Stantec

SITE INVESTIGATION REPORT
C. Reiss Coal Dock Property
Superior, Wisconsin

WDNR BRRTS Number:
02-16-589248 C Reiss Coal Dock Property
(Open ERP)

July 8, 2022

Prepared for:
C. Reiss Coal Company, LLC

111 West Mason Street

Green Bay, Wisconsin 54303

Project Number:
193707141

SITE INVESTIGATION REPORT

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Executive Summary

This Site Investigation Report has been prepared on behalf of C. Reiss Coal Company, LLC (C. Reiss) by Stantec Consulting Services Inc. (Stantec) to document environmental site investigation (SI) activities performed at the C Reiss Coal Dock Property in Superior, Wisconsin (herein referenced as the Site or the Property). The purpose of these activities is to comply with Chapter NR 716 Wisconsin Administrative Code (WAC) requirements as part of planned redevelopment of the Site, consisting of the construction of ancillary equipment and features to support future industrial Property use.

Laboratory results of samples collected during previously completed limited soil investigation activities in the east-central portion of the Property indicated that fill materials present in shallow soils contained Resource Conservation and Recovery Act (RCRA) metal and polycyclic aromatic hydrocarbon (PAH) constituents at concentrations above established Chapter NR 720 WAC (NR 720) soil standards. These results were shared with the Wisconsin Department of Natural Resources (WDNR) and Bureau for Remediation and Redevelopment Tracking System (BRRTS) Environmental Repair Program (ERP) case number 02-16-589248 (*C REISS COAL DOCK PROPERTY*) was subsequently assigned on February 16, 2022.

In May 2022, Stantec conducted additional soil sampling to assess surficial/fill and underlying native soil quality across the Property, as well as to determine future options for onsite soil management of excavated/displaced soils in areas of proposed development. As part of work performed by Stantec to date, 25 soil borings were installed at the Property and 43 soil samples were collected and analyzed for RCRA metals, PAHs, and/or volatile organic compounds (VOCs).

The results of completed SI activities indicate that RCRA metal, PAH, and petroleum VOC concentrations above NR 720 soil standards are present at the Property and are associated with the presence of sitewide black granular fill and historic petroleum releases currently being investigated in association with open east- and south-adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331). The source and horizontal and vertical extents of the black granular fill and residual soil impacts from historic offsite petroleum releases are sufficiently defined. Therefore, additional investigation of soil on-site is not warranted.

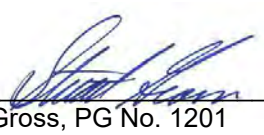
Groundwater was not sampled by Stantec as part of this SI but has been sampled by others as recently as October 2021 in association with open east- and south-adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331) and is discussed in this SI. A light non-aqueous phase liquid (LNAPL) “finger” plume is located on the southern portion of the Property originating from the adjoining Amoco properties. Dissolved petroleum VOC constituents were detected at a concentration greater than the Chapter NR 140 WAC enforcement standard (ES) in monitoring wells on the south end of Property near existing LNAPL impacts, and in the central portion of the Property near another open BRRTS case, Murphy Marine Terminal (03-16-000320). The source and horizontal and vertical extents of contamination in groundwater from these cases is well-documented, sufficiently defined, and actively being monitored as

part of several open BRRTS cases. Therefore, additional groundwater investigations are not warranted as part of the BRRTS cases associated with this SI (02-16-589248).

As described in the Stantec (2022c) *Materials Management Plan*, the proposed industrial redevelopment of the Property includes construction of engineered barriers, which will be maintained with a continuing obligation. The engineered barriers will prevent direct contact with residual fill/soil impacts and infiltration/potential leaching of residual soil impacts to groundwater and will allow existing fill/soil to be managed onsite for beneficial reuse. Due to the presence of benzene in groundwater at concentrations greater than health-based standards, post-construction sub-slab vapor sampling will be performed following the construction of future buildings at the Property to evaluate the risk for vapor intrusion and determine whether the installation of a sub-slab depressurization system (SSD) is warranted.

CERTIFICATION STATEMENT

"I, Stuart J. Gross, 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."



Stuart J. Gross, PG No. 1201 — 7/8/2022 Date

1 GENERAL INFORMATION

The following general information is required as part of Site Investigation (SI) reports prepared under Chapter NR 716 Wisconsin Administrative Code (WAC). The Site location is illustrated on **Figure 1**.

FACILITY:	C. Reiss Coal Dock Property Superior, Wisconsin
PARCEL ID:	048040101400
SIZE:	53.063 Acres
WDNR BRRTS NO.:	02-16-589248
WTM91 COORDINATES:	X: 357936.1 Y: 697633.7
SITE LOCATION:	E ½ of the NE ¼ of Section 16, and the E ½ of the SE ¼ of Section 09, Township 49 North, Range 14 West, Douglas County, Wisconsin
RESPONSIBLE PARTY:	C. Reiss Coal Company, LLC 111 West Mason Street Green Bay, Wisconsin 54303 c/o Christian Zuidmulder, General Manager Phone: (920) 436-7600 Email: Christian.Zuidmulder@Thecreiss.com
CONSULTANT:	Stantec Consulting Services Inc. 12080 Corporate Parkway, Suite 200 Mequon, Wisconsin 53092 Stu Gross, Project Manager Phone: (262) 643-9159 Email: Stu.Gross@stantec.com
WDNR:	Wisconsin Department of Natural Resources 810 West Maple Street Spooner, Wisconsin 54802-1255 Joseph Graham, Contaminated Sediments Specialist Phone: (715) 292-4925 Email: Joseph.Graham@wisconsin.gov

2 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) prepared this report on behalf of C. Reiss Coal Company, LLC (C. Reiss) to document environmental SI activities performed at the C Reiss Coal Dock Property in Superior, Wisconsin (herein referenced as the Site or the Property), as illustrated on **Figure 1**. The purpose of these activities is to comply with Chapter NR 716 WAC requirements as part of planned redevelopment of the Site.

Laboratory results of soil samples collected by Stantec in December 2021 and summarized in the Stantec (2022a) *Summary of Limited Soil Investigation* indicated that fill materials present in shallow soils at the Site contained Resource Conservation and Recovery Act (RCRA) metal and polycyclic aromatic hydrocarbon (PAH) constituents at concentrations greater than established Chapter NR 720 WAC soil standards. In response, the Wisconsin Department of Natural Resources (WDNR) was notified, and an ERP case was opened and listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS online database in February 2022 (BRRTS # 02-16-589248). Stantec subsequently submitted a *Workplan for Additional Soil Investigation* to WDNR on April 27, 2022 (Stantec, 2022b) outlining a sampling plan to further evaluate the lateral/vertical extents and environmental quality of identified fill materials and underlying native soils. The Stantec (2022b) workplan was implemented in May 2022. The results of this investigation, along with a summary of previous environmental activities completed at the Property, is included in the following sections.

2.1 Site Description/Background

Site Location: The Property is owned by C. Reiss, is currently vacant, and is planned for redevelopment to support future dock use, including the installation of a new railroad spur, access road, and site-wide grading. The Property is located in the east half of the northeast quarter of Section 16, and the east half of the southeast quarter of Section 09; Township 49 North, Range 14 West, Douglas County, Superior, Wisconsin and consists of one parcel (Parcel ID 048040101400), zoned “W1-Waterfront”, comprising approximately 53 acres. It is bordered by St. Louis Bay to the north, active industrial dock properties to the west and east, and the Burlington Northern Santa Fe Railway right-of-way to the south. Further surrounding land uses are primarily industrial in nature.

The northern portion of the Property has access to the west-adjoining dock slip and features concrete panels across the majority of the surface which provided a firm surface for former/historical dock shipping, handling and storage operations. The southern portion of the Property generally consists of forested land and wetlands, with a deteriorating paved access road along the western Property boundary that transitions to gravel/dirt moving northward.

There are no existing buildings on the Property, but the metal remnants of a former aboveground oil-water separator tank are present just east of the south end of the dock slip along with two, eight-inch buried/inactive petroleum pipelines running from this area to the east-adjoining property (refer to **Figure 2B**).

Historical Site Use/Occupancy: Per the *Historic Records Screening Report* performed for the Property and surrounding area by The Sigma Group, Inc. (Sigma) dated November 2019 (Sigma, 2019), no

surface land mass was originally present on the approximate northern half of the Property, as it was originally part of St. Louis Bay that was subsequently filled in the early 1900's to construct the current dock. The location of the historic Property shoreline is illustrated on **Figure 2B**. The dock was used for open air coal storage and/or dry bulk goods receipt from 1907 through the turn of the Century. The source of the fill material used for constructing the dock on the northern half of the Property is unknown but appears to be largely comprised of red-brown sand during the sampling performed by Stantec in May 2022 and discussed in Section 5.1.

A building was constructed at the southern end of the dock slip in the late 1800's, and was used for a variety of industrial uses (charcoal plant, blast furnace, twine manufacturing) through the early 1900's. By 1912, the building was converted to a coal briquet manufacturing plant and operated through the 1960's. The plant was demolished sometime in the early 1970's (Sigma, 2019).

The southern portion of the Property was used for rail access/loading and for access to the coal briquet and petroleum/coal dock operations on the north end of the Property.

Adjoining Site Use/Occupancy: The adjoining property to the west is an active industrial dock occupied by Hallett Dock Company; the northern half of this property is utilized for storage of dry bulk goods, while the southern half has three large aboveground storage tanks for liquid bulk good storage.

The east-adjoining and south-adjoining properties were formerly operated by Amoco Oil Company and were utilized for petroleum transfer and storage. Amoco Oil Company operated on the very eastern portion of the same dock as the Property and pumped petroleum products via an underground piping network to the bulk storage terminal on the south side of Winter Street. Bulk oil storage and transfer operations occurred at these sites by 1892 and included petroleum storage tanks and pipelines running along/near the dock, barrel yards, an oil transfer building, oil railcar housing, and a pumphouse. Petroleum operations ceased by 1993 (Sigma, 2019). The majority of these features have been demolished/removed, and the piping network was abandoned via removal by the early 2000's. There are known impacts to soil and groundwater from environmental releases associated with these former Amoco Oil Company sites; these are discussed in Section 2.3 and Section 5.3.

2.2 Site Hydrogeologic Setting

The entire Property is located in an Area of Minimal Flood Hazard and is bordered by St. Louis Bay to the north (FEMA, 2022). Unconsolidated fill and soil at the Site overlie the Middle Proterozoic Bayfield Group of the Keweenawan Supergroup (previously called Western Lake Superior sandstone), which is comprised chiefly of quartz, nonmarine sandstones and is present greater than 100 feet below ground surface at the Site (USGS, 2022). As illustrated on the Antea®Group (Antea) "Figure B.3.a Geologic Cross Section" illustrating the southern portion of the Property and included in **Appendix A**, native soils overlying bedrock include a mantle of red-brown clay up to 28 feet thick, underlain by sand and silty sand (Antea, 2016).

Some degree of filling has occurred in most locations at the Property. Anthropogenic fill was present to an average depth of three feet below ground surface (ft bgs) and generally comprised of black granular coal fill. As discussed in Section 2.1, the northern half of the Property represents an area of fill as part of dock construction circa 1907, comprised largely of red-brown sand down to the original lakebed surface.

The depth to groundwater varies from near surface on the north end of the Site, to approximately 15 ft bgs to the south. Over most of the Site the groundwater gradient is north-northwest towards St. Louis Bay and discharges to the bay or adjoining dock slip. The elevation of the surface water of St. Lous Bay is approximately 605 feet above mean sea level (FEMA, 2022).

2.3 Environmental Case History

02-16-297979 AMOCO BARGE DOCK - OW SEPARATOR & LOAD RACK (East-adjoining property); 02-16-117873 AMOCO BARGE DOCK - MANIFOLD & AST AREA (East-adjoining property); and 02-16-000331 AMOCO OIL TERMINAL (South-adjoining property)

The three, open ERP cases above are being described together due to their common histories and comingled nature of contaminants. These cases were opened between 1985 and 2002 following the discoveries of petroleum contamination and LNAPL to soil and groundwater in the areas of the former Amoco Barge Dock oil-water separator (east-adjoining property), the former Amoco manifold area (east-adjoining property), and Amoco Terminal (south of Winter Street) in association with extensive bulk petroleum storage and handling from the late 1800's through 1999. The locations of these cases relative to the Property are illustrated on **Figure 3**. Petroleum infrastructure was removed from these properties between 1999 and 2020.

These properties have undergone extensive remedial and investigative efforts, including the installation and operation of a vapor extraction/total fluids recovery system on the south-adjoining property, a passive vapor removal system on the east-adjoining property, skimming systems to recover LNAPL from plumes on the east-adjoining property and nearby sites (including the southern portion of the target Property), and the annual monitoring of network of 118 groundwater monitoring wells (including 40 wells on the target Property).

Groundwater generally flows north-northwest across the Property, encountered approximately 15 ft bgs on the south end of the Property, and approximately 1.5 ft bgs on the north end of the Property near the dock slip. Per the Antea (2022) *2021 Progress Report, January – December 2021*, an LNAPL finger plume is present in the southern portion of the site, with measured thicknesses in 2021 ranging from 0.02 to 7.27 feet in Property wells (refer to **Figure 2A**). In 2021, product, where present, was generally encountered 12 ft bgs or deeper. Per Antea (2022), the current skimming system on the Property has reached asymptotic recovery and is recommended to be discontinued following the 2022 operating season.

Concentrations of petroleum volatile organic compounds (PVOC; namely benzene) constituents greater than the Chapter NR 140 WAC (NR 140) enforcement standard (ES) have been identified in Property groundwater wells near former petroleum infrastructure and in proximity to the LNAPL finger plume. Quantitative soil sampling data is limited for the Property as part of these cases, but unsaturated soil samples taken at the Property are below Chapter NR 720 WAC (NR 720) residual contaminant levels (RCLs)

03-16-000320 MURPHY MARINE TERMINAL (Target Property)

This Leaking Underground Storage Tank case was opened in 1990 when petroleum contamination to soil was discovered during the removal of two underground storage tanks (USTs) at the Murphy Marine

Terminal site, located east of the southern end of the dock slip. The location of this case relative to the Property is illustrated on **Figure 3**. Murphy Marine Terminal was formerly used as a petroleum product loading facility. Petroleum products from the east-adjoining refinery property were pumped via underground pipeline(s) to the Murphy Marine Terminal to ultimately transfer to incoming ships. The fenced area of Murphy Marine Terminal included one, 8,500-gallon UST which held ballast water released from ships loading in the neighboring dock slip, and an aboveground tank that separated oil from the ballast water (refer to **Figure 2B**). A second, 1,000-gallon UST was located north of the fenced area and was part of the Property's spill containment system along the dock. Approximately 41 cubic yards of petroleum-impacted soil has been excavated from these areas, with several shallow confirmation samples indicating that petroleum impacts (PVOCs and PAHs) remain at concentrations greater than NR 720 RCLs but below industrial direct contact (IDC) criteria. Groundwater was encountered approximately four to six ft bgs, and temporary well samples taken in May 2005 (from GP-1 and GP-4) indicated that groundwater was not adversely impacted in the area by PAHs and/or PVOCs. This case remains open, with the latest report available on BRRTS indicating that the PVOC/PAH impacts may be from the industrial fill present in the area (Barr, 2022).

Samples taken on the Property in association with this case include SS#1 through SS#4, GP-1 through GP-7, N through N-35, E through E-15, S through S-35, and W through W-15.

02-16-297977 AMOCO OIL BARGE DOCK - FMR BARGE DOCK (East-adjoining property)

This ERP case was opened in 2002 when petroleum contamination to soil in association with an UST and associated (inactive) aboveground and belowground piping was discovered at the former Amoco Barge Dock property, an east-adjoining property to the Site. The location of this case relative to the Property is illustrated on **Figure 3**. The 500-gallon UST (which formerly served to collect spillage that occurred during delivery of petroleum products to the southern Amoco Terminal property via the pipelines running the length of the property) was removed in 2002, and approximately 850 cubic yards of petroleum-impacted soil in the area was excavated and backfilled with #2 stone (including a small area west of the shared Property boundary). Confirmation samples taken of the excavation sidewalls had no petroleum detections at concentrations greater than NR 720 RCLs. Groundwater was encountered approximately four ft bgs, and a temporary well sample taken in April 2003 (TWBD-2) indicated that groundwater was not adversely impacted in the area by the release. The case was closed in 2004 with no continuing obligations.

Samples taken on the target Property in association with this case include BDGP-1, BDS-2 through BDS-7, and TWBD-2.

02-16-589248 C REISS COAL DOCK PROPERTY (Target Property)

On December 9, 2021, Stantec performed a limited soil investigation in the east-central portion of the Property to evaluate soil quality in the area of a future onsite stormwater retention pond. The results of the soil sampling were summarized in a report prepared by Stantec (2022a). Fill materials present in shallow soils (zero to three feet below grade) contained RCRA metal and PAH constituents at concentrations above NR 720 RCLs. ERP case number 02-16-589248 C REISS COAL DOCK PROPERTY was subsequently assigned on February 16, 2022.

Ahead of proposed redevelopment activities at the Property, Stantec submitted a workplan (2022b) to WDNR on April 27, 2022 to outline intended investigation activities to further evaluate the lateral/vertical extents and environmental quality of identified fill and underlying native soils. The workplan was implemented in May 2022, and further described in Section 3.

3 DESCRIPTION OF INVESTIGATION

During May 2022, additional investigation activities were completed at the Property. A photographic log is included as **Attachment A**. Soil boring locations installed as a part of this scope and from previous investigations are illustrated on **Figure 2**. A summary of soil investigation methods is presented below.

3.1 Soil Borings – May 2022

On May 4 and 5, 2022, Soils & Engineering Services, Inc. (SES) of Madison, Wisconsin advanced 20 soil borings (STN1 through STN20) using direct-push Geoprobe drilling techniques. Soil samples were collected continuously from each boring, from the ground surface to a typical depth of 12 ft bgs (with a maximum depth of 16 ft bgs). These soil borings were advanced to assess surficial/fill and underlying native soil quality across the Property, as well as to determine future options for onsite soil management of excavated/displaced soils in areas of proposed development (e.g., access road, rail spur, future stormwater retention pond).

All probe drilling rods and soil sampling equipment were clean when brought on site and were cleaned between each drill site. Hydraulic probe sampling barrels were decontaminated with an Alconox® equivalent wash and water rinse prior to the collection of each soil sample. New disposable plastic "sleeve" liners were used for collection of each soil sample to minimize cross contamination of soil samples.

Soil samples were visually and physically examined by Stantec field geologists and observations made of the general lithology (percentages of gravel, sand, silt, and clay), visible layering, evidence of non-native fill/anthropogenic materials (with estimated percentages of these materials contained in the soil matrix), indications of chemical or other staining, odors, and other distinctive features. Field observations are described on soil borehole logs provided in **Attachment B**. Soil borehole abandonment forms are provided in **Attachment C**.

Portions of soil from approximately every two-foot interval were field screened for the presence of VOCs using a photoionization detector (PID) equipped with an 11.7 electronvolt lamp and calibrated to 100 parts per million as isobutylene. PID readings were recorded on the soil boring logs presented in **Attachment B**. Soil cuttings generated as part of this event were wither used for sampling purposes or left adjacent to the soil boring locations and will ultimately be capped as part of engineered barrier construction at the Site (where warranted).

Selection of soil samples for laboratory analysis was based upon depth, presence of fill materials, and field screening readings. Soil samples selected for analysis were placed directly into laboratory-supplied containers, preserved as appropriate, and immediately placed in a cooler on ice for shipping to Eurofins TestAmerica in Chicago, Illinois (State of Wisconsin Laboratory Certification Identification 999580010), under a chain of custody for analysis. Soil sample analyses included PAHs (SW846 8270D), RCRA metals (SW846 6010C, SW846 7471B), and VOCs (SW846 8260B). Two composite soil samples were collected for a variety of waste characterization parameters. Soil laboratory analytical results are included in **Attachment D**.

4 APPLICABLE CLEAN-UP CRITERIA

Soil – NR 720: Procedures for establishing soil clean-up standards applicable to sites in Wisconsin are specified in NR720 (WDNR, 2013). Soil clean-up standards depend in part on land use. Current and future proposed Property uses are for industrial purposes; therefore, soil quality is compared to IDC standards, as outlined in the December 2018 Update, version RR-052h, of the WDNR RCL spreadsheet (WDNR, 2018).

As part of the revisions to NR 720, the WDNR adopted use of background threshold values (BTVs) for select metals in soil whose occurrence may be attributable in whole or in part to natural occurrence in Wisconsin soil. BTVs are “non-outlier trace element maximum levels in Wisconsin surface soils” as determined through a state-wide study. BTVs were established for 16 metals, including arsenic and lead. Probably the most significant BTV is the value of 8.0 milligrams per kilogram established for arsenic. This value is significant because the RCLs calculated for the direct contact and groundwater pathways are significantly lower than this value, which in the past resulted in sites with relatively low levels of naturally occurring arsenic significantly exceeding the clean-up levels. If measured levels of arsenic or lead are less than the BTVs, these levels can be attributed to natural occurrence without the need to perform a WDNR-approved site-specific study to determine background levels. Soil quality data are compared to NR720 RCLs on **Table 1**.

