installation of five (5) direct push soil borings (GP-13 - GP-17) by Baake Field Services LLC (Baake) of Milwaukee, Wisconsin. The direct push borings were advanced to depths of 5-10 ft bgs, and each direct push boring was positioned near geotechnical boring locations where soil samples were not previously collected. Seven (7) soil samples were collected and submitted for laboratory analysis of PAHs, RCRA metals, and VOCs.

- 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.
Shallow fill soils have been identified across the Subject Property and are considered to be the source of soil contamination. There is no data that indicates the fill materials extend offsite, so the potential for contaminant impacts to extend off site is low.
- 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.

There were no structural impediments that prevented completion of site investigation or remediation activities.

B. Soil

- i. Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.
Contaminated fill soils generally occur laterally across the subject property. Soil contamination appears to be restricted vertically to the shallow fill soils, particularly those fill soils containing anthropogenic materials. The impacted fill materials were present throughout the subject property boundaries at depths from 0 to 11.5 ft bgs. Groundwater was not encountered during the site investigation and is unlikely to be impacted by the contaminated shallow fill soils.
- ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column.
Soil impacts consist of PAHs and RCRA metals. The following PAHs and RCRA metals were identified in one or more samples within the upper 4 feet at concentrations exceeding the WDNR NR 720 non-industrial direct contact RCL: benzo(a)pyrene, lead, and arsenic. The following PAHs and RCRA metals were identified in one or more samples within the upper 4 feet at concentrations exceeding the WDNR NR 720 non-industrial direct contact RCL: benzo(a)anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and cadmium. The following PAHs and RCRA metals were identified in one or more samples at concentrations exceeding the WDNR NR 720 groundwater pathway RCLs: benzo(a)pyrene, benzo(b)fluoranthene, chrysene, naphthalene, arsenic, barium, cadmium, lead, mercury, selenium, and silver.
- 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 WDNR NR 720 Residual Contaminant Levels were used as the referenced clean up standards 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.

The depth to water was encountered at depths ranging from approximately 3 to 9.5 ft bgs during the geotechnical exploration, and free water was not encountered within any of the direct push borings (advanced to depths of 5 to 10 ft bgs). The scattered presence of free water at varying depths appears to be generally related to fill thickness and the presence of underlying clay materials, suggesting that the free water encountered during drilling was perched water, and not indicative of a shallow groundwater table. Previous BRRTS cases at the subject property suggest that the depth to groundwater is generally 9 - 11 ft bgs generally.

The contaminated soils appear to be restricted to the fill materials. In each soil boring location where a shallow and deep soil sample was collected (B-12, B-18, B-21, B-23, GP-14 and GP-16), the contaminant concentrations are lower in the deeper sample than in the shallow sample. This indicates that there has historically been very little leaching of contaminants from shallow soils, and further indicates that the potential for leaching of contaminants from shallow fill soils to groundwater is low.

- 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 was not encountered at the site. Given the nature, type, and location of contaminants, the potential for free product at this site is minimal.

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 primary contaminants of concern identified in the shallow fill materials were PAHs and RCRA metals. Because these compounds are generally not volatile, vapor migration or vapor intrusion risk was considered minimal and was not further assessed.

- 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).

The primary contaminants of concern identified in the shallow fill materials were PAHs and RCRA metals. Because these compounds are generally not volatile, vapor migration or vapor intrusion risk was considered minimal and was not further assessed.

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.

Surface water and sediment were not assessed as part of this investigation as neither were present onsite nor located adjacent to the subject property.

- 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, see section 3.E.i.

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 subject property historically consisted of several individual parcels. Associated with these historic parcels are six (6) closed WDNR BRRTS cases. Table A.7 summarizes the remedial activities associated with each of these cases.

Fill soils were discovered during geotechnical borings for redevelopment purposes, and on April 19, 2019, WDNR case 02-41-583465 was opened at the subject property when PAH and RCRA metals impacted shallow fill soils were identified.

