From:	Gross, Stu
To:	Graham, Joseph R - DNR
Cc:	Cull, Whitney; Lennie, Brian; Christian Zuidmulder; Morberg, Kyle
Subject:	RE: Workplan for Additional Arsenic Remediation/Sampling - C. Reiss Dock Property, Superior; BRRTS # 02-16-589248
Date:	Wednesday, May 01, 2024 4:40:00 PM

Good afternoon Joe-
Thank you for the prompt response. It is greatly appreciated.

Planned soil removal activities are tentatively set to occur early next week. Well installation activities would likely occur the following week. To clarify the proposed workplan and to be consistent with point 1 below, contaminated soils in the area of STN20 will be placed within MMU1. We also acknowledge points 2 through 4 outlined below.

Stu Gross PG
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Stantec
12080 Corporate Parkway Suite 200
Mequon WI 53092-2649 US

From: Graham, Joseph R - DNR <Joseph.Graham@wisconsin.gov>
Sent: Wednesday, May 1, 2024 1:31 PM
To: Gross, Stu <Stu.Gross@stantec.com>
Cc: Cull, Whitney <Whitney.Cull@stantec.com>; Lennie, Brian <Brian.Lennie@stantec.com>; Christian Zuidmulder <christian.z@thecreiss.com>; Morberg, Kyle <kyle.morberg@stantec.com>; Graham, Joseph R - DNR <Joseph.Graham@wisconsin.gov>
Subject: RE: Workplan for Additional Arsenic Remediation/Sampling - C. Reiss Dock Property, Superior; BRRTS # 02-16-589248

Hello Stu,

Thank you for the update. What you have written below reads like a good plan, though I suggest the following changes to keep your client on a path for eventual site closure.

1. MMU 1 is a disposal berm for the on-site management of contaminated soil and sediment. It is not clear how soil excavated from underneath the concrete panels in the impacted arsenic

area can be beneficially reused as part of MMU 1, especially without analytical test results. DNR has approved the placement and management of that material in MMU 1.

2. The elevation of side wall samples should be identified and correlated to the findings at STN 20/MW20.

3. Samples of soil and saturated materials should be collected and analyzed for arsenic when installing the well on the riverbank rather than blind drilling.

4. Groundwater at the new monitoring wells should be sampled quarterly for arsenic as described in our April 3, 2024 letter.

Let me know if you need anything else.

Sincerely,

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Joe Graham
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From: Gross, Stu <Stu.Gross@stantec.com>
Sent: Tuesday, April 30, 2024 4:29 PM
To: Graham, Joseph R - DNR <Joseph.Graham@wisconsin.gov>
Cc: Cull, Whitney <Whitney.Cull@stantec.com>; Lennie, Brian <Brian.Lennie@stantec.com>; Christian Zuidmulder <christian.z@thecreiss.com>; Morberg, Kyle <kyle.morberg@stantec.com>
Subject: RE: Workplan for Additional Arsenic Remediation/Sampling - C. Reiss Dock Property, Superior; BRRTS # 02-16-589248

Good afternoon Joe,

On January 29, 2024, Stantec Consulting Services Inc. (Stantec) submitted a *Supplemental Site Investigation Report* to the Wisconsin Department of Natural Resources (WDNR) documenting supplemental site investigation activities performed in 2023 to define/assess the extent of arsenic contamination in soil and groundwater at the C. Reiss Coal Company, LLC (C. Reiss) Dock property in Superior, Wisconsin (the Property). On April 3, 2024, WDNR responded via letter that the site investigation is incomplete, and that additional investigation is needed to define the degree and extent of elevated arsenic impacts in the area of sample location STN20/MW20 on the north end of the Property (WDNR, 2024). On April 11, 2024, Stantec, C. Reiss and WDNR discussed the status of STN20/MW20 and possible approach(es) to address associated arsenic impacts to soil and groundwater. Elevated

arsenic concentrations at STN20/MW20 are inconsistent with those reported throughout the remainder of the Property, and removal via excavation would not only represent an immediate improvement to soil quality for the Property, but likely groundwater was well.

In consideration of the above, Stantec is providing this workplan to remediate arsenic impacts to soil and groundwater on the north end of the Property.

WORKPLAN

The following tasks would be completed as part of this workplan:

Remedial Excavation

Remedial efforts will include the removal of previously placed clean fill to elevate the rail grade and concrete panels within the area of STN20/MW20, followed by soil excavation in a 10-foot by 10-foot area centered on the location of STN20/MW20. It is anticipated that recently placed clean fill material above the concrete panels would be salvaged and repurposed for backfill. The depth of excavation would be approximately 4-feet below the concrete panel grade (fbg). Additional soil from a 30-foot by 30-foot area surrounding STN20/MW20 would also be removed to a depth equivalent to the soil/groundwater interface (approximately 2.5-3 fbg). All excavated soil below the concrete panel grade are proposed to be beneficially reused on-site as part of the material management soil berm (MMU 1). In total, it is anticipated that approximately 100-150 cubic yards (CY) will be excavated and placed in MMU 1 and that a total area of approximately 1,000 square feet will be disturbed. New geotextile material would also be required in a portion of the excavation to support the future rail line. Care will be taken to dewater excavated material prior to transport across the Property. Stantec would be present during active soil removal activities to document the work.

Following excavation, one soil sample will be collected from each excavation sidewall to document remaining arsenic concentrations prior to backfilling. The sample analysis would be expedited using a 3-day turnaround. The results would be input into a statistical analysis of arsenic across the site to determine if a site-wide average arsenic concentration at or near the background threshold value of 8.3 parts per million is achieved. If reported arsenic concentrations do not support the site-wide statistical approach, additional soil excavation in the direction of elevated sample concentration(s) may be needed. Following receipt of analytical results that support a site-wide statistical analysis for arsenic consistent with background threshold values, the excavation would be backfilled using clean fill material and compacted per project specifications.

Monitoring Well Installation and Sampling

Following backfilling activities, two monitoring wells will be installed; one at the former location of STN20/MW20, and a second well directly north of this location near the bank of the St. Louis River. The wells will be blind drilled and constructed of 2-inch PVC to an approximate depth of 8 fbg and screened to intersect the water table. Following installation, the wells will be developed and sampled for dissolved arsenic. Development and purge water will be containerized for potential off-site disposal (if needed, pending analytical results).

Remedial Documentation Report

Following completion of planned activities, a report will be prepared and submitted to WDNR to document the results of remedial activities and soil/groundwater sampling. The report will include a summary of activities, analytical data, and a discussion of the statistical analysis to support site-wide average arsenic concentrations at or near the background threshold value of 8.3 parts per million.

PROBABLE SCHEDULE

Stantec anticipates that remedial excavation work will occur the week of 5/6/2024, with well installation and groundwater sampling to occur the following week (week of 5/15/2024).

Please note: the workplan described herein is intended to address the elevated arsenic on the north end of the Property, as this is a time-sensitive component for development at the site. Other items requested for completion of the site investigation referenced in the WDNR (2024) letter will be addressed as part of a future submittal(s).

Thank you,

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