Soil – 40 CFR 261.24: Concentrations of waste characterization constituents in soil following extraction using the toxicity characteristic leaching procedure (TCLP) will be compared to toxicity thresholds outlined in 40 CFR 261.24. Data are summarized on **Table 2**.

Groundwater – NR 140: Public health-related groundwater quality standards are set forth by NR 140 (WDNR, 2017). Standards are listed for substances of public health concern (defined as substances having carcinogenic, mutagenic, or teratogenic properties, or interactive effects) and substances of public welfare concern (defined as having a negative aesthetic value but with little threat to human health). Two levels of standards are listed, the preventive action limit (PAL) and the ES. The ES represents a concentration above which action generally must be taken to improve the quality of groundwater. The PAL represents a lower concentration (usually 10 to 20 percent of the ES) above which groundwater quality should be monitored.

- Note that no groundwater samples were collected as part of this SI, but previous groundwater sampling performed by others and compared to these criteria is discussed in Section 5.3.

5 INVESTIGATION FINDINGS

5.1 Geologic/Hydrogeologic Conditions

Surface conditions for the dock encompassing the north end of the Property largely consisted of concrete panels and, to a lesser extent, vegetation (woody shrubs and tall grass/weeds) present between the panel joints and along the western and eastern edges of the dock walls. Underlying these surface materials was a one to two feet of fill containing sands, gravels, and/or black granular pieces of anthropogenic materials (ex. coal pieces). Beneath this fill unit was a red-brown, non-native uniform sand, which was presumably used as the base of the imported material to the Property to construct the dock in 1907. Apparent native silts/sands were encountered between eight ft bgs on the south end of the dock, to 12 ft bgs on the north end of the dock (refer to **Figure 4**). Saturated conditions on the dock were present at elevations ranging from near surface to a depth of approximately three ft bgs. These conditions are consistent with previous soil/groundwater events performed on the north end of the Property.

Surface conditions for the south end of the Property largely consisted of wooded vegetation and wetland areas, with one gravel/concrete road for vehicle access. Underlying these surface materials was a black, granular anthropogenic fill unit containing coal and/or brick pieces and ranging from 0.25 to 12 feet thick (with a median/typical thickness of 2.5 feet). Native soils were generally comprised of red-brown clay (and, to a lesser extent, silt and sand lenses), which was encountered at elevations ranging from near-surface on the south end of the Property, to a depth of eight feet as the original shoreline prior to 1907 is approached to the north (refer to **Figure 4**). These conditions are consistent with previous soil events performed on the south end of the Property. Saturated conditions were encountered at approximately 7.5 ft bgs on the very southern end of the Property in soil borings performed in May 2022, though it is worth noting that this was likely biased shallow by recent mass snowmelt and precipitation. Groundwater elevations reported in monitoring wells in this area in May 2021 indicate that the depth to groundwater is approximately 15 ft bgs on the very southern end of the Property (Antea, 2022). Bedrock was not encountered as part of this investigation.

The overall trend of saturated conditions for the Property was consistent with previous investigations. The apparent groundwater was deepest on the southern end of the Property, and shallowest to the north. Based on saturated conditions observed during field activities, groundwater flow is likely to be in a north-northwesterly direction towards the St. Louis Bay and coal dock slip on the northern end of the Property.

5.2 Soil Quality, May 2022 (Stantec)

Hydrocarbon odor and elevated PID readings were present in one soil boring location (STN16) on the north end of the Property from near-surface to approximately 10 ft bgs. No hydrocarbon odor or elevated PID readings were not or measured in any other sample performed at the Property in May 2022. The results of the PID screening are included in the soil boring logs presented in **Attachment B**. Soil borehole abandonment forms are provided in **Attachment C**. Soil laboratory analytical data is provided in **Attachment D**. Geologic cross sections illustrating Site soils and fill extents are depicted on **Figure 4**, and the extent of Stantec (2022a,b) soils with concentrations greater than target NR 720 RCLs is depicted on **Figure 5**. A summary of soil quality results is discussed below.

5.2.1 SOIL QUALITY – ENVIRONMENTAL SUMMARY

VOCs

A total of 13 VOC constituents were detected at concentrations greater than the laboratory reporting limit, all of which were petroleum related; no chlorinated VOC constituents were detected in any soil sample. As summarized in *Table A* and detailed on **Table 1**, two VOC constituents were detected at concentrations greater than their respective groundwater protection RCL in two samples at the Property (STN2 and STN16). Benzene was present in the black, granular fill present in surficial soils at STN2 from 0 to 2.5 ft bgs, which was performed in an area of known petroleum impacts and LNAPL in the southwest portion of the Property. Underlying native clay (present at 2.5 ft bgs) was visually unimpacted.

Benzene was also present in the black, granular fill present in surficial soils at STN16 from 0 to 1.5 ft bgs, which had a faint hydrocarbon odor and was performed in an area of a former product seep documented at the Property and removed in 2003. Total trimethylbenzenes were detected in a fill sand soil sample with the highest PID reading taken from 3.5 to 5 ft bgs. The sample collected from this depth was saturated as groundwater was present approximately 1.5 ft bgs at this location. Underlying native silt/sand was visually unimpacted by a depth of 10 ft bgs, with no hydrocarbon odor present from 10 to 12 ft bgs.

Due to the proximity of these sample locations to known historic petroleum releases previously and/or currently being investigated in association with adjoining property BRRTS cases, these soil sampling results are consistent with previous sample points performed at the Property; PVOC impacts to soil are attributed to documented releases, with no other VOC contributions to anthropogenic fill or native soils screened/sampled elsewhere on the Property. No VOC constituents were detected in fill or native soils as part of Stantec (2021).

Soil borings STN2 and STN16 were performed in the alignment of the proposed access road and/or railroad spurs for the Property (refer to the Stantec [2022c] *Materials Management Plan*); these will serve as an engineered barrier for future infiltration in these locations.

***Table A**: VOC constituent detections exceeding exposure pathways in 2022.*

VOC Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL	Groundwater Protection RCL
Benzene	No	No	**Yes**
Trimethylbenzene, Total	No	No	**Yes**

PAHs

As summarized in *Table B* below and detailed on **Table 1**, seven PAHs were detected at concentrations greater than their respective groundwater protection RCLs, and nine PAHs were detected at concentrations greater than their respective non-industrial direct contact (NIDC) RCLs across the

Property. Six PAH constituents were detected at concentrations greater than their respective IDC RCLs in soil borings STN2, STN5, and STN9 through STN15.

Site-wide PAH concentrations greater than risk-based RCLs are attributed to the heterogeneous black granular fill unit present across the Property, as each sample collected at the Property with PAHs at concentrations greater than health-based RCLs was taken from this fill. Samples taken of native soils beneath the fill unit at the Property did not have PAH impacts above established RCLs, indicating that PAH impacts are limited to the black granular fill unit and have not leached to the native underlying soils.

These results are consistent with the soil information gathered from previous soil sampling events performed at the Property (e.g., Stantec [2021]), with PAH constituents detected at concentrations greater than direct contact RCLs in surficial black fill materials across the Property, but not impacting native soils. The extent of this fill unit is illustrated on **Figure 4.**

Areas where PAHs are present at concentrations greater than IDC RCLs will be managed with the following engineered barriers proposed as part of Property development (Stantec [2022c]):

- Proposed access road and/or railroad spur: STN2, STN5, STN11, STN13, STN15
- Proposed stormwater pond, to be constructed with a clay liner: STN9, STN10, STN12
- Existing concrete dock paneling: STN14

***Table B**: PAH constituent detections exceeding exposure pathways in 2022.*

PAH Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL	Groundwater Protection RCL
Benzo(a)anthracene	**Yes**	**Yes**	*Not Established*
Benzo(a)pyrene	**Yes**	**Yes**	**Yes**
Benzo(b)fluoranthene	**Yes**	**Yes**	**Yes**
Benzo(k)fluoranthene	**Yes**	No	*Not Established*
Chrysene	**Yes**	No	**Yes**
Dibenzo(a,h)anthracene	**Yes**	**Yes**	*Not Established*
Fluoranthene	No	No	**Yes**
Fluorene	No	No	**Yes**
Indeno(1,2,3-cd)pyrene	**Yes**	**Yes**	*Not Established*
Methylnaphthalene, 1-	**Yes**	No	*Not Established*
Naphthalene	**Yes**	**Yes**	**Yes**
Pyrene	No	No	**Yes**

RCRA Metals

As illustrated on *Table C* below and detailed on **Table 1**, six RCRA metal constituents were detected at a concentration greater than the SBTV and/or groundwater pathway. Arsenic and/or lead were detected at concentrations greater than their respective IDC RCLs in soil borings STN5, STN8, STN10, STN14, STN18 and STN20.

Apart from two sample locations (STN14 and STN20), each soil sample containing metals at concentrations greater than direct contact RCLs were collected within the black granular fill present across the Property. Black granular fill was not present STN14 (0 to 2 ft bgs) or STN20 (1 to 3 ft bgs), which instead had non-native fill sand (used in the construction of the dock in 1907) with arsenic at concentrations greater than the BTV in these two near-surface sample locations.

With the exception of one silver detection at a concentration greater than the groundwater protection RCL (STN7 4 to 6 ft bgs taken in native clay), samples taken of native soils beneath the fill unit at the Property did not have RCRA metal impacts greater than established RCLs, indicating that RCRA metal impacts are limited to the black granular fill unit and have not leached to the native underlying soils.

These results are consistent with the soil information gathered from previous soil sampling events performed at the Property (e.g., Stantec [2021]), with RCRA metal constituents detected at concentrations greater than direct contact RCLs in surficial black fill materials across the Property, but not impacting native soils. The extent of this fill unit is illustrated on **Figure 4**.

Areas where arsenic and/or lead are present at concentrations greater than IDC RCLs will be managed with the following engineered barriers proposed as part of Property development (Stantec [2022c]):

- Proposed access road and/or railroad spur: STN5, STN8, STN18, STN20
- Proposed stormwater pond, to be constructed with a clay liner: STN10
- Existing concrete dock paneling: STN14

***Table C**: Metal constituent detections in soil exceeding exposure pathways in 2022.*

Metal Constituent	Exposure Pathway Exceeded in One or More Soil Samples?		
	Non-Industrial Direct Contact RCL + BTV	Industrial Direct Contact RCL + BTV	Groundwater Protection RCL and/or BTV
Arsenic	**Yes**	**Yes**	**Yes**
Lead	**Yes**	**Yes**	**Yes**
Cadmium	No	No	**Yes**
Mercury	No	No	**Yes**
Selenium	No	No	**Yes**
Silver	No	No	**Yes**

5.2.2 SOIL QUALITY - WASTE CHARACTERIZATION SUMMARY

As proposed in the Stantec (2022b) workplan, two soil samples were composited and submitted for typical waste characterization parameters in the event that these materials would need to be disposed of at a landfill at a later date.

- Composite sample STN-A was taken from soil borings and depths representing the proposed railroad cut at the Property (STN1, STN3, STN6 and STN13).
- Composite sample STN-B was taken from soil borings and depths within the proposed pond (STN9, STN10 and STN12) and access road cut (STN2, STN5, STN8 and STN11).

These samples were both taken on the southern portion of the Property, as the northern portion of the Property represents an area of fill rather than cut (refer to Stantec [2022c]). Waste characterization sample results are compared to Environmental Protection Agency (EPA) TCLP *Maximum Concentration of Contaminants for Toxicity Characteristic* values on **Table 2**; no EPA TCLP regulatory limits were exceeded for any constituent in either waste characterization sample.

5.2.3 QUALITY ASSURANCE/QUALITY CONTROL

Detected constituents at concentrations greater than the detection limit, but less than the reporting limit are qualified with a “J” flag in the laboratory report (**Attachment D**) and **Tables 1 and 2**.

The lab control sample or lab control sample duplicate was outside of acceptable limits for PAH constituents benzo(a)anthracene and benzo(a) pyrene. These are qualified with a “*” flag on **Table 1** and with a “*1” in the laboratory report. Though reported concentrations were present in several samples at concentrations greater than the remedial objective of industrial direct contact for the Property, additional PAH constituents were present in each instance at concentrations greater than direct contact RCLs without this data quality issue; therefore, any bias is not considered significant.

PAH constituents benzo(b)fluoranthene and benzo(k)fluoranthene were unresolved during laboratory analysis of sample STN17 0-1.25 due to the sample matrix, and the result was fully reported as benzo(b)fluoranthene. This is qualified with a “K” flag on **Table 1** and in the laboratory report. Though the concentration of benzo(b)fluoranthene may have been below the NIDC RCL if successfully resolved by the lab, the reported concentration is still less than the remedial objective of industrial direct contact for the Property; therefore, any bias is not considered significant.

Several soil detections for RCRA metal constituents cadmium and chromium were additionally detected in the internal laboratory blank. These detections are qualified with a “B” on **Table 1**, and may be associated with a laboratory artifact. The reported concentrations were less than the remedial objective of industrial direct contact for the Property; therefore, any bias is not considered significant.

The matrix spike (MS) or matrix spike duplicate (MSD) exceeded control limits for RCRA metal constituents arsenic, chromium, lead, selenium and/or silver in soil samples STN1 0.25-2.5 and STN11 10.5-12. This is qualified with a “F1” flag on **Table 1** and in the laboratory report. Additionally, the MS/MSD relative percent difference exceeded control limits in STN1 0.25-2.5 for lead. This is qualified

with a “F2” flag on **Table 1** and in the laboratory report. Each of these reported RCRA metal concentrations were less than the health-based RCLs; therefore, any bias is not considered significant.

As illustrated on **Table 1**, the concentrations of detected constituents in the soil field duplicate (“FD1”) taken for VOCs are similar to the parent field sample (STN2 0-2.5).

The sample trip blank (identified in the laboratory report as “Trip Blank”) that accompanied the sample containers to/from the laboratory and listed on **Table 1** had no VOC constituent detections. Therefore, the soil data is considered appropriate for use in this investigation.

In conclusion, although select laboratory QA/QC requirements were slightly outside of project goals, the use and interpretation of soil quality data in this SI remains valid for the purpose of planning for industrial redevelopment.

5.2.4 STANTEC (2022) WORKPLAN DEVIATIONS

The Stantec (2022b) workplan indicated that soil borings would be advanced to a maximum depth of 10 ft bgs. Each soil boring performed in May 2022 was instead advanced to 12 ft bgs, with one sample on the north end of the Property dock advanced to a maximum depth of 16 ft bgs (STN19) to confirm the depth to native soils in this area.

There were no other deviations from the Stantec (2022b) workplan.

5.3 Groundwater Quality (Prior to 2022, performed by others)

No groundwater sampling was performed as part of this SI, but groundwater sampling as recently as October 2021 has been performed by others at former/existing groundwater monitoring wells and remediation systems at on the Property (Antea, 2022). A summary of relevant groundwater sampling historically performed at the Property is included below, separated by relevant BRRTS case(s).

5.3.1 AMOCO BRRTS CASES (02-16-297979, 02-16-117873 AND 02-16-000331)

Antea (2011). In September 2011 (prior to the installation of the LNAPL skimming system in 2012), 23 groundwater grab samples were collected from temporary points GP100 through GP105, and GP200 through GP217 on the Property for PVOC analysis. These samples were collected to delineate the LNAPL plumes and to give a better idea of potential impacts on the northern portion of the target Property. Of these samples, 11 were found to have PVOCs (namely benzene) present at a concentration greater than the ES across the southern and central portions of the Property. The results of this groundwater sampling event are included on *Table 6* of Antea (2022).

Antea (2022). In the most recent 2021 Annual Progress Report for the open Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331) Antea (2022) summarized environmental sampling and remediation performed in association with these cases, including the following relevant to the target Property:

- Groundwater monitoring, including depth to water measurements of 40 wells on the target Property, PVOC sampling (plus naphthalene), and reporting of LNAPL thicknesses, if present; and,

- Operation and maintenance of a LNAPL skimming system with five active recovery wells (MRW-5, MRW-6, MRW-7, MRW-8 and MWM-3) on the Property to address the LNAPL finger plume in this area of the Property. Each of these wells contains a pneumatic skimming pump that removes accumulated LNAPL and pumps it via an aboveground pipe network into a recovery tank on the east-adjoining property. This LNAPL skimming system has been active since June 2012.

Groundwater was encountered approximately 15 ft bgs on the south end of the Property and becomes shallower, resulting from decreasing surface elevations from south to north, approaching the dock slip with a north-northwest flow direction. Dissolved PVOC constituents (namely benzene) were detected at a concentration greater than the ES in the following five Property monitoring wells in May/October 2021:

- Southern end of Property, near LNAPL impacts: MW-30D, MW-30S and MWT-2D

- Central portion of Property, near Murphy Marine Terminal: MWRR-1D and MWBD-1D

LNAPL was present in the following 13 Property wells during the most recent October 2021 sampling event with the following range of product thickness on the Property:

- Very southern end of Property: MW-32, RW-8 and RW-9 (0.02 to 1.15 ft)

- Active LNAPL recovery wells: MRW-5, MRW-6, MRW-7, MRW-8 and MWM-3 (0.04 to 0.32 ft)

- Wells near LNAPL recovery wells: LRMW-4, MRW-10, MWAST-4 and MWM-6 (0.10 to 7.27 ft)

- Central portion of Property, near Murphy Marine Terminal: MWOW-1 (0.15 ft)

Cumulative historical depth to water and LNAPL thicknesses, as well as a cumulative history of groundwater analytical results, are depicted on *Table 4* and *Table 6* of Antea (2022), respectively.

5.3.2 MURPHY MARINE TERMINAL BRRTS CASE (03-16-000320)

Gannett Fleming (2005). Groundwater investigation activities were performed in May 2005 as part of the Murphy Marine Terminal case included the installation and sampling of two temporary wells (GP-1 and GP-4) to investigate whether the petroleum-impacted soils identified in the area were impacting groundwater, which was encountered four to six ft bgs.

- GP-1 was installed in the center of the former 1,000-gallon UST excavation, located north of the fenced area formerly part of the Property's spill containment system along the dock (refer to *Figure 3* of Barr [2022]). A shallow soil sample (0 – 2 ft) collected from this location indicated that PVOC contamination was present at a concentration greater than the groundwater protection RCL, and that PAHs were present at a concentration greater than the NIDC RCL. Brown/black industrial fill was noted to be present to a depth of at least eight ft bgs in this location. The temporary well was sampled for these constituents of concern and was found to have no PVOC

or PAH detections in groundwater above health-based standards, indicating that groundwater was not impacted by the former petroleum release and/or industrial fill present.

- GP-4 was installed just outside of the excavation within the fenced area of Murphy Marine Terminal for the former 8,500-gallon ballast water UST. A shallow soil sample (0 – 2 ft) collected from this location with petroleum detections below health-based RCLs. Brown/black industrial fill was noted to be present to a depth of at least four ft bgs in this location. The temporary well was found to have no PVOC detections, indicating that groundwater was not impacted by the former petroleum release.

These May 2005 soil and groundwater analytical results are tabulated on *Table 3* and *Table 4* of Gannett Fleming (2005), respectively.

Barr, 2022. On January 6, 2022, Barr Engineering Co. (Barr) a 2021 Status Report for the Murphy Marine Terminal Site indicating that Property soils include at least four feet of industrial fill with PAHs, PVOCs and lead present at concentrations greater than health-based RCLs, with sources being from fragments of coal and/or pitch binder used in the historic manufacturing of coal briquettes, historic fuel loading and/or the east-adjoining Amoco BRRTS cases. In relationship to groundwater quality, Barr (2022) references the non-detect temporary well samples from GP-1 and GP-4 in 2005 collected for PVOCs and PAHs, as well as nearby monitoring well MWBD-1 installed by Antea in 2013 as part of the Amoco BRRTS cases having no PVOC detections. Barr (2022) intends to pursue case closure, stating that no further field work in necessary to characterize the Murphy Marine Terminal site.

5.3.3 CLOSED AMOCO OIL BARGE DOCK BRRTS CASE (02-16-297977)

Delta, 2003. Following the removal of the former petroleum 500-gallon UST and associated piping along the Amoco portion of the eastern edge of the dock, the area was remedially excavated, and confirmation soil/groundwater samples were collected from 2002 and 2003 and documented in the Delta Environmental Consultants, Inc. (Delta) *Case Summary* (Delta, 2003).

Confirmation soil samples performed on the Property in 2002 had no PVOC detections following remediation, and confirmation groundwater samples collected from Property temporary well TWBD-2 in 2002 and 2003 had no PVOC or PAH detections in either sampling event, indicating that Property groundwater was not impacted by the former petroleum release and/or industrial fill present. Groundwater was encountered approximately three ft bgs and flows east (away from the dock).

These 2002 and 2003 soil and groundwater analytical results are tabulated on *Table 3* and *Table 4* of Delta (2003), respectively.

5.4 Migration Pathways and Potential Receptors

Based on findings from historical investigations and the 2022 SI data, Stantec evaluated potential contaminant migration pathways at the Site; the findings are summarized below.

Vapor Intrusion: The term “vapor intrusion pathway” generally refers to subsurface contamination that can move through the air-filled pores of vadose zone soils and enter the breathing space of buildings. WDNR notes that due to their high volatility and health risk, VOCs, particularly chlorinated VOCs, are the

contaminants that most commonly trigger assessment of the vapor intrusion pathway. Current WDNR guidance notes that vapor intrusion of benzene and other PVOCs occurs most often when free phase product is located near building foundations, where petroleum contaminated groundwater has entered a building, or where contaminated groundwater is in contact with the building foundation.