A Soil Management Plan was submitted to the WDNR on March 4, 2019 and was approved. This report was developed for the construction activities so that impacted fill soils were managed properly. A Site Investigation and Remedial Action Report was submitted to the WDNR on February 21, 2023, and summarizes remedial activities associated with the property redevelopment.

In accordance with the Soil Management Plan, residually impacted soils identified during previous investigation activities with contaminant concentrations exceeding WDNR NR 720 nonindustrial direct contact RCLs were relocated beneath the school building footprint during construction activities. The top 2 – 3.5 ft of impacted soil in identified impacted areas was excavated and used for the foundation of the western portion of the high school building. Approximately 2 – 2.5 ft of clean imported fill was placed over the impacted fill in the school building.

From June 2019 through June 2020 Kapur periodically monitored soil excavation and relocation activities during the high school construction project. A total of 818.10 tons of impacted fill material surrounding soil boring B-21 (which the only investigation location where impacted fill soils contained contaminants that exceeded WDNR NR 720 industrial direct contact pathway RCLs) was excavated and transported offsite for disposal at Waste management – Orchard Ridge licensed landfill facility.

A cover maintenance plan was developed to ensure the subject property cover materials remain protective of human health, by preventing direct contact with residually impacted soils, and limiting surface water infiltration and leaching of contaminants to the shallow groundwater (attachment D). Because of the heterogeneous nature of fill materials, the potential exists for elevated contaminant concentrations to exist at any location; therefore, the cover materials across the entire subject property require ongoing maintenance.

- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.
No immediate or interim actions have been completed 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.

A Soil Management Plan was submitted to the WDNR on March 4, 2019 and was approved. This report was developed for the construction activities so that impacted fill soils were managed properly. In accordance with the Soil Management Plan, residually impacted soils identified during previous investigation activities with contaminant concentrations exceeding WDNR NR 720 nonindustrial direct contact RCLs were relocated beneath the school building footprint during construction activities. The top 2 – 3.5 ft of impacted soil in identified impacted areas was excavated and used for the foundation of the western portion of the high school building. Approximately 2 – 2.5 ft of clean imported fill was placed over the impacted fill in the school building.

From June 2019 through June 2020 Kapur periodically monitored soil excavation and relocation activities during the high school construction project. A total of 818.10 tons of impacted fill material surrounding soil boring B-21 (which the only investigation location where impacted fill soils contained contaminants that exceeded WDNR NR 720 industrial direct contact pathway RCLs) was excavated and transported offsite for disposal at Waste management – Orchard Ridge licensed landfill facility. The location of soils removed for off-site disposal and was excavated to an approximate depth of 4 - 5 feet bgs.

A cover maintenance plan was developed to ensure the subject property cover materials are maintained to remain protective of human health, by preventing direct contact with residually impacted soils, and limiting surface water infiltration and leaching of contaminants to the shallow groundwater. Because of the heterogeneous nature of fill materials, the potential exists for elevated contaminant concentrations to exist at any location; therefore, the cover materials across the entire subject property require ongoing maintenance

- 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.

During development of the Subject Property, soils were reused on-site to the extent practical.

- 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.

The source of impact is believed to be shallow fill soils at the Subject Property. The impacted fill materials have been identified at depths ranging from approximately 0-11.5 ft bgs and contain PAH and RCRA metals concentrations exceeding the WDNR NR 720 direct contact RCLs and groundwater protection RCLs. Despite relocation of impacted soils beneath the building, it is assumed that soil contamination exceedances may be encountered at any portion of the site where fill exists.

- 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.

The impacted fill materials have been identified at depths ranging from approximately 0-11.5 ft bgs across the entire property and contain PAH and RCRA metals concentrations exceeding the WDNR NR 720 direct contact RCLs and groundwater protection RCLs.

- 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.