There are currently no structures on the Site; therefore, the vapor intrusion pathway is not currently a pathway of concern. However, the presence of LNAPL and benzene has been documented (in association with the historical releases of petroleum at the east- and south-adjoining Amoco properties) to be present in various monitoring wells across the south and central portions of the Property in groundwater at concentrations greater than the ES as part of investigations performed by others (e.g., Antea 2022). Post-construction sub-slab vapor sampling will be performed following the construction of future buildings at the Property to evaluate the risk for vapor intrusion and determine whether the installation of a SSD is warranted. Due to the nature and degree of identified soil/fill contamination, it is unlikely vapor intrusion would result from the movement of contaminated soil/fill within the confines of the Property.

Sediment/Surface Water: St. Louis Bay borders the Property to the north, and an adjoining dock slip accessed via St. Louis Bay borders the northern portion of the Property to the west. As summarized in the WDNR *Beneficial Use Impairments Related to Sediment Contamination in the Hallett Dock No. 8 / C. Reiss Coal Slip, St Louis River Area of Concern (AOC), Superior, Wisconsin* dated February 23, 2022, sediment samples collected from the eastern and southern portions of the slip were impacted with PAHs, toxic for benthic organisms, and contribute to beneficial use impairments (BUIs) for the slip (WDNR, 2022). Redevelopment is planned to improve sediment and surface water quality in the dock slip by dredging approximately 42,500 cubic yards (CY) of sediment (25,000 CY of which is estimated to be contributing to the dock slip BUIs), placing dredged material on the Property, and capping it with an impermeable surface (Stantec, 2022c).

As discussed in Stantec (2022c), dredged sediment will be offloaded onto the Property and allowed to gravity dewater prior to placement and eventual encapsulation/capping of the material on the Property. The water generated from the gravity dewatering of the dredged sediment will be routed to the onsite stormwater pond via gravity and/or pumping. Appropriate stormwater and erosion control measures will be put in place and appropriate permits obtained prior to Site activities to minimize erosion and Site stormwater runoff (Stantec, 2022c). With the Stantec (2022c) controls in place, stormwater runoff does not appear to be a significant threat to surface water quality.

Water Supply: Residents of the City of Superior receive potable water from Lake Superior. No known water supply wells are present at the Property. Stantec conducted a search for nearby groundwater wells using the WDNR Well Construction Information System (WDNR, 2022b) and determined that there are no known public or private wells located within 1,200 feet of the Property. Based on the above information, the migration potential of contaminants associated with the Site to water supply wells appears to be very low.

Wetlands: The Property is located within a developed area of Superior, Wisconsin. As documented in the Stantec (2019) *Assured Wetland Delineation Report* dated October 28, 2019, seven wetlands (W1 through W7) were identified and delineated across the Property. Wetlands W4 and W5 encompass the majority of the northern portion of the Property and had formed on top of the concrete panels and/or filled

area north of the previous shoreline; these wetlands were granted artificial wetland exemption by WDNR on November 20, 2019 (WDNR, 2019).

Portions of the delineated wetlands on the southern portion of the Property will be disturbed as part of proposed construction (refer to *Attachment A* of Stantec [2022c]). A temporary diversion berm will be constructed concurrent with Property redevelopment to prevent the migration of contaminated runoff water to the existing wetlands on the southern portion of the Site. With the Stantec (2022c) controls in place, no additional environmental risk to wetlands is anticipated.

Utilities: Utilities are present in the south-adjoining rights of way to the Site, and new utility infrastructure is proposed to be installed on the southern portion of the Property to service future buildings. Historical groundwater sampling results indicate that petroleum impacts (LNAPL and benzene concentrations greater than the ES) attributed to the former petroleum releases associated with the former Amoco BRRTS cases are present on the south end of the Property. However, impacted groundwater and/or LNAPL is not anticipated to be encountered as part of construction due to the depth of planned excavations and historical groundwater depths in this area (i.e., the depths of proposed cuts are shallower than the groundwater table).

PAH and RCRA metal impacts to soils being disturbed on the southern portion of the Property as part of utility installation are limited to the black, granular fill unit encountered in the upper 2.5 feet, and are underlain by native clays with no NR 720 RCL exceedances. As discussed in Stantec (2022c), soil excavated as part of utility installation will be replaced at a depth no greater than which it was excavated.

Due to the nature of documented soil and groundwater impacts, combined with the elevations of proposed utilities, it does not appear that contamination is migrating along existing utilities adjacent to the Site. The installation of the new, proposed utilities is not expected to exacerbate contaminant transport. Proposed utilities are illustrated in *Attachment A* of Stantec (2022c).

6 CONCLUSIONS

6.1 Geologic Characteristics

Surface and Subsurface Conditions - North End of Property: Surface conditions of the dock encompassing the north end of the Property largely consisted of concrete panels. Underlying these surface materials was a one to two feet of fill containing sands, gravels, and/or black granular pieces of anthropogenic materials (ex. coal pieces), underlain by red-brown, non-native uniform sand, which was presumably used as the base of the imported material to the Property to construct the dock circa 1907. Apparent native silts/sands on the north end of the Property were encountered between eight ft bgs on the south end of the dock, to 12 ft bgs on the north end of the dock.

Surface and Subsurface Conditions – South End of Property: Surface conditions for the south end of the Property largely consisted of wooded vegetation and wetland areas, with one gravel/concrete road for vehicle access. Underlying these surface materials was a black, granular anthropogenic fill unit containing coal and/or brick pieces and ranging from 0.25 to 12 feet thick (with a median/typical thickness of 2.5 feet). Native soils were generally comprised of red-brown clay (and, to a lesser extent, silt and sand lenses), which was encountered at between 0 to 8 ft bgs.

Sitewide Hydrogeology: The depth to groundwater varies from near surface on the north end of the Site, to 15 feet below the ground surface to the south. Over most of the Site the groundwater gradient is north-northwest towards St. Louis Bay and discharges to the bay or adjoining dock slip.

Bedrock was not encountered as part of this investigation, as it is present greater than 100 ft bgs at the Property.

6.2 Degree and Extent of Contaminated Media

Soil: PAHs and RCRA metals are present in fill at concentrations greater than direct contact standards in surficial soils across the Property. Native clays present beneath this unit were found to have no PAH or RCRA metal constituent detections at concentrations greater than NR720 RCLs. Therefore, the source of these impacts is attributed to the ubiquitous black granular fill unit, which is present at the surface of the Property to an average depth of three ft bgs. PVOC constituents were detected in soil at concentrations greater than the NR 720 groundwater protection RCL in two sample locations (STN2 and STN16). These PVOC detections in soil are attributed to previously documented petroleum releases, which are currently being investigated in association with open east- and south-adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331). There were no other VOC contributions to anthropogenic fill or native soils screened/sampled elsewhere on the Property, and no VOC constituents were detected in fill or native soils as part of Stantec (2021). The horizontal and vertical extents of identified impacts to fill/soil have been sufficiently defined. Therefore, no further soil investigation appears to be warranted.

Groundwater: Groundwater was not sampled by Stantec as part of this SI but has been sampled by others as recently as October 2021 in association with open east- and south-adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331), including 40 monitoring wells on the target Property (Antea, 2022). In May/October 2021, the LNAPL finger plume on the southern portion of the

Property originating from the Amoco BRRTS cases was found to have a product thickness from 0.02 to 7.27 feet. Dissolved PVOC constituents were detected at a concentration greater than the NR 140 ES in monitoring wells on the south end of Property near the existing LNAPL plume, and in the central portion of the Property near the Murphy Marine Terminal BRRTS case (03-16-000320). Based on groundwater samples collected during previous site investigation activities (Barr, 2022; Delta, 2003), it does not appear that near surface fill containing RCRA metals and PAHs is having a significant impact on groundwater quality on the Site.

The horizontal and vertical extents of contamination in groundwater from these cases is well-documented and the LNAPL finger plume appears to be stable or receding. The PVOC and LNAPL detections in groundwater are attributed to previously documented petroleum releases, which are currently being investigated in association with open east- and south-adjoining Amoco BRRTS cases (02-16-297979, 02-16-117873 and 02-16-000331) and the Murphy Marine Terminal BRRTS case in the central portion of the Property (03-16-000320). Since these documented groundwater impacts resulted from a documented offsite source/release, no groundwater investigation appears to be warranted as part of the BRRTS cases associated with this SI (02-16-589248).

Future Engineering Controls: The cost to remove and replace the sitewide granular fill unit and associated impacts is not economically viable. As described in the Stantec (2022c) *Materials Management Plan*, the proposed industrial redevelopment of the Property includes construction of engineered barriers, which will be maintained with a continuing obligation(s). The engineered barriers will prevent direct contact with residual fill/soil impacts, will prevent infiltration/potential leaching of residual soil impacts to groundwater, and will allow existing fill/soil to be managed onsite for beneficial reuse.

Due to the presence of benzene in groundwater at concentrations greater than health-based standards, post-construction sub-slab vapor sampling will be performed following the construction of future buildings at the Property to evaluate the risk for vapor intrusion and determine whether the installation of a SSD is warranted.

7 REFERENCES

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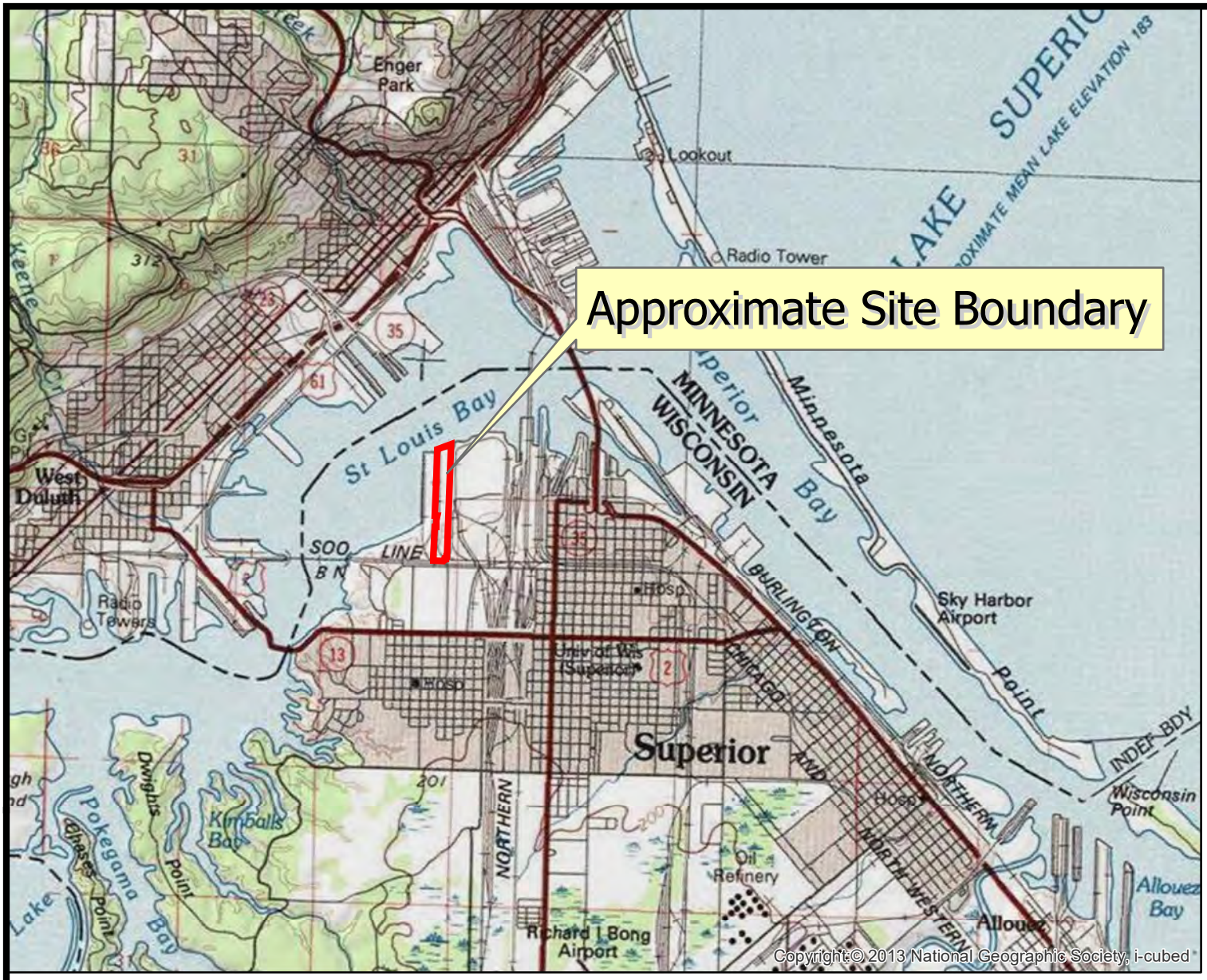
FIGURES



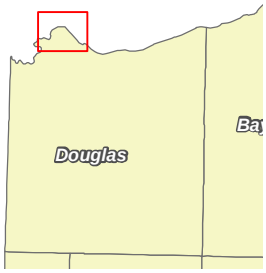
N

1 inch = 6,000 feet

Feet

0 6,000

The information on this map has been compiled by Stantec staff from a variety of sources and is subject to change without notice. Stantec makes no representations or warranties, express or implied, as to accuracy, completeness,timeliness, or rights to the use of such information.



County Location

State Location

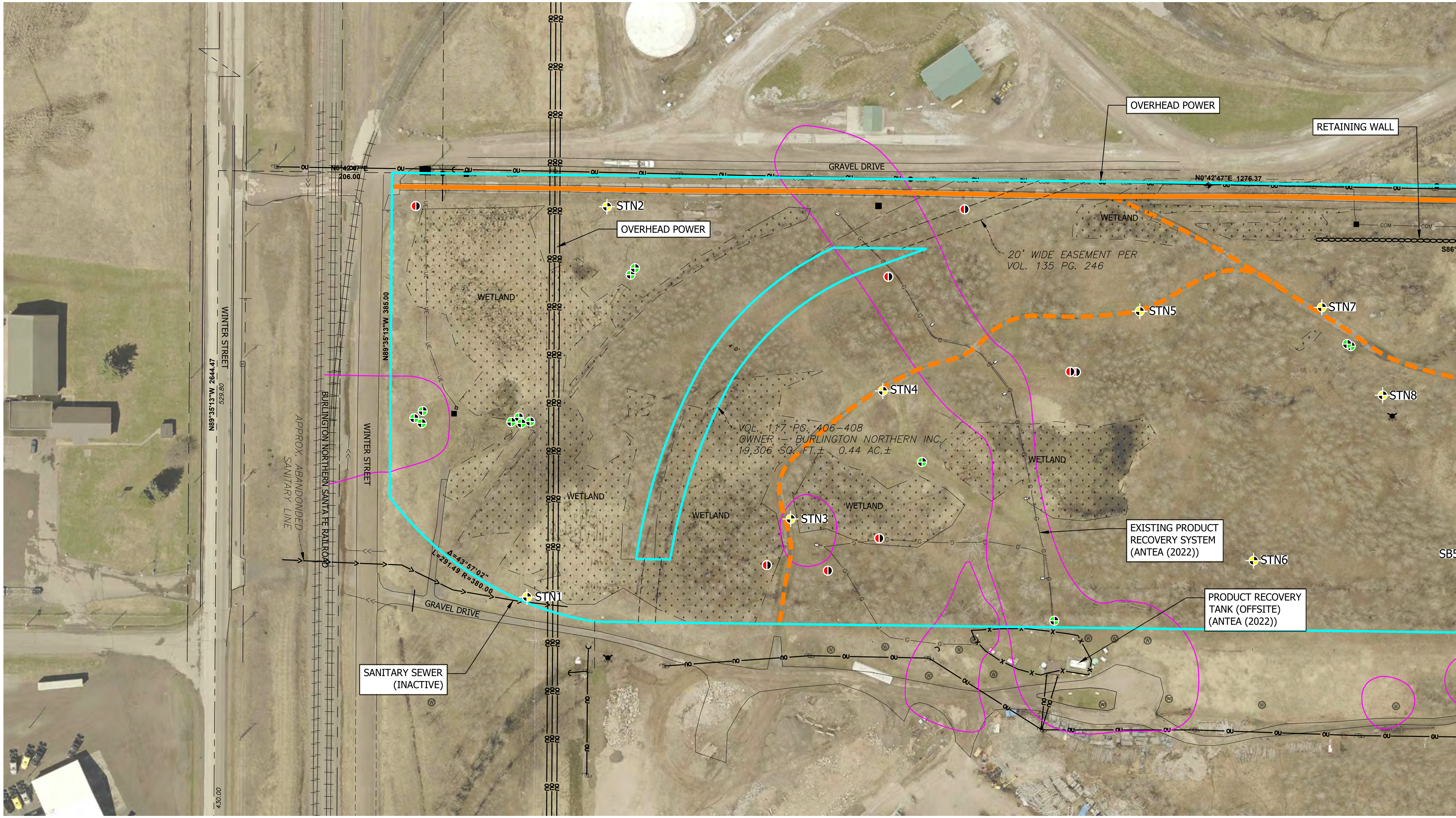
AERIAL IMAGERY AND PARCEL DATA SOURCE:
ESRI Mapping Center World Imagery Layer - USGS TOPO QUAD

Site Location & Local Topography

C. REISS DOCK
ST. LOUIS BAY, SUPERIOR, WI

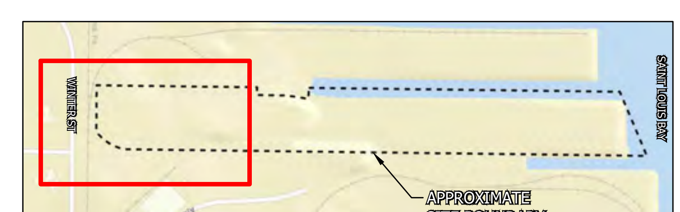
Stantec

DATE: 2022-06-06
Project Path: V:\1937\active\193707141\03_data\gis_cad\gis\mxds\193707141_FIG1.mxd



LEGEND

- PROPERTY BOUNDARY
- EXISTING ACCESS ROAD (CONCRETE)
- EXISTING ACCESS ROAD (UNPAVED)
- STANTEC (2022a,b) BOREHOLE LOCATIONS
- ANTEA (2022) MONITORING WELLS TO REMAIN (9/2022)
- ANTEA (2022) MONITORING WELLS TO BE ABANDONED (9/2022)
- ANTEA (2022) EXTENT OF LNAPL (1/2022)



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REFERENCE

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SITE LAYOUT AND STANTEC (2022A,B) BOREHOLE LOCATIONS

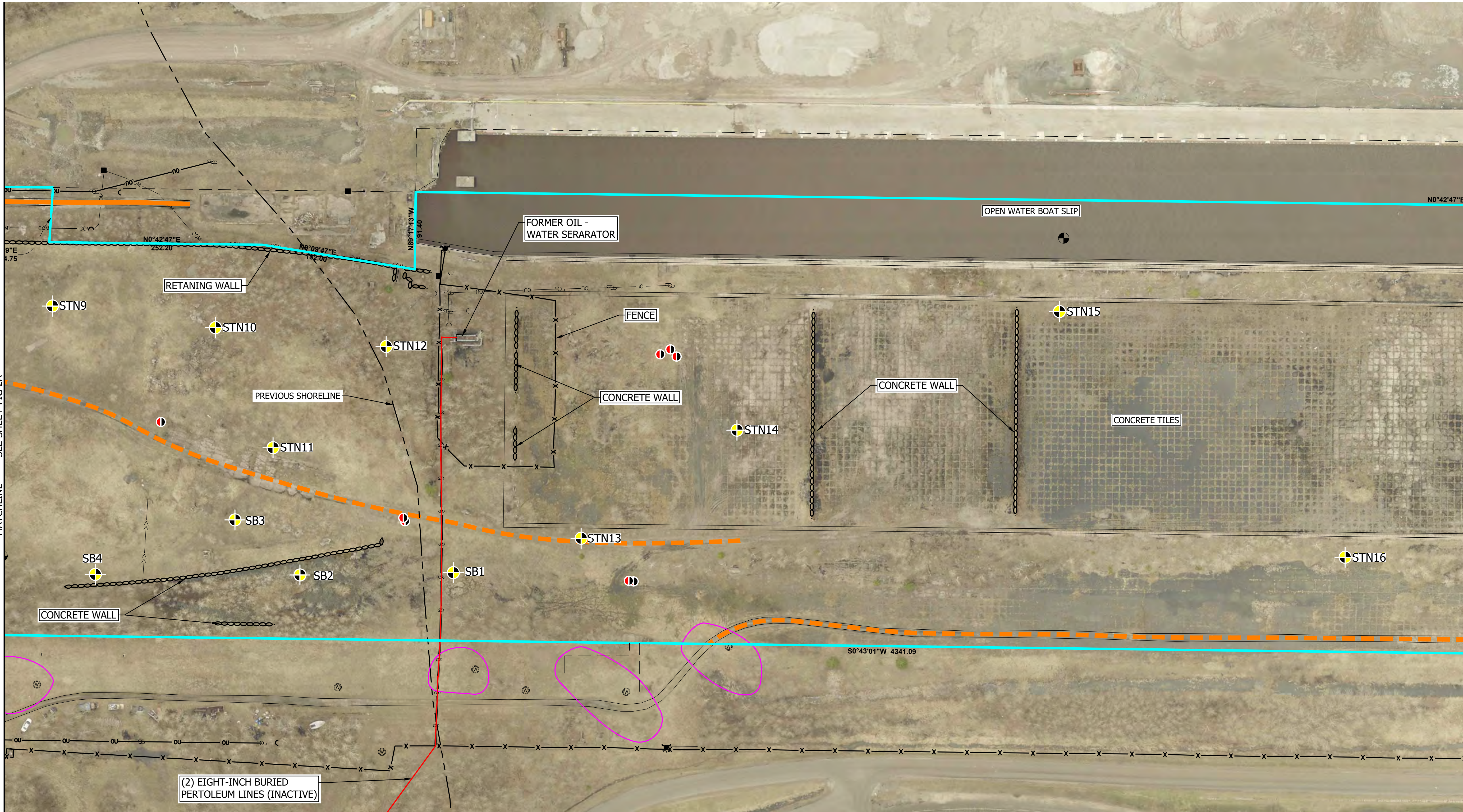
C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE: July 7, 2022

NO	REVISION	DATE

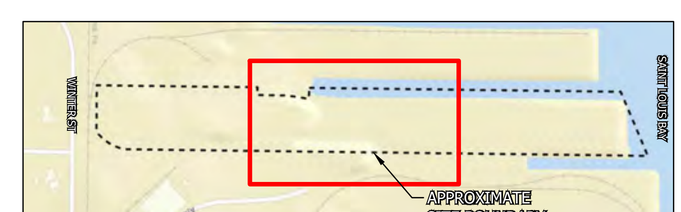
SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 2A



LEGEND

- PROPERTY BOUNDARY
- EXISTING ACCESS ROAD (CONCRETE)
- EXISTING ACCESS ROAD (UNPAVED)
- STANTEC (2022a,b) BOREHOLE LOCATIONS
- ANTEA (2022) MONITORING WELLS TO REMAIN (9/2022)
- ANTEA (2022) MONITORING WELLS TO BE ABANDONED (9/2022)
- ANTEA (2022) EXTENT OF LNAPL (1/2022)



0 60' 120'

REFERENCE
Antea (2022). 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, WI, February 8, 2022. BRRTS # 02-16-297979, 02-16-117873 and 02-16-000331.

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SITE LAYOUT AND STANTEC (2022A,B) BOREHOLE LOCATIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE	
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SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 2B

LEGEND

- PROPERTY BOUNDARY
- EXISTING ACCESS ROAD (CONCRETE)
- EXISTING ACCESS ROAD (UNPAVED)
- STANTEC (2022a,b) BOREHOLE LOCATIONS
- ANTEA (2022) MONITORING WELLS TO REMAIN (9/2022)
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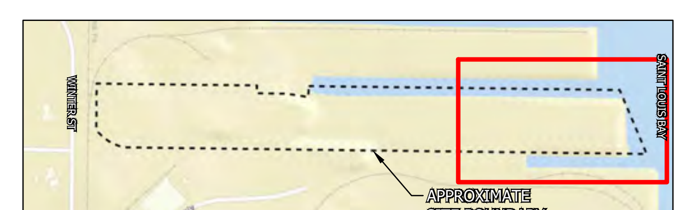

N

0 60' 120'

REFERENCE
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SITE LAYOUT AND STANTEC (2022A,B) BOREHOLE LOCATIONS

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

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NO	REVISION	DATE

SHEET NUMBER
FIG 2C

Plot Date: 07/07/2022 - 3:14pm

Figure 3 - Bureau for Remediation and Redevelopment Tracking System Case Summary

Legend

- Open Site
- Closed Site
- Continuing Obligations Apply
- Impacted Another Property(ies)
- Onsite or Adjoining Case of Interest
- Approximate Property Boundary

0.2 0 0.2 Miles

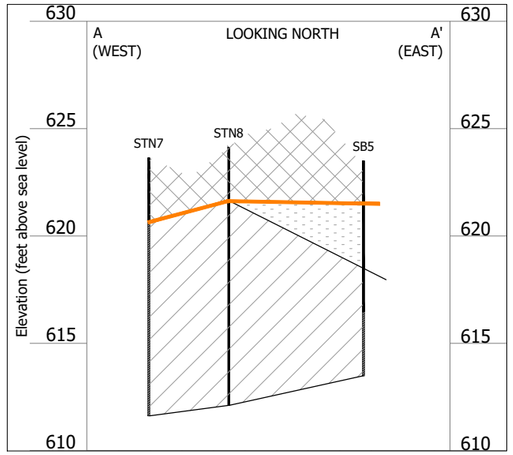
1: 7,920

NAD_1983_HARN_Wisconsin_TM

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

Note: Not all sites are mapped.

Notes



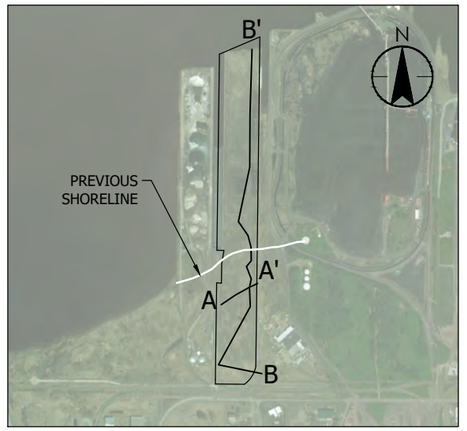


Figure No.

4 - Cross Sections

Title

Generalized Geologic Cross Sections

Client/Project

C. Reiss Company, LLC
C. Reiss Dock
Site Investigation Report

Project Location
T49N, R14W, S09, S16
C. of Superior,
Douglas Co., WI

193707141
Prepared by AJR on 2022-07-08
Technical Review by WMC on 2022-07-08
Independent Review by BSL on 2020-07-08

Legend

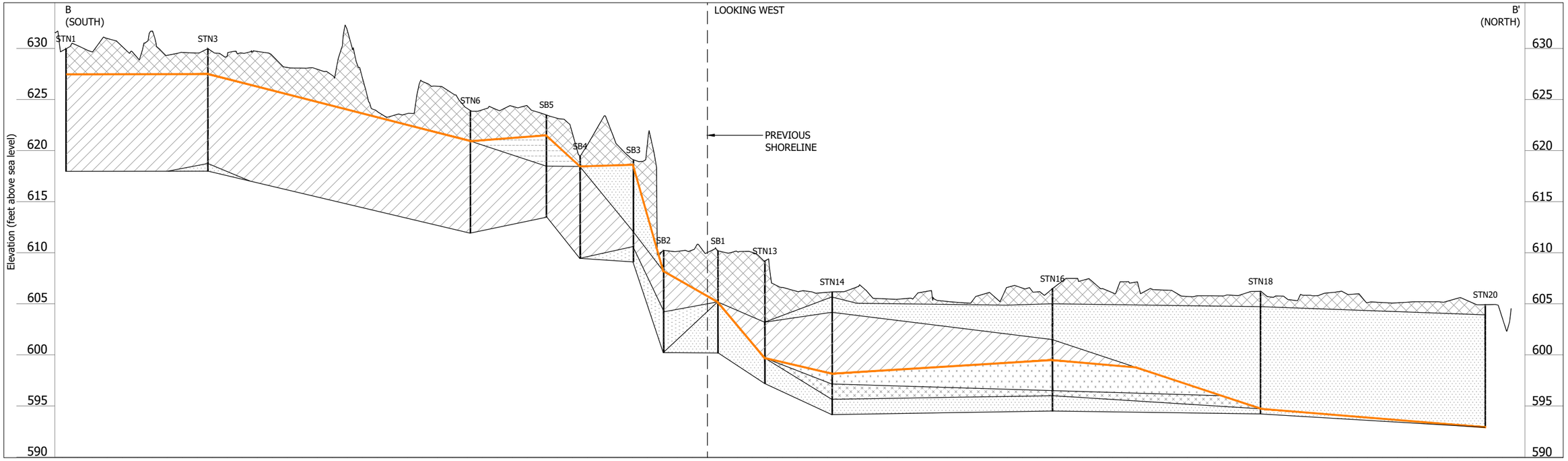
SB# Soil Boring (Stantec December 2021)
STN# Soil Boring (Stantec May 2022)

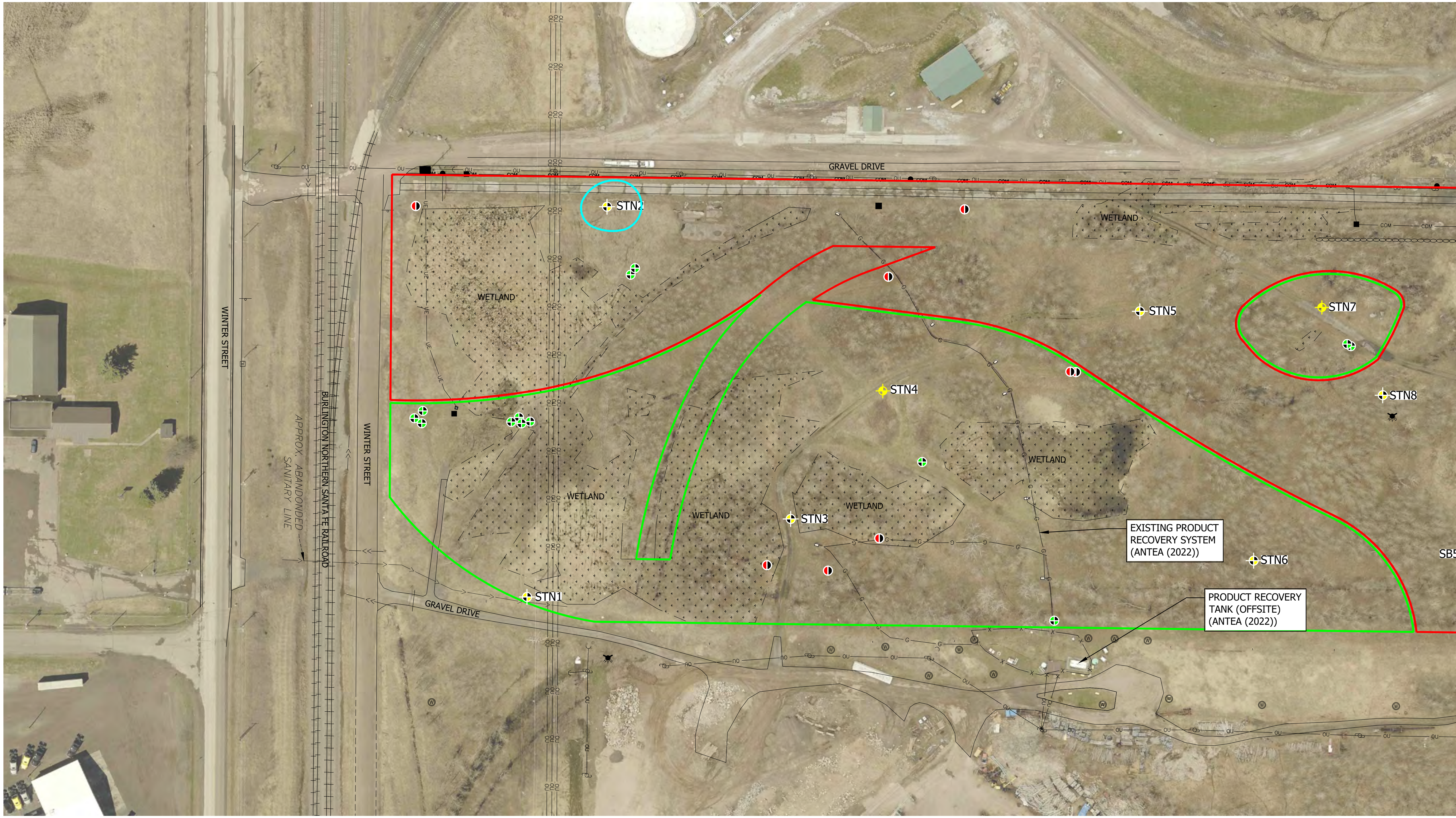
0 170 340
HORIZONTAL

0 5' 10'
VERTICAL

Black Fill
Clay
Sand
Clayey Silt
Silty Sand
Silt
Apparent Fill/Native Interface

Stantec





ABBREVIATIONS:
GW = Groundwater
IDC = Industrial Direct Contact
NIDC = Non-Industrial Direct Contact
PAH = Polycyclic Aromatic Hydrocarbon
PVOC = Petroleum Volatile Organic Compound
RCL = Residual Contaminant Level
RCRA = Resource Conservation and Recovery Act

LEGEND

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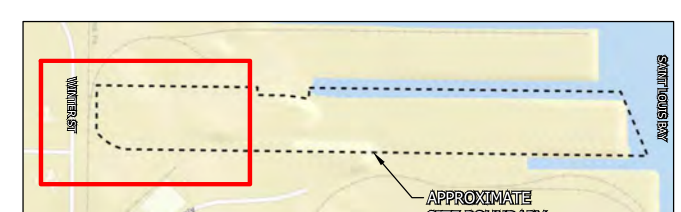
- ALL SOIL DETECTIONS <NR720 NIDC RCLs
- PVOC DETECTIONS >GW PATHWAY RCL
- PAH AND/OR RCRA METAL DETECTIONS >IDC RCLs IN FILL



0 60' 120'

N

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STANTEC (2022A,B) SOIL QUALITY

C. REISS DOCK
C. REISS COMPANY, LLC
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
July 8, 2022

NO	REVISION	DATE

SURVEY	BURSE
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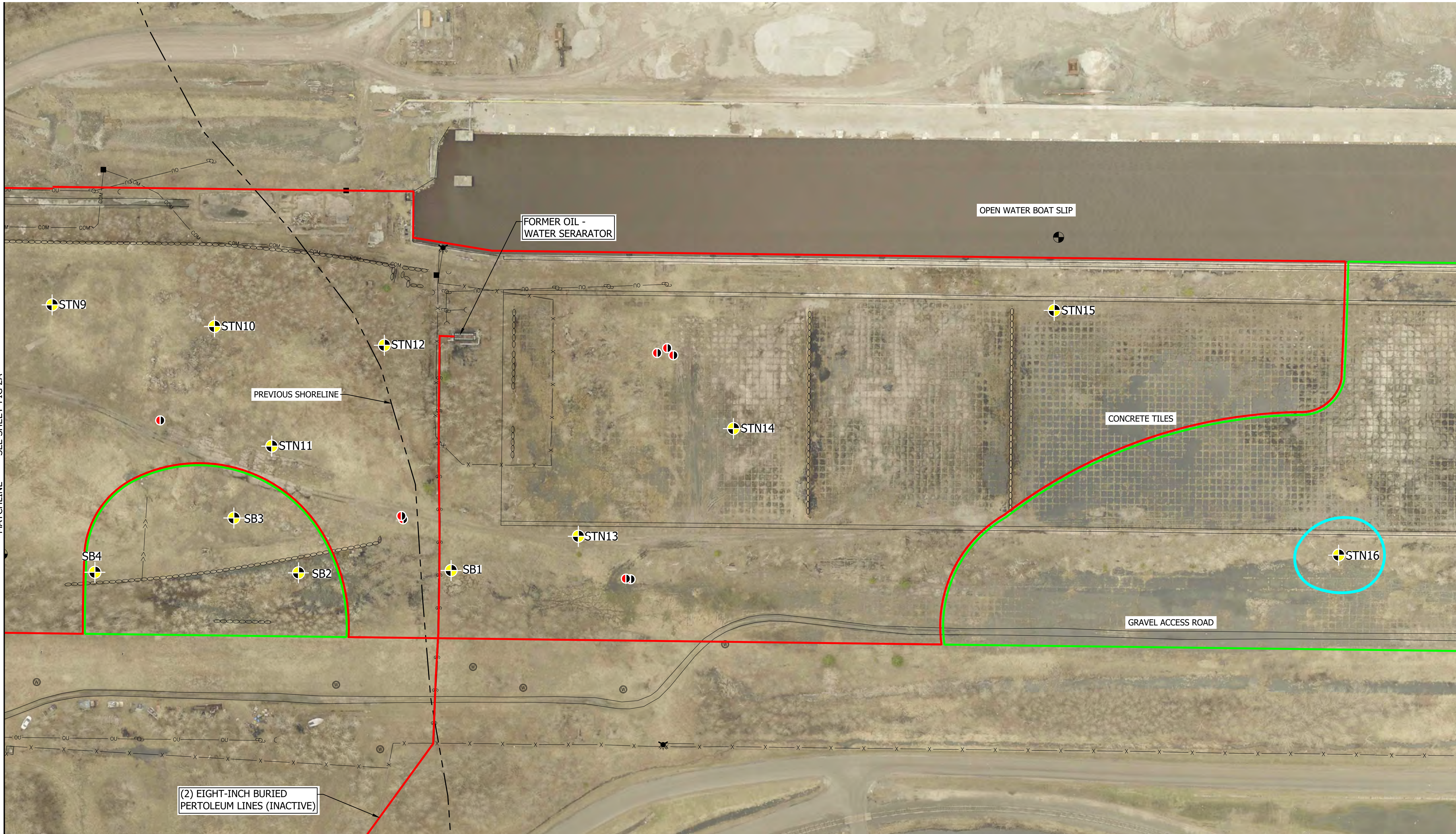
PROJ. NO.	193707141

SHEET NUMBER
FIG 5A

Plot Date: 07/08/2022 - 10:34am

MATCHLINE
SEE SHEET FIG 2A



MATCHLINE
SEE SHEET FIG 2C

LEGEND

ABBREVIATIONS:
GW = Groundwater
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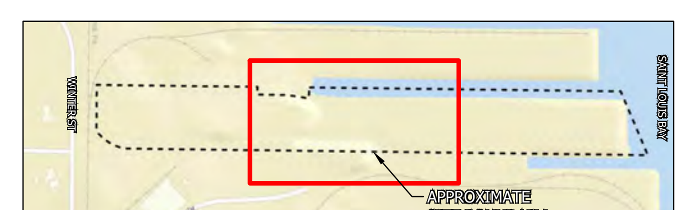

N
0 60' 120'

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STANTEC (2022A,B) SOIL QUALITY

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DATE OF ISSUANCE	
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SURVEY	BURSE
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DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 5B

Plot Date: 07/08/2022 - 10:35am
Drawing name: V:\1937\active\193707141\03_data\gis_cad\cad\dwg\SHEETS\Exhibits\193707141FIG5.dwg
Xrefs:, TB-34x22-MEQ, 193707141_XSXT, 193707141_XSNO, 193707141_XSXI, 193707141_XSPL, 193707141-XA1NA, 193707141-XB1NA, 201275_Mech Overall Layout, 201075-RAIL LINEWORK

LEGEND

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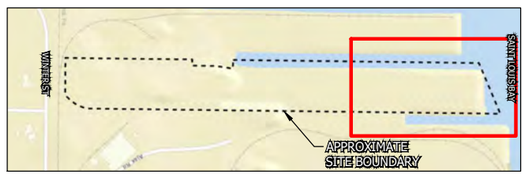

N

0 60' 120'

STANTEC (2022A,B) SOIL QUALITY

C. REISS DOCK
C. REISS COMPANY, LLC.
ST. LOUIS BAY, SURPERIOR, WI

DATE OF ISSUANCE
July 8, 2022

NO	REVISION	DATE

SURVEY	BURSE
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER
FIG 5C

Stantec
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Mequon, WI 53092
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Plot Date: 07/08/2022 - 10:34am
Drawing Name: W:\193707141\03_data\gis_cad\cad_dwg\SHEETS\Exhibits\193707141FIG5.dwg
Xrefs: TB-3422-MEQ, 193707141_XSX1, 193707141_XSNO, 193707141_XSX1, 193707141_XSFL, 193707141-XA1NA, 193707141-XB1NA, 201275_Mtech Overall Layout, 201075-RAIL LINEWORK