The following compounds were detected in one or more soil samples at concentrations exceeding the WDNR 720 groundwater protection RCL: benzo(a)pyrene, benzo(b)fluoranthene, chrysene, naphthalene, arsenic, barium, cadmium, lead, mercury, selenium, and silver.

The contaminated soils appear to be generally restricted to the fill materials. In each soil boring location where a shallow and deep soil sample was collected (B-12, B-18, B-21, B-23, GP-14 and GP-16), the contaminant concentrations are lower in the deeper sample than in the shallow sample. This indicates that there has historically been very little leaching of contaminants from shallow soils downward, and further indicates that the potential for leaching of contaminants from shallow fill soils to groundwater is low.

- 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.

Due to the assumption that soil contamination may be encountered at any point on the subject property, the whole property was capped. The redevelopment of the property included a school building, drive and parking areas, limited landscaping, and artificial turf athletic field. All of these features constitute a barrier to minimize direct contact with fill soils and limit infiltration of surface water through contaminated fill soils.

- 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 was not encountered at this site, and is not likely to be impacted. Therefore, no groundwater remediation measures were considered.

- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

Soil exposure pathways were addressed by the excavation & off-site disposal of impacted soils, moving less-impacted soils beneath buildings, and using engineered covers to limit contact. There is no need to address groundwater exposure pathways as the site investigation indicates that groundwater has not been impacted. The primary contaminants of concern are PAHS and RCRA metals, which are not volatile, so the vapor migration pathway was not evaluated for the Subject Property.

Exposure pathways were removed/addressed via remedial excavation of impacted soils, groundwater was not encountered during excavation/investigation activities. The soil pathway (direct contact) will be mitigated using the existing cover materials as described above in 4.H.

- K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.

No monitoring wells or remedial system hardware has been installed at the subject site, therefore, no system hardware will remain after project 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.

No ch. NR 140, Wis. Adm. Code PAL or ES are believed to exist at the subject property, so no PAL or ES exemptions are needed.

- 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.

Because the contaminants of concern (PAHs and RCRA metals) are not considered volatile, vapor intrusion was not considered to be a significant risk for the subject property.

- 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 bodies exist at the subject site. Therefore, surface water and sediment did not require assessment or remediation.

5. Continuing Obligations: Includes all affected properties and rights-of-way (ROWs). 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 (database fees will apply, 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 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. ATCP 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

- 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, potable wells) for which samples have been collected.
- A.2. **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).
- A.3. **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.
- A.4. **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.
- A.5. **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.
- A.6. **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.7. **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 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 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 (<https://dnrmaps.wi.gov/H5/?viewer=rrsites>) 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. **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.

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: <https://dnr.wisconsin.gov/topic/Brownfields/Professionals.html#tabx2>.
 - 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)

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 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).
 - ☐ 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.

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 Public 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 <https://dnr.wi.gov/DocLink/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.

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

This page has been updated as of February 2019 to comply with the requirements of Wis. Admin. Code ch. NR 712.

Check the correct box for this case closure request and complete the corresponding certification statement(s) listed below to demonstrate that the requirements of Wis. Admin. Code ch. NR 712 have been met. The responsibility for signing the certification may not be delegated per Wis. Admin. Code § NR 712.09 (1). Per Wis. Admin. Code § 712.05 (1), the work must be conducted or

- ☐ The investigation and/or response action(s) for this site evaluated and/or addressed groundwater (including natural attenuation remedies). Both a professional engineer and a hydrogeologist must sign this document per Wis. Admin. Code ch. NR 712.
- ☒ The investigation and the response action(s) for this site did not evaluate or address groundwater. A professional engineer must sign this document per Wis. Admin. Code ch. NR 712.

Engineering Certification

Jeremy Schwartz, 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 document has been prepared 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 document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Signature

[Handwritten Signature]

P. E. #

E-40478

Title

Project Engineer

P.E. Stamp



Hydrogeologist Certification

I, _____, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Signature

Title

Date