TABLES

Table 1: Soil Quality Summary, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN1		STN2			STN3		STN4	
Sample Date						5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022	5/5/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN1 0.25-2.5	STN1 4.5-6.5	STN2 0-2.5	FD1	STN2 4-6	STN3 0.25-2.5	STN3 2.5-4	STN4 0.5-2.5	STN4 4-6
Laboratory Sample ID						500-216192-1	500-216192-2	500-216192-3	500-216192-4	500-216192-5	500-216192-6	500-216192-7	500-216192-8	500-216192-9
Sample Type						Soil	Soil	Soil	Field Duplicate	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						7.5		7			7		7	
General Soil Type						SILTY CLAY	CLAY	BLACK FILL	BLACK FILL	CLAY	SAND	CLAY	BLACK FILL	CLAY
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	4.4 F1	4.1	5.7	-	3.5	3.2	2.2	5.2	2.9
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	100	160	89	-	200	55	160	100	180
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	<0.046	<0.045	0.14 J B	-	<0.039	<0.036	<0.045	<0.043	<0.041
Chromium	mg/kg	100,000	100,000	360,000	44	37 B F1	36 B	100 B	-	32 B	23 B	40 B	15 B	46 B
Lead	mg/kg	800	400	**51.6*** [27]	51.6	28 F1 F2	10	30	-	11	6.8	8.6	47	10
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.029	0.024	0.022	-	0.022	0.018	0.030	**0.40**	0.025
Selenium	mg/kg	5,840	391	0.52	n/v	<0.75 F1	<0.74	**0.79 J**	-	<0.64	<0.60	<0.73	<0.70	<0.67
Silver	mg/kg	5,840	391	0.849	n/v	0.43 J F1	0.60 J	<0.69	-	0.64	0.16 J	0.59 J	<0.15	0.55 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	**26**	**50**	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	<27	<27	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	<28	<28	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	56	42	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	35 J	<27	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	<25	<25	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	180	150	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	39 J	<29	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	160	150	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	78	68 J	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	<27	<26	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	280	230	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	<32	<32	940 J	-	<32	<28	<31	<33	<32
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<28	<28	<130	-	<28	<25	<28	<29	<28
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	<54	<54	2,600	-	<53	<47	<53	<55	<53
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	97 J	<22	**2,800**	-	<22	<19	<21	<22	<21
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	92 J	<32	**2,300**	-	<32	<28	<31	44 J	<32
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	85 J	<35	**2,900**	-	<34	<30	<34	80 J	<34
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	55 J	<23	1,900	-	<23	<20	<23	46 J	<23
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	43 J	<28	1,000	-	<28	<25	<28	41 J	<28
Chrysene	µg/kg	2,110,000	115,000	144	n/v	96 J	<49	**3,100**	-	<48	<42	<48	130 J	<48
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	<38	<38	**460 J**	-	<38	<34	<38	<39	<38
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	140 J	<23	6,900	-	<23	<20	<23	96 J	<23
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	<26	<26	1,200	-	<25	<22	<25	<26	<25
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	48 J	<27	**1,300**	-	<27	<23	<26	<28	<26
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	<73	<73	<350	-	<72	<64	<71	<75	<72
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	<43	<44	380 J	-	<43	<38	<43	<45	<43
Naphthalene	µg/kg	24,100	5,520	658	n/v	<28	<28	<130	-	<28	<25	<28	<29	<28
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	120 J	<32	9,800	-	<32	<28	<31	74 J	<32
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	130 J	<26	6,500	-	<25	<22	<25	96 J	<25

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 1: Soil Quality Summary, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN5	STN6		STN7		STN8		STN9	
Sample Date						5/5/2022	5/4/2022	5/4/2022	5/5/2022	5/5/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN5 2-4	STN6 0-2	STN6 8-10	STN7 1.5-3	STN7 4-6	STN8 0-2.5	STN8 6-8	STN9 1-2.5	STN9 4.5-6.5
Laboratory Sample ID						500-216192-10	500-216192-11	500-216192-12	500-216192-13	500-216192-14	500-216192-15	500-216192-16	500-216192-17	500-216192-18
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						5	11		11		11		9	
General Soil Type						BLACK FILL	BLACK FILL	CLAY	BLACK FILL	CLAY	BLACK FILL	CLAY	BLACK FILL	SILTY SAND
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	14	4.8	2.9	6.1	2.9	9.5	2.7	5.3	2.1
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	220	100	160	130	180	140	160	86	44
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	1.5 B	0.23 J B	<0.042	0.32 B	<0.043	0.23 J B	<0.040	0.14 J B	0.064 J B
Chromium	mg/kg	100,000	100,000	360,000	44	12 B	9.1 B	39 B	18 B	39 B	8.5 B	39 B	17 B	10 B
Lead	mg/kg	800	400	**51.6*** [27]	51.6	800	24	9.9	15	10	46	9.3	34	3.3
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.14	0.036	0.025	0.032	0.022	0.047	0.020	0.085	0.0092 J
Selenium	mg/kg	5,840	391	0.52	n/v	1.6	<0.82	<0.69	1.0	<0.70	1.6	<0.66	<0.64	<0.64
Silver	mg/kg	5,840	391	0.849	n/v	0.43 J	0.18 J	0.59	0.36 J	0.85	<0.16	0.51 J	0.25 J	0.19 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	-	-	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	-	-	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	2,100 J	<370	<33	160 J	<32	<6,300	<32	30,000	<29
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<520	<320	<29	49 J	<28	<5,500	<28	8,500 J	<26
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	5,200	<610	<55	470	<54	<11,000	<53	52,000	<49
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	12,000	1,000 J	<22	1,200	<22	<4,300	<22	75,000	<20
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	11,000	1,200 J	<33	1,000	<32 *	<6,300 *	<32 *	74,000 *	<29 *
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	12,000	1,600 J	<35	1,300	<35 *	<6,800 *	<34 *	77,000 *	<31 *
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	6,800	1,300 J	<24	770	<23	8,800 J	<23	56,000	<21
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	7,700	690 J	<29	690	<28	<5,500	<28	40,000	<26
Chrysene	µg/kg	2,110,000	115,000	144	n/v	14,000	1,700 J	<50	1,500	<49	<9,600	<48	87,000	<44
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	2,200 J	<440	<39	240	<39	<7,600	<38	16,000	<35
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	25,000	1,700 J	<24	2,300	<23	<4,500	<23	190,000	<21
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	2,300 J	<290	<26	170 J	<26	<5,000	<25	28,000	<23
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	5,900	900 J	<27	690	<27	<5,300	<27	48,000	<24
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	<1,300	<830	<75	110 J	<73	<14,000	<73	11,000 J	<66
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	810 J	530 J	<44	160 J	<44	<8,600	<43	11,000	<40
Naphthalene	µg/kg	24,100	5,520	658	n/v	<520	480 J	<29	110 J	<28	<5,500	<28	20,000	<26
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	23,000	1,600 J	<33	2,000	<32	8,400 J	<32	250,000	<29
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	21,000	1,600 J	<26	2,300	<26	5,900 J	<25	200,000	<23

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 1: Soil Quality Summary, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN10		STN11		STN12		STN13	STN14	STN15
Sample Date						5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN10 0-2.25	STN10 8-9.5	STN11 0-2	STN11 10.5-12	STN12 3.5-4.5	STN12 8-10	STN13 2.5-3.5	STN14 0-2	STN15 0-1
Laboratory Sample ID						500-216192-19	500-216192-20	500-216192-21	500-216192-22	500-216192-23	500-216192-24	500-216192-25	500-216192-26	500-216192-27
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Approx. Depth to Groundwater (ft bgs)						9.5		(Not encountered)		(Not encountered)		3.5	0.1 (Surface)	1
General Soil Type						BLACK FILL	CLAYEY SAND	BLACK FILL	SILTY CLAY	BLACK FILL	CLAY	BLACK FILL	SAND	FILL/CONC.
Detected Resource Conservation and Recovery Act Metals														
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	18	1.8	4.5	3.8 F1	3.9	3.2	6.9	10	2.0
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	81	42	65	83	140	130	150	130	46
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	0.26 B	0.050 J B	<0.039	0.11 J B	<0.043	<0.045	0.14 J B	0.095 J B	0.043 J B
Chromium	mg/kg	100,000	100,000	360,000	44	16 B	17 B	17 B	18	34	33	7.9	5.6	12
Lead	mg/kg	800	400	**51.6*** [27]	51.6	33	3.4	15	6.1	11	8.4	29	8.1	4.2
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.23	0.011 J	0.043	0.024	0.038	0.024	0.036	0.021	0.012 J
Selenium	mg/kg	5,840	391	0.52	n/v	<0.71	<0.63	<0.64	<0.66 F1	<0.70	<0.73	<0.64	1.6	<0.65
Silver	mg/kg	5,840	391	0.849	n/v	<0.16	0.21 J	0.25 J	0.38 J F1	0.58 J	0.52 J	0.20 J	0.16 J	0.17 J
Detected Volatile Organic Compounds														
Benzene	µg/kg	7,070	1,600	5.1	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	-	-	-	-	-	-	-	-	-
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	-	-	-	-	-	-	-	-	-
Toluene	µg/kg	818,000	818,000	1,107	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	-	-	-	-	-	-	-	-	-
Detected Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	67,000	<29	<1,400	<30	1,800 J	<33	<1,500	<32	<140
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	22,000	<25	<1,300	<26	<280	<29	<1,300	<28	960
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	130,000	<48	<2,400	<50	3,600	<55	<2,500	<54	640 J
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	190,000	<20	3,600 J	<20	7,200	<22	7,000 J	<22	2,800
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	170,000 *	<29 *	4,600 J *	<30 *	7,200 *	<33 *	10,000 *	<32 *	2,200 *
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	200,000 *	<31 *	4,900 J *	<32 *	7,600 *	<36 *	7,200 J *	71 J *	2,800 *
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	130,000	<21	4,600 J	<21	5,500	<24	9,200 J	<23	1,300
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	100,000	<25	2,400 J	<26	3,200	<29	3,600 J	<28	1,300
Chrysene	µg/kg	2,110,000	115,000	144	n/v	200,000	<44	5,700 J	<45	8,500	<50	9,700 J	<48	2,800
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	31,000	<35	<1,700	<35	1,300 J	<39	1,900 J	<38	450 J
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	510,000	72 J	6,000 J	<21	17,000	<24	9,000 J	70 J	5,700
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	77,000	<23	<1,100	<24	1,700 J	<26	<1,200	<25	260 J
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	110,000	<24	2,600 J	<25	4,200	<28	4,400 J	34 J	1,400
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	18,000 J	<66	<3,300	<67	<720	<75	<3,400	<73	<320
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	28,000	<39	<1,900	<40	470 J	<45	<2,000	<43	<190
Naphthalene	µg/kg	24,100	5,520	658	n/v	65,000	<25	<1,300	<26	890 J	<29	<1,300	<28	320 J
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	540,000	77 J	4,300 J	<30	19,000	<33	7,200 J	58 J	3,800
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	460,000	77 J	6,500 J	<24	18,000	<26	11,000	75 J	5,100

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 1: Soil Quality Summary, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location						STN16		STN17	STN18	STN19	STN20		Trip Blank
Sample Date						5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	5/4/2022	-
Sample ID, Sample Depth (ft bgs)	Units	Wisconsin RCL Direct Contact Industrial	Wisconsin RCL Direct Contact Non-Industrial	Wisconsin RCL Soil to Groundwater	Wisconsin SBTV	STN16 0-1.5	STN16 3.5-5	STN17 0-1.25	STN18 0-1.5	STN19 0-1	STN20 0-1	STN20 1-3	Trip Blank
Laboratory Sample ID						500-216192-28	500-216192-29	500-216192-30	500-216192-31	500-216192-32	500-216192-33	500-216192-34	500-216192-35
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Trip Blank
Approx. Depth to Groundwater (ft bgs)						1.5		1.25	1.5	1	3		-
General Soil Type						BLACK FILL	SAND	FILL/GRAVEL	BLACK FILL	FILL/GRAVEL	FILL/TOPSOIL	SAND	-
Detected Resource Conservation and Recovery Act Metals													
Arsenic	mg/kg	**8.3*** [3]	**8.3*** [0.677]	**8.3*** [0.584]	8.3	7.0	1.9	3.2	**9.4**	4.6	**52**	**31**	-
Barium	mg/kg	100,000	15,300	**364*** [164.8]	364	130	46	62	62	47	65	10	-
Cadmium	mg/kg	985	71.1	**1*** [0.752]	1	0.12 J B	0.042 J B	0.070 J B	<0.041	<0.035	0.073 J B	<0.041	-
Chromium	mg/kg	100,000	100,000	360,000	44	3.5	14	13	7.7	11	8.0	4.9	-
Lead	mg/kg	800	400	**51.6*** [27]	51.6	18	3.5	7.2	31	6.0	12	1.5	-
Mercury	mg/kg	3.13	3.13	0.208	n/v	0.060	0.010 J	0.011 J	0.046	0.013 J	0.019	<0.0062	-
Selenium	mg/kg	5,840	391	0.52	n/v	**1.6**	<0.59	<0.66	<0.67	<0.56	**3.8**	**1.7**	-
Silver	mg/kg	5,840	391	0.849	n/v	0.25 J	0.23 J	0.29 J	0.16 J	0.27 J	0.14 J	<0.15	-
Detected Volatile Organic Compounds													
Benzene	µg/kg	7,070	1,600	5.1	n/v	**170**	<20	-	-	-	-	-	<7.3
Butylbenzene, n-	µg/kg	108,000	108,000	n/v	n/v	99	<54	-	-	-	-	-	<19
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	145,000	145,000	n/v	n/v	62 J	210	-	-	-	-	-	<20
Ethylbenzene	µg/kg	35,400	8,020	1,570	n/v	200	<25	-	-	-	-	-	<9.2
Isopropylbenzene	µg/kg	268,000	268,000	n/v	n/v	110	<53	-	-	-	-	-	<19
Isopropyltoluene, p- (Cymene)	µg/kg	162,000	162,000	n/v	n/v	47 J	560	-	-	-	-	-	<18
Naphthalene	µg/kg	24,100	5,520	658	n/v	530	<46	-	-	-	-	-	<17
Propylbenzene, n-	µg/kg	264,000	264,000	n/v	n/v	180	<57	-	-	-	-	-	<21
Toluene	µg/kg	818,000	818,000	1,107	n/v	640	<20	-	-	-	-	-	<7.4
Trimethylbenzene, 1,2,4-	µg/kg	219,000	219,000	1,380	n/v	430	**760**	-	-	-	-	-	<18
Trimethylbenzene, 1,3,5-	µg/kg	182,000	182,000		n/v	120	**1,900**	-	-	-	-	-	<19
Xylenes, Total	µg/kg	260,000	260,000	3,960	n/v	1,100	110	-	-	-	-	-	<11
Detected Polycyclic Aromatic Hydrocarbons													
Acenaphthene	µg/kg	45,200,000	3,590,000	n/v	n/v	230	1,400	<140	<29	<27	<31	<29	-
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<27	<26	370 J	<26	86 J	<27	<26	-
Anthracene	µg/kg	100,000,000	17,900,000	196,949	n/v	420	520	240 J	94 J	95 J	<52	<49	-
Benzo(a)anthracene	µg/kg	20,800	1,140	n/v	n/v	900	<20	1,000	<20	360	<21	<20	-
Benzo(a)pyrene	µg/kg	2,110	115	470	n/v	**760 ***	<29 *	**850 J ***	**210 ***	**330 ***	<31 *	<29	-
Benzo(b)fluoranthene	µg/kg	21,100	1,150	478	n/v	**1,300 ***	<32 *	**1,300 K ***	300 *	390 *	<33 *	<32	-
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	580	<21	530 J	200	180 J	<22	<21	-
Benzo(k)fluoranthene	µg/kg	211,000	11,500	n/v	n/v	440	<26	<130	84 J	220	<27	<26	-
Chrysene	µg/kg	2,110,000	115,000	144	n/v	**1,300**	<44	**1,100**	**330**	**420**	<47	<44	-
Dibenzo(a,h)anthracene	µg/kg	2,110	115	n/v	n/v	**200 J**	<35	**200 J**	61 J	65 J	<37	<35	-
Fluoranthene	µg/kg	30,100,000	2,390,000	88,878	n/v	2,200	210	2,200	330	780	32 J	<21	-
Fluorene	µg/kg	30,100,000	2,390,000	14,830	n/v	<25	2,500	<110	<24	<22	<25	<23	-
Indeno(1,2,3-cd)pyrene	µg/kg	21,100	1,150	n/v	n/v	590	<25	520 J	140 J	200	<26	<25	-
Methylnaphthalene, 1-	µg/kg	72,700	17,600	n/v	n/v	740	8,000	<320	890	570	98 J	<67	-
Methylnaphthalene, 2-	µg/kg	3,010,000	239,000	n/v	n/v	1,400	6,200	<190	970	660	120 J	<40	-
Naphthalene	µg/kg	24,100	5,520	658	n/v	**770**	**870**	230 J	**750**	480	88 J	<26	-
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	2,400	6,100	1,800	880	740	100 J	<29	-
Pyrene	µg/kg	22,600,000	1,790,000	54,546	n/v	1,800	410	1,800	330	610	34 J	<23	-

Notes:

Wisconsin SBTV	Wisconsin Soil Background Threshold Value
Wisconsin RCL	Wisconsin Soil Residual Contaminant Levels (Ch. NR 720 WAC, 2018)
	Concentration exceeds Wisconsin Direct Contact Industrial RCL
	Concentration exceeds Wisconsin Direct Contact Non-Industrial RCL
	Concentration exceeds Wisconsin Soil to Groundwater RCL
15.2	Measured concentration did not exceed the indicated standard
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit
n/v	No standard/guideline value
-	Parameter not analyzed
*	Laboratory control sample and/or duplicate relative percent difference exceeds control limits
B	Coumpound was found in the laboratory blank and sample
F1	Matrix spike and/or duplicate recovery exceeds control limits
F2	Matrix spike/duplicate relative percent difference exceeds control limits
J	The reported result is an estimated value
K	Benzo(b&k)fluoranthene unresolved due to matrix; result reported as Benzo(b)fluoranthene
ft bgs	Feet below ground surface
mg/kg	Milligrams per kilogram
µg/kg	Micrograms per kilogram
XX* [XXX]	Standard in bold is the SBTV being used for the purpose of evaluation under ch. NR700 WAC. The established WAC RCL is noted in brackets

Table 2: Waste Characterization Summary, May 2022
C. Reiss Coal Dock
Superior, Wisconsin

Sample Location Sample Date Sample ID Sampling Company Laboratory Sample ID Soil Sample Locations Represented	Units	EPA TCLP Regulatory Limit[1]	Railroad Cut, SE 5-May-22 STN-A STANTEC 500-216192-36 STN1, 3, 6, 13	Pond & Road Cut, SW 5-May-22 STN-B STANTEC 500-216192-37 STN2, 5, 8, 9, 10, 11, 12
General Chemistry				
Chlorine, Total	%	n/v	<0.062	<0.064
Cyanide, Total	mg/kg	n/v	0.17 J	0.28 J
Free Liquids	n/v	n/v	Pass	Pass
pH	n/v	n/v	8.0	8.1
Phenolics, Total Recoverable	mg/kg	n/v	<0.52	0.58 J
Sulfide	mg/kg	n/v	<5.9	<5.8
Polychlorinated Biphenyls				
Aroclor-1016	mg/kg	n/v	<0.040	<0.042
Aroclor-1221	mg/kg	n/v	<0.040	<0.042
Aroclor-1232	mg/kg	n/v	<0.028	<0.029
Aroclor-1242	mg/kg	n/v	<0.040	<0.041
Aroclor-1248	mg/kg	n/v	<0.049	<0.051
Aroclor-1254	mg/kg	n/v	<0.035	<0.036
Aroclor-1260	mg/kg	n/v	<0.039	<0.040
Aroclor-1262	mg/kg	n/v	<0.034	<0.035
Aroclor-1268	mg/kg	n/v	<0.059	<0.062
TCLP Metals				
Arsenic	mg/L	5.0	<0.010	<0.010
Barium	mg/L	100.0	0.66	0.60
Cadmium	mg/L	1.0	<0.0020	0.0025 J
Chromium	mg/L	5.0	<0.010	<0.010
Copper	mg/L	n/v	<0.010	<0.010
Lead	mg/L	5.0	<0.0075	<0.0075
Nickel	mg/L	n/v	<0.010	<0.010
Selenium	mg/L	1.0	<0.020	<0.020
Silver	mg/L	5.0	<0.010	<0.010
Zinc	mg/L	n/v	0.028 J	0.37
Mercury	mg/L	0.2	<0.00020	<0.00020
TCLP Volatile Organic Compounds				
1,1-Dichloroethene	mg/L	0.7	<0.010	<0.010
1,2-Dichloroethane	mg/L	0.5	<0.010	<0.010
2-Butanone	mg/L	200.0	<0.050	<0.050
Benzene	mg/L	0.5	<0.010	<0.010
Carbon tetrachloride	mg/L	0.5	<0.010	<0.010
Chlorobenzene	mg/L	100.0	<0.010	<0.010
Chloroform	mg/L	6.0	<0.020	<0.020
Tetrachloroethene	mg/L	0.7	<0.010	<0.010
Trichloroethene	mg/L	0.5	<0.010	<0.010
Vinyl chloride	mg/L	0.2	<0.010	<0.010
TCLP Semi-Volatile Organic Compounds				
1,4-Dichlorobenzene	mg/L	7.5	<0.10	<0.10
2,4,5-Trichlorophenol	mg/L	400.0	<0.50	<0.50
2,4,6-Trichlorophenol	mg/L	2.0	<0.25	<0.25
2,4-Dinitrotoluene	mg/L	0.13	<0.050	<0.050
2-Methylphenol	mg/L	200.0	<0.10	<0.10
3 & 4-Methylphenol	mg/L	200.0	<0.10	<0.10
Hexachlorobenzene	mg/L	0.13	<0.025	<0.025
Hexachlorobutadiene	mg/L	0.5	<0.25	<0.25
Hexachloroethane	mg/L	3.0	<0.25	<0.25
Nitrobenzene	mg/L	2.0	<0.050	<0.050
Pentachlorophenol	mg/L	100.0	<1.0	<1.0
Pyridine	mg/L	5.0	<1.0	<1.0

Notes

8.0	Measured concentration did not exceed the indicated standard.
<0.59	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
J	The reported result is an estimated value.
ft	Feet
EPA	Environmental Protection Agency
TCLP	Toxicity Characteristic Leaching Procedure
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
%	Percent
[1]	Per EPA *Maximum Concentration of Contaminants for Tocixity Characteristic* values.

ATTACHMENTS

ATTACHMENT A
Photographic Log

Stantec

Photographic Log

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 1

Photo Location:
STN1

Direction:
Looking north

Survey Date:
5/5/2022

Comments:
Drilling STN1 in the southeast portion of the Property

Photograph ID: 2

Photo Location:
STN1

Direction:
-

Survey Date:
5/5/2022

Comments:
Soil cores taken from STN1; native red-brown clay was present starting ~2.5 feet below ground surface

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 3 **Photo Location:** STN2 **Direction:** Looking south **Survey Date:** 5/5/2022 **Comments:** Drilling STN2 in the southwest portion of the Property	
Photograph ID: 4 **Photo Location:** STN2 **Direction:** - **Survey Date:** 5/5/2022 **Comments:** Soil cores taken from STN2; native red-brown clay was present starting ~2.5 feet below ground surface	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 5 **Photo Location:** North of STN4 **Direction:** Looking east **Survey Date:** 5/5/2022 **Comments:** Skimming system for product recovery in association with a release on the east-adjoining property	
Photograph ID: 6 **Photo Location:** STN5 **Direction:** Looking north **Survey Date:** 5/5/2022 **Comments:** Drilling STN5 in the southwest portion of the Property	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 7 **Photo Location:** STN5 **Direction:** - **Survey Date:** 5/5/2022 **Comments:** Soil cores taken from STN5; black granular fill was present to the maximum depth of exploration (12 feet below ground surface)	
Photograph ID: 8 **Photo Location:** STN9 **Direction:** Looking northwest **Survey Date:** 5/4/2022 **Comments:** View of the slip from STN9, which was performed on a hill and in the footprint of a future storm water pond	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 9 **Photo Location:** STN10 **Direction:** Looking north **Survey Date:** 5/4/2022 **Comments:** View of STN10, which was performed on a hill near an area of concrete rubble and in the footprint of a future storm water pond	
Photograph ID: 10 **Photo Location:** STN10 **Direction:** - **Survey Date:** 5/4/2022 **Comments:** Soil cores taken from STN10; native clays, silts and sands were present starting ~6 feet below ground surface	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 11 **Photo Location:** North of STN12 **Direction:** Looking northwest **Survey Date:** 5/4/2022 **Comments:** View of former ballast tank release area from STN12, which was performed on a hill and in the footprint of a future storm water pond	
Photograph ID: 12 **Photo Location:** STN13 **Direction:** Looking northeast **Survey Date:** 5/4/2022 **Comments:** View of STN13, as seen from existing monitoring well MWOW-2D	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 13	
Photo Location: STN13	
Direction: -	
Survey Date: 5/4/2022	
Comments: Soils from STN13 and all other soil locations were screened with a portable ionization detector for presence of volatile organic compounds	

Photograph ID: 14	
Photo Location: STN14	
Direction: Looking north	
Survey Date: 5/4/2022	
Comments: View of STN14. The concrete panels shown were present on the entire north half of the Property	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 15 **Photo Location:** STN16 **Direction:** Looking south **Survey Date:** 5/4/2022 **Comments:** View of STN16 (location noted by the orange bucket)	
Photograph ID: 16 **Photo Location:** STN16 **Direction:** - **Survey Date:** 5/4/2022 **Comments:** Soil cores taken from STN16; petroleum impacts were observed in soils from this location starting ~1.5 feet below ground surface	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 17 **Photo Location:** West of STN19 **Direction:** Looking south **Survey Date:** 5/4/2022 **Comments:** View of the slip, as seen from the dock wall near STN19	
Photograph ID: 18 **Photo Location:** STN19 **Direction:** - **Survey Date:** 5/4/2022 **Comments:** Soil cores taken from STN19; red fill sands were generally present on the north half of the property until ~11. 5 feet below ground surface, where native silts/fine sands were encountered	

Client:	**C. Reiss Coal Company, LLC**	**Project:**	**193707141**
Site Name:	**C. Reiss Coal Dock Property**	**Site Location:**	**Superior, Wisconsin**

Photograph ID: 19 **Photo Location:** STN20 **Direction:** Looking northeast **Survey Date:** 5/4/2022 **Comments:** View of Lake Superior, as seen from STN20	
Photograph ID: 20 **Photo Location:** STN20 **Direction:** - **Survey Date:** 5/4/2022 **Comments:** Soil cores taken from STN20; red fill sands were generally present on the north half of the Property, and groundwater was encountered 0-3 feet below ground surface on the north half of the Property	

ATTACHMENT B

Soil Boring Logs

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN1

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN1			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 308,474 N, 142,804 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.25	48		0	ROOTED TOPSOIL, red-brown, moist, clayey, trace black fill pieces, no odor.				0.1						
0.25-2.5	30		1	SILTY CLAY, red-brown clay with dark brown silt, wet, soft, elastic, roots and black fill pieces (<5%) present, no odor.				0.1						STN1 0.25-2.5 PAH, RCRA
			2											
2.5-4.5			3	CLAY, red-brown, moist, saturated @ 7.5', medium-stiff to medium-soft, plastic, no odor.				0.1						
	48		4											
4.5-6.5	48		5					0.2						STN1 4.5-6.5 PAH, RCRA
			6											
6.5-8.5			7		CH			0.1						
	48		8											
8.5-10	48		9					0.3						
			10											
10-12			11					0.6						
			12											

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

Signature	Firm	Tel:
Whitney Cull	Stantec Consulting Services Inc.	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN10

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN10			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,842 N, 142,483 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-2.25	48 24		0	ROOTED TOPSOIL, black, moist, trace coal pieces, no odor.				0.1						STN10 0-2.25 PAH, RCRA
			1	SAND, buff, moist, rounded, coarse, spherical, semi-lithified, no odor.										
				BRICK, yellow, dry, pulverized, no odor.										
			2	BRICK, red, dry, pulverized, no odor.										
2.25-4				FILL, black, dry, granular, fine, no odor.				0.0						
			3	CONCRETE, beige/rose, dry, pulverized, no odor.										
4-6	48 9		4	POOR RECOVERY, likely concrete above.				0.0						
			5											
6-8			6	SANDY CLAY, red-brown, moist, soft, trace black fill pieces, no odor.				0.0						
			7											
8-9.5	48 30		8	CLAYEY SAND, red-brown, saturated @ 9.5', no odor.				0.0						STN10 8-9.5 PAH, RCRA
			9		SC									
9.5-12								0.0						
			10	SILT, red-brown, saturated, no odor.	ML									
			11	SAND, red-brown, saturated, medium, uniform, no odor.	SP									
			12		ML									

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

Signature	Firm	Tel:
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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number STN10 Use only as an attachment to Form 4400-122. Page 2 of 2

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				SILT, red-brown, saturated, no odor.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN11

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN11			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,910 N, 142,625 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-2	48 24		1	ROOTED TOPSOIL, black, moist, black fill and yellow brick pieces present (10%), no odor.				0.0						STN11 0-2 PAH, RCRA
				FILL, black, moist, granular, fine, trace yellow brick pieces, no odor.										
2-4			2	SAND, dark brown, moist, medium, trace black fill pieces, gravels (~15%) rounded, 1/8-1/2", no odor.				0.0						
			3	CLAY, red-brown, moist, medium-stiff, plastic, no odor.										
4-6	48 39		4		CH			0.0						
			5											
6-8			6	SAND, red-brown, moist, medium, uniform, no odor.	SP			0.0						
			7	SILT, light red-brown, moist, fine, no odor.	ML									
8-10.5	48 39		8	SAND, red-brown, moist, fine, uniform, no odor.	SP			0.0						
			9	SAND, red-brown, moist, medium, uniform, no odor.	SP									
			10											
10.5-12			11	SILTY CLAY, red-brown, wet, some elasticity, no odor.	CL-ML			0.0						STN11 10.5-12 PAH, RCRA
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN12			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 310,044 N, 142,505 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.5	48		0	ROOTED TOPSOIL & BRICK, black, moist, brick pieces (~40%) are yellow, trace coal pieces, no odor.				0.3						
0.5-1.5	24		1					0.1						
1.5-3.5			2	SAND & GRAVEL, beige, moist, well-graded, gravels (~50%) are angular, 1/8-1", no odor.				0.0						
			3	CLAY, red-brown, moist, medium-stiff, plastic, black fill pieces (~10%) present, no odor.										
3.5-4.5			4	FILL, black, moist, granular, lustrous, no odor.				0.0						STN12 3.5-4.5 PAH, RCRA
	48													
4.5-6	27		5	CLAY, red-brown, moist, medium-stiff, plastic, no odor.				0.0						
6-8	48		6					0.0						
			7											
8-10	48		8		CH			0.0						STN12 8-10 PAH, RCRA
	48		9											
10-12			10					0.1						
			11											
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN13			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 310,274 N, 142,732 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48 24		1	ROOTED TOPSOIL, black, moist, gravels (~10%) are subrounded, ~1/2"; fill pieces (~10%) are black and red (brick), no odor.				0.0						
1-2.5			2	BRICK, red, dry, pulverized, no odor. BRICK, yellow, dry, pulverized, no odor.				0.0						
2.5-3.5			3	FILL, black, saturated @ 3.5' granular, medium-to-coarse, lustrous, no odor.				0.0						STN13 2.5-3.5 PAH, RCRA
3.5-6	48 24		4 5					0.0						
6-8			6 7	CLAY, red-brown, saturated, medium-soft, plastic, no odor.				0.0						
8-9.5	48 36		8 9					0.0						
9.5-12			10 11 12	SAND, red-brown, saturated, fine, uniform, no odor.	SP			0.0						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN14			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 310,459 N, 142,604 E S /©/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.5	48		0	ROOTED TOPSOIL, black, saturated near surface (~0.1'), no odor.				0.0						STN14 0-2 PAH, RCRA
0.5-2	24		1	SAND, red-brown, saturated, medium, uniform, no odor.				0.0						
2-4			2	CLAY, red-brown, saturated, medium-soft, plastic, no odor. Silt seam 7-7.25'.				0.1						
4-6	48		3											
	36		4					0.2						
6-8			5											
			6					0.2						
8-9	48		7											
	36		8	SILTY SAND, brown, saturated, fine, no odor.	SM			0.4						
9-10.5			9	SILT, brown, saturated, no odor.	ML			0.4						
			10											
10.5-12			11	SAND, red-brown, saturated, fine, no odor.	SP			0.3						
			12											

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

Signature	Firm	Tel:
Whitney Cull	Stantec Consulting Services Inc.	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN15

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN15			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 310,840 N, 142,464 E S /©/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48		0	GRAVELLY ROOTED TOPSOIL, dark brown, wet, gravels (~30%) are subrounded, ~1/2", no odor.				0.0						STN15 0-1 PAH, RCRA
1-2	30		1	CONCRETE, beige, dry, pulverized, no odor.				0.0						
2-2.25			2	SAND, beige, moist, coarse, rounded, spherical, no odor.				0.0						
2.25-5			3	SAND, brown, saturated @ 1', medium, no odor.				0.0						
				FILL, black, granular, fine, no odor.										
	48		4	SAND, red-brown, saturated, medium, uniform, no odor.										
5-7.75	36		5					0.1						
			6											
			7											
7.75-8			8	WOOD CHIPS/PIECES, dark brown, saturated, organic odor.				2.5						
8-10.5	48							0.4						
	48		9	SAND, red-brown, saturated, medium, uniform, no odor.										
			10											
10.5-12			11	SAND, red-brown, saturated, coarse, subrounded, trace gravels ~1/8", no odor.				0.7						
			12											

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN16			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 311,177 N, 142,755 E S /©/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48 24		0	FILL, black, wet, granular, fine, some organics (roots) present, faint HC odor.				0.7						STN16 0-1.5 PAH, RCRA, VOC
1-1.5			1	SAND, beige, wet, coarse, rounded, spherical, uniform, no odor.				0.7						
1.5-3.5			2	SAND, red-brown, saturated @ 1.5', medium, rounded, uniform, no odor.				19.7						
			3											
3.5-5	48 30		4	SAND, brown, saturated, fine, uniform, HC odor.				349.0						STN16 3.5-5 PAH, RCRA, VOC
5-7			5	CLAY, red-brown, saturated, medium-soft, plastic, HC odor with some black staining present.				96.3						
			6											
7-10	48 30		7	SILTY SAND, brown, saturated, trace organices (wood pieces, roots), faint HC odor.	SM			8.3						
			8											
			9											
10-10.5			10	SILT, brown, saturated, organic odor.	ML			6.0						
10.5-12			11	SAND, brown, saturated, medium-to-fine, no odor.	SP			6.0						
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN17			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 311,555 N, 142,473 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1.25	48 24		0	ROOTED TOPSOIL, dark brown, moist, no odor.				0.0						STN17 0-1.25 PAH, RCRA
1.25-3.5			1	SAND & GRAVEL, beige/rose, moist, trace black fill pieces, gravels (~50%) are angular, 1/8-1", no odor.				0.1						
			2	SAND, red-brown, saturated @ 1.25', medium, rounded, uniform, no odor.										
			3											
3.5-4				SILTY CLAY, dark brown, saturated, soft, some wood pieces present, no odor.				0.9						
4-8	48 0		4	NO RECOVERY. Per driller, very soft material, may be same as above.				-						
			5											
			6											
			7											
8-10	48 24		8	SAND, red-brown, saturated, medium-to-coarse, some small organics (wood pieces) ~8', no odor.				0.1						
			9											
10-12			10					0.1						
			11											
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN18

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN18			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 311,871 N, 142,758 E S /©/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1.5	48 24		1	FILL, black, wet, granular, fine, small coal pieces (~10%) present, no odor.				0.1						STN18 0-1.5 PAH, RCRA
1.5-3.5			2	SAND, red-brown, saturated @ 1.5', medium, rounded, uniform, no odor. Seam of organic material (wood/roots) 8.5-8.75'.				0.0						
3.5-5.5	48 36		4					0.1						
5.5-7.5			6					0.4						
7.5-9.5	48 30		8					0.1						
9.5-11.5			10					0.2						
11.5-12			12	SAND, brown, saturated, fine, some	SP			0.8						

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SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number STN18 Use only as an attachment to Form 4400-122.

Sample									Soil Properties					
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				organics (wood pieces, roots), no odor.										

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN19

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN19			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 312,198 N, 142,480 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48 30		0 1	ROOTED TOPSOIL, brown, dry, no odor. SANDY GRAVEL, beige/rose, dry, trace coal pieces, gravels (~75%) are subangular, 1/8-1", no odor.				0.0						STN19 0-1 PAH, RCRA
1-3			1 2					0.0						
			2	FILL, black and dark brown, moist, granular, fine, no odor.										
3-5			3	SAND, red-brown, saturated @ 1', medium, rounded, uniform, no odor.				0.0						
	48 48		4											
5-7			5					0.0						
			6											
7-9			7					0.0						
	48 48		8											
9-11.5			9					0.2						
			10											
			11											
11.5-12.5			12		SM			0.0						

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Department of Natural Resources

SOIL BORING LOG INFORMATION SUPPLEMENT
Form 4400-122A

Boring Number STN19 Use only as an attachment to Form 4400-122.

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
12.5-14	48 45		13	SILTY SAND, dark brown, saturated, organics (roots, wood pieces) present, no odor. *(continued)*	SM			0.1						
14-16			14	SAND, brown, saturated, medium-to-coarse, rounded, trace roots present, no odor.	SP			0.0						
			15											
			16											

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN2			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 308,787 N, 142,712 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-2.5	48 18		0 1	ROOTED TOPSOIL, brown, moist, no odor. SANDY GRAVEL, beige gravels with brown sand matrix, moist, well-graded, gravels (~60%) are subrounded, 1/8-1", no odor.				0.7						STN2 0-2.5 PAH, RCRA, VOC; FD1 VOC
2.5-4			2 3	FILL, dark brown clayey silt matrix with black fill/coal pieces (~15%), moist, no odor.				0.3						
4-6	48 48		4 5	CLAY, red-brown, moist, saturated @ 7', medium-stiff, plastic, no odor.				0.2						STN2 4-6 PAH, RCRA
6-8			6 7		CH			0.3						
8-10	48 48		8 9					0.3						
10-12			10 11 12					0.4						

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN20

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN20			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 312,620 N, 142,780 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48 24		1	ROOTED TOPSOIL, dark brown, moist, trace coal pieces, no odor.				0.0						STN20 0-1 PAH, RCRA
1-3			2	SAND, red-brown, saturated @ 3', medium, rounded, uniform, no odor.				0.0						STN20 1-3 PAH, RCRA
3-5			3					0.0						
	48 36		4											
5-7			5					0.0						
			6											
7-9			7					0.0						
	48 48		8											
9-12			9					0.1						
			10											
			11											
			12											

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN3

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN3			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 308,569 N, 142,341 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.25	48		0	ROOTED TOPSOIL, dark brown, moist, no odor.	GW			0.0						
0.25-2.5	24		1	SAND & GRAVEL, beige, wet, well-graded, gravels (~50%) are subrounded, 1/8-1", no odor.				0.1						STN3 0.25-2.5 PAH, RCRA
			2	SAND, brown, wet, medium-to-fine, trace gravels, no odor.	SP									
2.5-4			3	CLAY, red-brown, moist, saturated @ 7', medium-stiff, plastic, no odor.				0.1						STN3 2.5-4 PAH, RCRA
4-6	48		4					0.1						
	48		5		CH									
6-8			6					0.1						
			7											
8-9.5	48		8					0.3						
	48		9	SANDY CLAY, brown, saturated, gravels (~20%) are subangular, 1/8-1/2". Thin peat horizon ~9.5', trace roots, faint organic odor.	SW-SC									
9.5-11.25			10	CLAY, red-brown, saturated, medium-stiff, plastic, no odor.	CH			0.1						
			11											
11.25-12			12	SAND, red-brown, saturated, medium, rounded, uniform, no odor.	SP			0.1						

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN4

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN4			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 308,896 N, 142,560 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.5	48		0	GRAVELLY ROOTED TOPSOIL, dark brown, moist, trace black/brick fill pieces, gravels (~40%) are subrounded, ~1/2", no odor.				0.0						
0.5-2.5	18		1					0.0						STN4 0.5-2.5 PAH, RCRA
			2	FILL, black, moist, granular with brick (red) and coal pieces, no odor.										
2.5-4			3	SILTY CLAY, light red-brown, moist, lean, no odor.	CL-ML			0.1						
4-6	48		4	CLAY, red-brown, moist, saturated @ 7', medium-stiff, plastic, no odor.				0.0						STN4 4-6 PAH, RCRA
	48		5											
6-8			6					0.0						
			7											
8-10	48		8		CH			0.1						
	48		9											
10-12			10					0.0						
			11											
			12											

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

Signature	Firm	Tel:
Whitney Cull	Stantec Consulting Services Inc.	Fax:

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN5

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN5			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,201 N, 142,465 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.5	48		0	ROOTED TOPSOIL, black, moist, soft, trace black fill pieces, no odor.				0.0						
0.5-2	18		1	FILL, black, moist, saturated @ 5', granular, fine 0-4', coarse 4-12', red and yellow brick pieces (~30%) present 11-12'; no odor.				0.1						
2-4			2					0.1						STN5 2-4 PAH, RCRA
			3											
4-6	48		4					0.1						
	18		5											
6-8			6					0.0						
			7											
8-10	48		8					0.1						
	24		9											
			10											
10-12								0.1						
			11											
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN6

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN6			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,336 N, 142,761 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-2	48 21		0	ROOTED TOPSOIL, black, wet, no odor.				0.0						STN6 0-2 PAH, RCRA
			1	FILL, black, wet, granular, medium-to-coarse, some roots and coal pieces present, no odor.										
2-3			2	CLAYEY SILT, dark brown/black, wet, black fill pieces present (~10%), no odor.				0.0						
3-4			3	CLAY, red-brown, moist, saturated @ 11', plastic, medium-stiff, no odor.				0.0						
4-6	48 36		4					0.0						
			5											
6-8			6					0.0						
			7		CH									
8-10	48 48		8					0.0						STN6 8-10 PAH, RCRA
			9											
10-12			10					0.0						
			11											
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN7

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/5/2022	5/5/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN7			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,417 N, 142,461 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-0.75	48		0	ROOTED TOPSOIL, black, moist, trace black fill pieces, no odor.				0.0						
	36													
0.75-1.5			1	CONCRETE, beige/rose, dry, pulverized, no odor.				0.0						
1.5-3			2	GRAVELLY TOPSOIL, black, moist, trace black fill pieces, gravels (~20%) are rounded, 1/4-1/2", no odor.				0.0						STN7 1.5-3 PAH, RCRA
3-4			3	FILL, black, moist, granular, some lustrous pieces present, no odor.				0.0						
4-6	48		4	CLAY, red-brown, moist, saturated @ 11', plastic, medium-stiff, no odor.				0.0						STN7 4-6 PAH, RCRA
	48													
			5											
6-8			6					0.0						
			7		CH									
8-10	48		8					0.1						
	48													
			9											
10-12			10					0.1						
			11											
			12											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN8

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN8			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,490 N, 142,565 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-2.5	48 24		0 1	ROOTED TOPSOIL, black, moist, trace black fill pieces, no odor. FILL, black, wet, granular, medium-to-fine, some roots present, no odor.				0.0						STN8 0-2.5 PAH, RCRA
2.5-4			2 3	CLAY, red-brown, moist, saturated @ 11', lean, medium-stiff, no odor. Silt lens ~8-8.25'.				0.0						
4-6	48 48		4 5					0.0						
6-8			6 7		CL			0.0						STN8 6-8 PAH, RCRA
8-10	48 48		8 9					0.0						
10-12			10 11 12					0.0						

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Signature	Firm	Tel:
Whitney Cull	Stantec Consulting Services Inc.	Fax:

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
C. Reiss Coal Dock	BRRTS # 02-16-589248	STN9

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb Soils & Engineering Services, Inc.	5/4/2022	5/4/2022	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
STN9			Feet MSL	Feet MSL	2.3 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 309,649 N, 142,458 E S /Ⓒ/N
NE 1/4 of NE 1/4 of Section 16, T 49 N, R 14 W
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Douglas	16	Superior

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
0-1	48 36		1	ROOTED TOPSOIL, dark brown, moist, trace black fill pieces, no odor.				0.0						
1-2.5				BRICK, yellow, dry, pulverized, no odor.				0.0						STN9 1-2.5 PAH, RCRA
			2	FILL, black, moist, granular, some red-brown clay matrix, no odor.										
2.5-4.5			3	SILTY SAND, red-brown, moist, no odor. Clay seam ~4-4.25'.				0.0						
	48 36		4											
4.5-6.5			5		SM			0.0						STN9 4.5-6.5 PAH, RCRA
			6											
6.5-8			7	SAND, red-brown, moist, medium, uniform, no odor.	SP			0.0						
8-9	48 42		8	SAND, red-brown, wet, fine, uniform, no odor.	SP			0.0						
9-12			9	SAND, red-brown, saturated @ 9', medium, uniform, no odor.				0.0						
			10		SP									
			11											
			12											

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

Signature	Firm	Tel:
Whitney Cull	Stantec Consulting Services Inc.	Fax:

ATTACHMENT C
Borehole Abandonment Forms

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN1	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN10	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.8	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN11	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN12	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N / ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN13	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN14	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN15	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.2	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN16	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.1	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN17	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.2	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN18	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.2	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN19	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	16.0	0.8	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN2	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN20	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.2	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN3	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN4	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return this form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN5	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼ NE	¼ NE	Section	Township	Range
or Gov't Lot #		16	49	14 ☐ E ☒ W

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route	Telephone Number
1102 Stewart Street	(608) 274 - 7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713	Whitney Cull	6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN6	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.5	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN7	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/5/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.6	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/5/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN8	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.6	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-5 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Douglas	STN9	

Lattitude / Longitude (Degrees and Minutes): ° ' " 'N ; ° ' " 'W
Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range
NE	NE	16	49	14 ☐ E ☒ W

or Gov't Lot #

Well Street Address: 3200 Winter Street

Well City, Village or Town	Well ZIP Code
Superior	54880

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Soil borehole abandonment	

2. Facility / Owner Information

Facility Name: C. Reiss Coal Dock
Facility ID (FID or PWS):
License/Permit/Monitoring #: BRRTS # 02-16-589248
Original Well Owner:
Present Well Owner: C. Reiss Coal Company
Mailing Address of Present Owner: 111 West Mason Street

City of Present Owner	State	ZIP Code
Green Bay	WI	54303

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

Original Construction Date: 5/4/2022
If a Well Construction Report is available, please attach.

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft)	Casing Diameter (in.)

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2.3	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☒ No	☐ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☐ No	☒ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☐ N/A
If bentonite chips were used, were they hydrated with water from a known safe source	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite chips	Surface	12.0	0.6	Sacks

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		5/4/2022

Street or Route: 1102 Stewart Street
Telephone Number: (608) 274 - 7600

City	State	ZIP Code
Madison	WI	53713

Signature of Person Doing Work: Whitney Cull
Date Signed: 6/3/2022

DNR Use Only

Date Received	Noted By

Comments:

ATTACHMENT D
Laboratory Analytical Results

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-216192-1
Client Project/Site: C Reiss Coal Dock Superior - 193707141

For:
Stantec Consulting Corp.
12075 Corporate Pkwy, Suite 200
Mequon, Wisconsin 53092

Attn: Whitney Cull

Authorized for release by:
5/23/2022 4:28:05 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

Table of Contents

Job ID: 500-216192-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-216192-1

Comments
No additional comments.

Receipt
The samples were received on 5/6/2022 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.2º C and 1.2º C.

GC/MS VOA
Method 8260B: The following sample was diluted due to the abundance of non-target analytes: STN16 3.5-5 (500-216192-29). Elevated reporting limits (RLs) are provided.

Method 8260B: The laboratory control sample (LCS) for 655406 recovered outside control limits for Chloromethane and Difluorodichloromethane. This is a prepped 5035 LCS. All daily insrument LCSs were acceptable, and the data have been reported.STN2 0-2.5 (500-216192-3), FD1 (500-216192-4), STN16 0-1.5 (500-216192-28), STN16 3.5-5 (500-216192-29) and Trip Blank (500-216192-35)

Method 8260B: The laboratory control sample (LCS) for 657241 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. Trip Blank (500-216192-35)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color and appearance: STN2 0-2.5 (500-216192-3) and STN6 0-2 (500-216192-11). Elevated reporting limits (RL) are provided.

Method 8270D: The following sample was diluted due to viscosity: STN5 2-4 (500-216192-10). Elevated reporting limits (RL) are provided.

Method 8270D: The following sample required a dilution due to sample viscosity: STN5 2-4 (500-216192-10). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: Surrogate recovery for the following samples were outside acceptance limits: STN2 0-2.5 (500-216192-3) and STN4 0.5-2.5 (500-216192-8). No further volume remains for re-extraction. Therefor, the data has been reported.

Method 8270D: The associated sample has two acid extractable surrogates outside of control limits. However, the surrogates are not associated with PAH target analytes. Therefore, the data has been reported. STN15 0-1 (500-216192-27)

Method 8270D: The following samples were diluted due to viscosity: STN8 0-2.5 (500-216192-15), STN9 1-2.5 (500-216192-17), STN10 0-2.25 (500-216192-19), STN11 0-2 (500-216192-21) and STN13 2.5-3.5 (500-216192-25). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples required a dilution due to viscosity: STN8 0-2.5 (500-216192-15), STN9 1-2.5 (500-216192-17), STN10 0-2.25 (500-216192-19), STN11 0-2 (500-216192-21) and STN13 2.5-3.5 (500-216192-25). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following sample was diluted due to color, appearance, and viscosity: STN6 0-2 (500-216192-11). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted due to color and appearance: STN12 3.5-4.5 (500-216192-23), STN15 0-1 (500-216192-27) and STN17 0-1.25 (500-216192-30). Elevated reporting limits (RL) are provided.

Method 8270D: Surrogate recovery for the following sample was outside control limits: STN19 0-1 (500-216192-32). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Job ID: 500-216192-1 (Continued)

Laboratory: Eurofins Chicago (Continued)

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-626456 and analytical batch 480-626621 recovered outside control limits for the following analytes: Benzo[a]pyrene and Benzo[b]fluoranthene.

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 480-626621 was outside the method criteria for the following analyte(s): 2,4,6-Tribromophenol (Surr). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: STN17 0-1.25 (500-216192-30). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-626647 recovered above the upper control limit for Benzo[g,h,i]perylene and Indeno[1,2,3-cd]pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: STN20 1-3 (500-216192-34).

Method 8270D: The following samples were diluted to bring the concentration of target analytes within the calibration range: STN10 0-2.25 (500-216192-19) and STN16 3.5-5 (500-216192-29). Elevated reporting limits (RLs) are provided.

Method 8270D: The following sample was diluted due to the abundance of target analytes: STN10 0-2.25 (500-216192-19). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: STN-A (500-216192-36) and STN-B (500-216192-37). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: STN-A (500-216192-36) and STN-B (500-216192-37). The reagent lot number used was: W23H004.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: STN-A (500-216192-36) and STN-B (500-216192-37). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010C: The method blank for preparation batch 500-656834 and analytical batch 500-657076 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 3550C: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation: STN2 0-2.5 (500-216192-3) and STN4 0.5-2.5 (500-216192-8).

Method 3550C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-626456.

Job ID: 500-216192-1 (Continued)

Laboratory: Eurofins Chicago (Continued)

Method 3550C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-626461.

Method 3550C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: STN20 0-1 (500-216192-33).

Method 3550C: The following samples: STN9 4.5-6.5 (500-216192-18), STN16 3.5-5 (500-216192-29) and STN19 0-1 (500-216192-32) was decanted prior to preparation

Method 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: STN8 0-2.5 (500-216192-15). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN1 0.25-2.5 — Lab Sample ID: 500-216192-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	97	J	220	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	92	J	220	32	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	85	J	220	34	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	55	J	220	23	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	43	J	220	28	ug/Kg	1	☼	8270D	Total/NA
Chrysene	96	J	220	49	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	140	J	220	23	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	48	J	220	27	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	120	J	220	32	ug/Kg	1	☼	8270D	Total/NA
Pyrene	130	J	220	26	ug/Kg	1	☼	8270D	Total/NA
Arsenic	4.4	F1	1.3	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	100		1.3	0.15	mg/Kg	1	☼	6010C	Total/NA
Chromium	37	B F1	1.3	0.63	mg/Kg	1	☼	6010C	Total/NA
Lead	28	F1 F2	0.64	0.30	mg/Kg	1	☼	6010C	Total/NA
Silver	0.43	J F1	0.64	0.17	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.029		0.021	0.0069	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN1 4.5-6.5 — Lab Sample ID: 500-216192-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.1		1.3	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	160		1.3	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	36	B	1.3	0.63	mg/Kg	1	☼	6010C	Total/NA
Lead	10		0.63	0.29	mg/Kg	1	☼	6010C	Total/NA
Silver	0.60	J	0.63	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN2 0-2.5 — Lab Sample ID: 500-216192-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	78		70	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	26		18	10	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	56		18	13	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	35	J	70	27	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	180		70	23	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	39	J	70	29	ug/Kg	50	☼	8260B	Total/NA
Toluene	160		18	10	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	280		35	15	ug/Kg	50	☼	8260B	Total/NA
2-Methylnaphthalene	380	J	1000	210	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	940	J	1000	150	ug/Kg	5	☼	8270D	Total/NA
Anthracene	2600		1000	250	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2800		1000	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2300		1000	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2900		1000	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1900		1000	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1000		1000	130	ug/Kg	5	☼	8270D	Total/NA
Chrysene	3100		1000	230	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	460	J	1000	180	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	6900		1000	110	ug/Kg	5	☼	8270D	Total/NA
Fluorene	1200		1000	120	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300		1000	130	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	9800		1000	150	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN2 0-2.5 (Continued) — Lab Sample ID: 500-216192-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	6500		1000	120	ug/Kg	5	☼	8270D	Total/NA
Arsenic	5.7		1.1	0.36	mg/Kg	1	☼	6010C	Total/NA
Barium	89		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J B	0.21	0.038	mg/Kg	1	☼	6010C	Total/NA
Chromium	100	B	1.1	0.53	mg/Kg	1	☼	6010C	Total/NA
Lead	30		0.53	0.25	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.79	J	1.1	0.63	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.022		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: FD1 — Lab Sample ID: 500-216192-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	68	J	69	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	50		17	10	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	42		17	13	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	150		69	23	ug/Kg	50	☼	8260B	Total/NA
Toluene	150		17	10	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	230		35	15	ug/Kg	50	☼	8260B	Total/NA

Client Sample ID: STN2 4-6 — Lab Sample ID: 500-216192-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.5		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	200		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Chromium	32	B	1.1	0.54	mg/Kg	1	☼	6010C	Total/NA
Lead	11		0.55	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.64		0.55	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.022		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN3 0.25-2.5 — Lab Sample ID: 500-216192-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.2		1.0	0.35	mg/Kg	1	☼	6010C	Total/NA
Barium	55		1.0	0.12	mg/Kg	1	☼	6010C	Total/NA
Chromium	23	B	1.0	0.50	mg/Kg	1	☼	6010C	Total/NA
Lead	6.8		0.51	0.23	mg/Kg	1	☼	6010C	Total/NA
Silver	0.16	J	0.51	0.13	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.018		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN3 2.5-4 — Lab Sample ID: 500-216192-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.2		1.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	160		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	40	B	1.2	0.62	mg/Kg	1	☼	6010C	Total/NA
Lead	8.6		0.62	0.29	mg/Kg	1	☼	6010C	Total/NA
Silver	0.59	J	0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.030		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN4 0.5-2.5 — Lab Sample ID: 500-216192-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	44	J	220	33	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN4 0.5-2.5 (Continued)
Lab Sample ID: 500-216192-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	80	J	220	36	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	46	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	41	J	220	29	ug/Kg	1	☼	8270D	Total/NA
Chrysene	130	J	220	50	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	96	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	74	J	220	33	ug/Kg	1	☼	8270D	Total/NA
Pyrene	96	J	220	26	ug/Kg	1	☼	8270D	Total/NA
Arsenic	5.2		1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	100		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	15	B	1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	47		0.60	0.28	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.40		0.019	0.0063	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN4 4-6
Lab Sample ID: 500-216192-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		1.1	0.39	mg/Kg	1	☼	6010C	Total/NA
Barium	180		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	46	B	1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	10		0.57	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.55	J	0.57	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.025		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN5 2-4
Lab Sample ID: 500-216192-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	810	J	4000	800	ug/Kg	20	☼	8270D	Total/NA
Acenaphthene	2100	J	4000	590	ug/Kg	20	☼	8270D	Total/NA
Anthracene	5200		4000	990	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]anthracene	12000		4000	400	ug/Kg	20	☼	8270D	Total/NA
Benzo[a]pyrene	11000		4000	590	ug/Kg	20	☼	8270D	Total/NA
Benzo[b]fluoranthene	12000		4000	640	ug/Kg	20	☼	8270D	Total/NA
Benzo[g,h,i]perylene	6800		4000	430	ug/Kg	20	☼	8270D	Total/NA
Benzo[k]fluoranthene	7700		4000	520	ug/Kg	20	☼	8270D	Total/NA
Chrysene	14000		4000	900	ug/Kg	20	☼	8270D	Total/NA
Dibenz(a,h)anthracene	2200	J	4000	710	ug/Kg	20	☼	8270D	Total/NA
Fluoranthene	25000		4000	430	ug/Kg	20	☼	8270D	Total/NA
Fluorene	2300	J	4000	470	ug/Kg	20	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	5900		4000	500	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	23000		4000	590	ug/Kg	20	☼	8270D	Total/NA
Pyrene	21000		4000	470	ug/Kg	20	☼	8270D	Total/NA
Arsenic	14		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	220		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.5	B	0.22	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	12	B	1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	800		0.55	0.25	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6		1.1	0.64	mg/Kg	1	☼	6010C	Total/NA
Silver	0.43	J	0.55	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.14		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN6 0-2 — Lab Sample ID: 500-216192-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	530	J	2500	500	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	1000	J	2500	250	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	1200	J	2500	370	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	1600	J	2500	390	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1300	J	2500	260	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	690	J	2500	320	ug/Kg	10	☼	8270D	Total/NA
Chrysene	1700	J	2500	560	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	1700	J	2500	260	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	900	J	2500	310	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	480	J	2500	320	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	1600	J	2500	370	ug/Kg	10	☼	8270D	Total/NA
Pyrene	1600	J	2500	290	ug/Kg	10	☼	8270D	Total/NA
Arsenic	4.8		1.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	100		1.4	0.16	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23	J B	0.28	0.050	mg/Kg	1	☼	6010C	Total/NA
Chromium	9.1	B	1.5	0.72	mg/Kg	1	☼	6010C	Total/NA
Lead	24		0.70	0.32	mg/Kg	1	☼	6010C	Total/NA
Silver	0.18	J	0.70	0.18	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.036		0.023	0.0077	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN6 8-10 — Lab Sample ID: 500-216192-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		1.2	0.40	mg/Kg	1	☼	6010C	Total/NA
Barium	160		1.2	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	39	B	1.2	0.58	mg/Kg	1	☼	6010C	Total/NA
Lead	9.9		0.59	0.27	mg/Kg	1	☼	6010C	Total/NA
Silver	0.59		0.59	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.025		0.021	0.0070	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN7 1.5-3 — Lab Sample ID: 500-216192-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	110	J	370	64	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	160	J	190	38	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	160	J	190	28	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	49	J	190	25	ug/Kg	1	☼	8270D	Total/NA
Anthracene	470		190	47	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1200		190	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	1000		190	28	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1300		190	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	770		190	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	690		190	25	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1500		190	43	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	240		190	34	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	2300		190	20	ug/Kg	1	☼	8270D	Total/NA
Fluorene	170	J	190	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	690		190	24	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	110	J	190	25	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	2000		190	28	ug/Kg	1	☼	8270D	Total/NA
Pyrene	2300		190	22	ug/Kg	1	☼	8270D	Total/NA
Arsenic	6.1		0.98	0.34	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN7 1.5-3 (Continued) — Lab Sample ID: 500-216192-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130		0.98	0.11	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.32	B	0.20	0.035	mg/Kg	1	☼	6010C	Total/NA
Chromium	18	B	0.98	0.49	mg/Kg	1	☼	6010C	Total/NA
Lead	15		0.49	0.23	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.0		0.98	0.58	mg/Kg	1	☼	6010C	Total/NA
Silver	0.36	J	0.49	0.13	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.032		0.018	0.0061	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN7 4-6 — Lab Sample ID: 500-216192-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	180		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	39	B	1.2	0.59	mg/Kg	1	☼	6010C	Total/NA
Lead	10		0.60	0.28	mg/Kg	1	☼	6010C	Total/NA
Silver	0.85		0.60	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.022		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN8 0-2.5 — Lab Sample ID: 500-216192-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	8800	J	43000	4500	ug/Kg	20	☼	8270D	Total/NA
Phenanthrene	8400	J	43000	6300	ug/Kg	20	☼	8270D	Total/NA
Pyrene	5900	J	43000	5000	ug/Kg	20	☼	8270D	Total/NA
Arsenic	9.5		1.3	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	140		1.3	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23	J B	0.25	0.045	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.5	B	1.2	0.60	mg/Kg	1	☼	6010C	Total/NA
Lead	46		0.63	0.29	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6		1.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.047		0.020	0.0065	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN8 6-8 — Lab Sample ID: 500-216192-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	160		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	39	B	1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	9.3		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.51	J	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN9 1-2.5 — Lab Sample ID: 500-216192-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	11000	J	19000	3300	ug/Kg	50	☼	8270D	Total/NA
2-Methylnaphthalene	11000		9800	2000	ug/Kg	50	☼	8270D	Total/NA
Acenaphthene	30000		9800	1400	ug/Kg	50	☼	8270D	Total/NA
Acenaphthylene	8500	J	9800	1300	ug/Kg	50	☼	8270D	Total/NA
Anthracene	52000		9800	2400	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]anthracene	75000		9800	980	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	74000	*1	9800	1400	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	77000	*1	9800	1600	ug/Kg	50	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN9 1-2.5 (Continued)
Lab Sample ID: 500-216192-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	56000		9800	1000	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	40000		9800	1300	ug/Kg	50	☼	8270D	Total/NA
Chrysene	87000		9800	2200	ug/Kg	50	☼	8270D	Total/NA
Dibenz(a,h)anthracene	16000		9800	1700	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene	190000		9800	1000	ug/Kg	50	☼	8270D	Total/NA
Fluorene	28000		9800	1200	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	48000		9800	1200	ug/Kg	50	☼	8270D	Total/NA
Naphthalene	20000		9800	1300	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene	250000		9800	1400	ug/Kg	50	☼	8270D	Total/NA
Pyrene	200000		9800	1200	ug/Kg	50	☼	8270D	Total/NA
Arsenic	5.3		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	86		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J B	0.22	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	17	B	1.1	0.54	mg/Kg	1	☼	6010C	Total/NA
Lead	34		0.54	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.25	J	0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.085		0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN9 4.5-6.5
Lab Sample ID: 500-216192-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	44		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.064	J B	0.22	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	10	B	1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	3.3		0.54	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.19	J	0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.0092	J	0.017	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN10 0-2.25
Lab Sample ID: 500-216192-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	18000	J	20000	3500	ug/Kg	50	☼	8270D	Total/NA
2-Methylnaphthalene	28000		10000	2100	ug/Kg	50	☼	8270D	Total/NA
Acenaphthene	67000		10000	1500	ug/Kg	50	☼	8270D	Total/NA
Acenaphthylene	22000		10000	1400	ug/Kg	50	☼	8270D	Total/NA
Anthracene	130000		10000	2600	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]anthracene	190000		10000	1000	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	170000	*1	10000	1500	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	200000	*1	10000	1700	ug/Kg	50	☼	8270D	Total/NA
Benzo[g,h,i]perylene	130000		10000	1100	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	100000		10000	1400	ug/Kg	50	☼	8270D	Total/NA
Chrysene	200000		10000	2300	ug/Kg	50	☼	8270D	Total/NA
Dibenz(a,h)anthracene	31000		10000	1800	ug/Kg	50	☼	8270D	Total/NA
Fluorene	77000		10000	1200	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	110000		10000	1300	ug/Kg	50	☼	8270D	Total/NA
Naphthalene	65000		10000	1400	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene - DL	510000		21000	2200	ug/Kg	100	☼	8270D	Total/NA
Phenanthrene - DL	540000		21000	3100	ug/Kg	100	☼	8270D	Total/NA
Pyrene - DL	460000		21000	2500	ug/Kg	100	☼	8270D	Total/NA
Arsenic	18		1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	81		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN10 0-2.25 (Continued) — Lab Sample ID: 500-216192-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.26	B	0.24	0.044	mg/Kg	1	☼	6010C	Total/NA
Chromium	16	B	1.2	0.60	mg/Kg	1	☼	6010C	Total/NA
Lead	33		0.61	0.28	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.23		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN10 8-9.5 — Lab Sample ID: 500-216192-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	72	J	200	21	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	77	J	200	29	ug/Kg	1	☼	8270D	Total/NA
Pyrene	77	J	200	23	ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.8		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	42		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.050	J B	0.21	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	17	B	1.1	0.53	mg/Kg	1	☼	6010C	Total/NA
Lead	3.4		0.54	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.21	J	0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.011	J	0.018	0.0060	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN11 0-2 — Lab Sample ID: 500-216192-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	3600	J	9700	970	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	4600	J *1	9700	1400	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	4900	J *1	9700	1500	ug/Kg	50	☼	8270D	Total/NA
Benzo[g,h,i]perylene	4600	J	9700	1000	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	2400	J	9700	1300	ug/Kg	50	☼	8270D	Total/NA
Chrysene	5700	J	9700	2200	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene	6000	J	9700	1000	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2600	J	9700	1200	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene	4300	J	9700	1400	ug/Kg	50	☼	8270D	Total/NA
Pyrene	6500	J	9700	1100	ug/Kg	50	☼	8270D	Total/NA
Arsenic	4.5		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	65		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Chromium	17	B	1.1	0.54	mg/Kg	1	☼	6010C	Total/NA
Lead	15		0.54	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.25	J	0.54	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.043		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN11 10.5-12 — Lab Sample ID: 500-216192-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8	F1	1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	83		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J B	0.22	0.040	mg/Kg	1	☼	6010C	Total/NA
Chromium	18		1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	6.1		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.38	J F1	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN12 3.5-4.5 — Lab Sample ID: 500-216192-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	470	J	2200	430	ug/Kg	10	☼	8270D	Total/NA
Acenaphthene	1800	J	2200	320	ug/Kg	10	☼	8270D	Total/NA
Anthracene	3600		2200	530	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	7200		2200	220	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	7200	*1	2200	320	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	7600	*1	2200	340	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	5500		2200	230	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	3200		2200	280	ug/Kg	10	☼	8270D	Total/NA
Chrysene	8500		2200	480	ug/Kg	10	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1300	J	2200	380	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	17000		2200	230	ug/Kg	10	☼	8270D	Total/NA
Fluorene	1700	J	2200	250	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	4200		2200	270	ug/Kg	10	☼	8270D	Total/NA
Naphthalene	890	J	2200	280	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	19000		2200	320	ug/Kg	10	☼	8270D	Total/NA
Pyrene	18000		2200	250	ug/Kg	10	☼	8270D	Total/NA
Arsenic	3.9		1.2	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	140		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	34		1.2	0.59	mg/Kg	1	☼	6010C	Total/NA
Lead	11		0.60	0.28	mg/Kg	1	☼	6010C	Total/NA
Silver	0.58	J	0.60	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.038		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN12 8-10 — Lab Sample ID: 500-216192-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.2		1.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	130		1.2	0.14	mg/Kg	1	☼	6010C	Total/NA
Chromium	33		1.2	0.62	mg/Kg	1	☼	6010C	Total/NA
Lead	8.4		0.62	0.29	mg/Kg	1	☼	6010C	Total/NA
Silver	0.52	J	0.62	0.16	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.024		0.020	0.0067	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN13 2.5-3.5 — Lab Sample ID: 500-216192-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	7000	J	10000	1000	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	10000	*1	10000	1500	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	7200	J *1	10000	1600	ug/Kg	50	☼	8270D	Total/NA
Benzo[g,h,i]perylene	9200	J	10000	1100	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	3600	J	10000	1300	ug/Kg	50	☼	8270D	Total/NA
Chrysene	9700	J	10000	2300	ug/Kg	50	☼	8270D	Total/NA
Dibenz(a,h)anthracene	1900	J	10000	1800	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene	9000	J	10000	1100	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	4400	J	10000	1300	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene	7200	J	10000	1500	ug/Kg	50	☼	8270D	Total/NA
Pyrene	11000		10000	1200	ug/Kg	50	☼	8270D	Total/NA
Arsenic	6.9		1.1	0.37	mg/Kg	1	☼	6010C	Total/NA
Barium	150		1.1	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J B	0.22	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	7.9		1.1	0.54	mg/Kg	1	☼	6010C	Total/NA
Lead	29		0.55	0.25	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN13 2.5-3.5 (Continued) — Lab Sample ID: 500-216192-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.20	J	0.55	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.036		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN14 0-2 — Lab Sample ID: 500-216192-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	71	J *1	220	34	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	70	J	220	23	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	34	J	220	27	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	58	J	220	32	ug/Kg	1	☼	8270D	Total/NA
Pyrene	75	J	220	25	ug/Kg	1	☼	8270D	Total/NA
Arsenic	10		1.2	0.39	mg/Kg	1	☼	6010C	Total/NA
Barium	130		1.2	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.095	J B	0.23	0.042	mg/Kg	1	☼	6010C	Total/NA
Chromium	5.6		1.2	0.57	mg/Kg	1	☼	6010C	Total/NA
Lead	8.1		0.58	0.27	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6		1.2	0.68	mg/Kg	1	☼	6010C	Total/NA
Silver	0.16	J	0.58	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.021		0.020	0.0066	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN15 0-1 — Lab Sample ID: 500-216192-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	960		940	120	ug/Kg	5	☼	8270D	Total/NA
Anthracene	640	J	940	230	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2800		940	94	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2200	*1	940	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2800	*1	940	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1300		940	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1300		940	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2800		940	210	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	450	J	940	170	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5700		940	100	ug/Kg	5	☼	8270D	Total/NA
Fluorene	260	J	940	110	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1400		940	120	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	320	J	940	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	3800		940	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	5100		940	110	ug/Kg	5	☼	8270D	Total/NA
Arsenic	2.0		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	46		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.043	J B	0.22	0.040	mg/Kg	1	☼	6010C	Total/NA
Chromium	12		1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	4.2		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.17	J	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.012	J	0.016	0.0055	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN16 0-1.5 — Lab Sample ID: 500-216192-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	430		84	30	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	120		84	32	ug/Kg	50	☼	8260B	Total/NA
Benzene	170		21	12	ug/Kg	50	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN16 0-1.5 (Continued)
Lab Sample ID: 500-216192-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	200		21	15	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	110		84	32	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	530		84	28	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	99		84	32	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	180		84	35	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	47	J	84	30	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	62	J	84	33	ug/Kg	50	☼	8260B	Total/NA
Toluene	640		21	12	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	1100		42	18	ug/Kg	50	☼	8260B	Total/NA
1-Methylnaphthalene	740		410	70	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	1400		210	42	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	230		210	31	ug/Kg	1	☼	8270D	Total/NA
Anthracene	420		210	52	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	900		210	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	760	*1	210	31	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1300	*1	210	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	580		210	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	440		210	27	ug/Kg	1	☼	8270D	Total/NA
Chrysene	1300		210	47	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	200	J	210	37	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	2200		210	22	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	590		210	26	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	770		210	27	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	2400		210	31	ug/Kg	1	☼	8270D	Total/NA
Pyrene	1800		210	25	ug/Kg	1	☼	8270D	Total/NA
Arsenic	7.0		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	130		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.12	J B	0.22	0.040	mg/Kg	1	☼	6010C	Total/NA
Chromium	3.5		1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	18		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.6		1.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Silver	0.25	J	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.060		0.020	0.0068	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN16 3.5-5
Lab Sample ID: 500-216192-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	760		140	50	ug/Kg	100	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	1900		140	53	ug/Kg	100	☼	8260B	Total/NA
p-Isopropyltoluene	560		140	50	ug/Kg	100	☼	8260B	Total/NA
sec-Butylbenzene	210		140	55	ug/Kg	100	☼	8260B	Total/NA
Xylenes, Total	110		69	30	ug/Kg	100	☼	8260B	Total/NA
2-Methylnaphthalene	6200		200	40	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	1400		200	29	ug/Kg	1	☼	8270D	Total/NA
Anthracene	520		200	49	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	210		200	21	ug/Kg	1	☼	8270D	Total/NA
Fluorene	2500		200	23	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	870		200	26	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	6100		200	29	ug/Kg	1	☼	8270D	Total/NA
Pyrene	410		200	23	ug/Kg	1	☼	8270D	Total/NA
1-Methylnaphthalene - DL	8000		1900	330	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN16 3.5-5 (Continued)
Lab Sample ID: 500-216192-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.9		1.0	0.34	mg/Kg	1	☼	6010C	Total/NA
Barium	46		1.0	0.11	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.042	J B	0.20	0.036	mg/Kg	1	☼	6010C	Total/NA
Chromium	14		1.0	0.49	mg/Kg	1	☼	6010C	Total/NA
Lead	3.5		0.50	0.23	mg/Kg	1	☼	6010C	Total/NA
Silver	0.23	J	0.50	0.13	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.010	J	0.018	0.0059	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN17 0-1.25
Lab Sample ID: 500-216192-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	370	J	970	130	ug/Kg	5	☼	8270D	Total/NA
Anthracene	240	J	970	240	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	1000		970	97	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	850	J *1	970	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	1300	K *1	970	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	530	J	970	100	ug/Kg	5	☼	8270D	Total/NA
Chrysene	1100		970	220	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	200	J	970	170	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	2200		970	100	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	520	J	970	120	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	230	J	970	130	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1800		970	140	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1800		970	110	ug/Kg	5	☼	8270D	Total/NA
Arsenic	3.2		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	62		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.070	J B	0.22	0.040	mg/Kg	1	☼	6010C	Total/NA
Chromium	13		1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	7.2		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.29	J	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.011	J	0.017	0.0057	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN18 0-1.5
Lab Sample ID: 500-216192-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	890		390	67	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	970		200	40	ug/Kg	1	☼	8270D	Total/NA
Anthracene	94	J	200	49	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	210	*1	200	29	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	300	*1	200	32	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	200		200	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	84	J	200	26	ug/Kg	1	☼	8270D	Total/NA
Chrysene	330		200	45	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	61	J	200	35	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	330		200	21	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	140	J	200	25	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	750		200	26	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	880		200	29	ug/Kg	1	☼	8270D	Total/NA
Pyrene	330		200	24	ug/Kg	1	☼	8270D	Total/NA
Arsenic	9.4		1.1	0.39	mg/Kg	1	☼	6010C	Total/NA
Barium	62		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	7.7		1.1	0.56	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: STN18 0-1.5 (Continued)
Lab Sample ID: 500-216192-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	31		0.57	0.26	mg/Kg	1	☼	6010C	Total/NA
Silver	0.16	J	0.57	0.15	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.046		0.019	0.0062	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN19 0-1
Lab Sample ID: 500-216192-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	570		360	62	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	660		190	37	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	86	J	190	24	ug/Kg	1	☼	8270D	Total/NA
Anthracene	95	J	190	46	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	360		190	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	330	*1	190	27	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	390	*1	190	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	180	J	190	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	220		190	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	420		190	42	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	65	J	190	33	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	780		190	20	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	200		190	23	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	480		190	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	740		190	27	ug/Kg	1	☼	8270D	Total/NA
Pyrene	610		190	22	ug/Kg	1	☼	8270D	Total/NA
Arsenic	4.6		0.96	0.33	mg/Kg	1	☼	6010C	Total/NA
Barium	47		0.96	0.11	mg/Kg	1	☼	6010C	Total/NA
Chromium	11		0.96	0.48	mg/Kg	1	☼	6010C	Total/NA
Lead	6.0		0.48	0.22	mg/Kg	1	☼	6010C	Total/NA
Silver	0.27	J	0.48	0.12	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.013	J	0.018	0.0058	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN20 0-1
Lab Sample ID: 500-216192-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	98	J	410	70	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	120	J	210	42	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	32	J	210	22	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	88	J	210	27	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	100	J	210	31	ug/Kg	1	☼	8270D	Total/NA
Pyrene	34	J	210	25	ug/Kg	1	☼	8270D	Total/NA
Arsenic	52		1.1	0.38	mg/Kg	1	☼	6010C	Total/NA
Barium	65		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.073	J B	0.22	0.040	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.0		1.1	0.55	mg/Kg	1	☼	6010C	Total/NA
Lead	12		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Selenium	3.8		1.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Silver	0.14	J	0.56	0.14	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.019		0.019	0.0064	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: STN20 1-3
Lab Sample ID: 500-216192-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	31		1.1	0.39	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN20 1-3 (Continued) — Lab Sample ID: 500-216192-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	10		1.1	0.13	mg/Kg	1	☼	6010C	Total/NA
Chromium	4.9		1.1	0.56	mg/Kg	1	☼	6010C	Total/NA
Lead	1.5		0.56	0.26	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.7		1.1	0.66	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 500-216192-35

No Detections.

Client Sample ID: STN-A — Lab Sample ID: 500-216192-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.66		0.50	0.050	mg/L	1		6010C	TCLP
Zinc	0.028	J	0.10	0.020	mg/L	1		6010C	TCLP
Cyanide, Total	0.17	J	0.30	0.15	mg/Kg	1	☼	9012B	Total/NA
pH	8.0		0.2	0.2	SU	1		9045D	Total/NA
Free Liquid	Pass				No Unit	1		9095B	Total/NA

Client Sample ID: STN-B — Lab Sample ID: 500-216192-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.60		0.50	0.050	mg/L	1		6010C	TCLP
Cadmium	0.0025	J	0.0050	0.0020	mg/L	1		6010C	TCLP
Zinc	0.37		0.10	0.020	mg/L	1		6010C	TCLP
Cyanide, Total	0.28	J	0.29	0.14	mg/Kg	1	☼	9012B	Total/NA
pH	8.1		0.2	0.2	SU	1		9045D	Total/NA
Phenolics, Total Recoverable	0.58	J	0.59	0.49	mg/Kg	1	☼	9066	Total/NA
Free Liquid	Pass				No Unit	1		9095B	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
6010C	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9012B	Cyanide, Total andor Amenable	SW846	TAL CHI
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
9066	Phenolics, Total Recoverable	SW846	TAL CHI
9095B	Paint Filter	SW846	TAL CHI
9251	Chlorine, Total	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
3550C	Ultrasonic Extraction	SW846	TAL BUF
5030B	Purge and Trap	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
5050	Bomb Preparation Method for Solid Waste	SW846	TAL SAV
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI
9010C	Cyanide, Distillation	SW846	TAL CHI
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL CHI
Distill/Phenol	Distillation, Phenolics	None	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency
None = None
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200
TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-216192-1	STN1 0.25-2.5	Solid	05/05/22 10:50	05/06/22 08:53
500-216192-2	STN1 4.5-6.5	Solid	05/05/22 10:55	05/06/22 08:53
500-216192-3	STN2 0-2.5	Solid	05/05/22 11:25	05/06/22 08:53
500-216192-4	FD1	Solid	05/05/22 11:26	05/06/22 08:53
500-216192-5	STN2 4-6	Solid	05/05/22 11:30	05/06/22 08:53
500-216192-6	STN3 0.25-2.5	Solid	05/05/22 10:15	05/06/22 08:53
500-216192-7	STN3 2.5-4	Solid	05/05/22 10:20	05/06/22 08:53
500-216192-8	STN4 0.5-2.5	Solid	05/05/22 09:20	05/06/22 08:53
500-216192-9	STN4 4-6	Solid	05/05/22 09:25	05/06/22 08:53
500-216192-10	STN5 2-4	Solid	05/05/22 08:50	05/06/22 08:53
500-216192-11	STN6 0-2	Solid	05/04/22 17:25	05/06/22 08:53
500-216192-12	STN6 8-10	Solid	05/04/22 17:30	05/06/22 08:53
500-216192-13	STN7 1.5-3	Solid	05/05/22 08:30	05/06/22 08:53
500-216192-14	STN7 4-6	Solid	05/05/22 08:35	05/06/22 08:53
500-216192-15	STN8 0-2.5	Solid	05/04/22 16:45	05/06/22 08:53
500-216192-16	STN8 6-8	Solid	05/04/22 16:50	05/06/22 08:53
500-216192-17	STN9 1-2.5	Solid	05/04/22 16:15	05/06/22 08:53
500-216192-18	STN9 4.5-6.5	Solid	05/04/22 16:20	05/06/22 08:53
500-216192-19	STN10 0-2.25	Solid	05/04/22 15:50	05/06/22 08:53
500-216192-20	STN10 8-9.5	Solid	05/04/22 15:55	05/06/22 08:53
500-216192-21	STN11 0-2	Solid	05/04/22 15:20	05/06/22 08:53
500-216192-22	STN11 10.5-12	Solid	05/04/22 15:25	05/06/22 08:53
500-216192-23	STN12 3.5-4.5	Solid	05/04/22 14:45	05/06/22 08:53
500-216192-24	STN12 8-10	Solid	05/04/22 14:50	05/06/22 08:53
500-216192-25	STN13 2.5-3.5	Solid	05/04/22 14:00	05/06/22 08:53
500-216192-26	STN14 0-2	Solid	05/04/22 13:35	05/06/22 08:53
500-216192-27	STN15 0-1	Solid	05/04/22 13:05	05/06/22 08:53
500-216192-28	STN16 0-1.5	Solid	05/04/22 09:55	05/06/22 08:53
500-216192-29	STN16 3.5-5	Solid	05/04/22 10:00	05/06/22 08:53
500-216192-30	STN17 0-1.25	Solid	05/04/22 12:45	05/06/22 08:53
500-216192-31	STN18 0-1.5	Solid	05/04/22 16:30	05/06/22 08:53
500-216192-32	STN19 0-1	Solid	05/04/22 12:15	05/06/22 08:53
500-216192-33	STN20 0-1	Solid	05/04/22 11:00	05/06/22 08:53
500-216192-34	STN20 1-3	Solid	05/04/22 11:05	05/06/22 08:53
500-216192-35	Trip Blank	Solid	05/04/22 00:00	05/06/22 08:53
500-216192-36	STN-A	Solid	05/05/22 13:00	05/06/22 08:53
500-216192-37	STN-B	Solid	05/05/22 14:00	05/06/22 08:53

Client Sample ID: STN1 0.25-2.5 **Lab Sample ID: 500-216192-1**
Date Collected: 05/05/22 10:50 **Matrix: Solid**
Date Received: 05/06/22 08:53 **Percent Solids: 77.1**

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<73		420	73	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
2-Methylnaphthalene	<43		220	43	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Anthracene	<54		220	54	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Benzo[a]anthracene	**97**	**J**	220	22	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Benzo[a]pyrene	**92**	**J**	220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Benzo[b]fluoranthene	**85**	**J**	220	34	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Benzo[g,h,i]perylene	**55**	**J**	220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Benzo[k]fluoranthene	**43**	**J**	220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Chrysene	**96**	**J**	220	49	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Dibenz(a,h)anthracene	<38		220	38	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Fluoranthene	**140**	**J**	220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Fluorene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Indeno[1,2,3-cd]pyrene	**48**	**J**	220	27	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Naphthalene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Phenanthrene	**120**	**J**	220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1
Pyrene	**130**	**J**	220	26	ug/Kg	☼	05/16/22 15:21	05/17/22 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*60 - 120*	*05/16/22 15:21*	*05/17/22 22:41*	*1*
Nitrobenzene-d5 (Surr)	*78*		*53 - 120*	*05/16/22 15:21*	*05/17/22 22:41*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*54 - 120*	*05/16/22 15:21*	*05/17/22 22:41*	*1*
2-Fluorophenol (Surr)	*66*		*52 - 120*	*05/16/22 15:21*	*05/17/22 22:41*	*1*
p-Terphenyl-d14 (Surr)	*93*		*79 - 130*	*05/16/22 15:21*	*05/17/22 22:41*	*1*
Phenol-d5 (Surr)	*69*		*54 - 120*	*05/16/22 15:21*	*05/17/22 22:41*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.4**	**F1**	1.3	0.44	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Barium	**100**		1.3	0.15	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Cadmium	<0.046		0.26	0.046	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Chromium	**37**	**B F1**	1.3	0.63	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Lead	**28**	**F1 F2**	0.64	0.30	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Selenium	<0.75	F1	1.3	0.75	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1
Silver	**0.43**	**J F1**	0.64	0.17	mg/Kg	☼	05/16/22 08:55	05/16/22 17:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.029**		0.021	0.0069	mg/Kg	☼	05/16/22 13:40	05/17/22 08:58	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN1 4.5-6.5
Date Collected: 05/05/22 10:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-2
Matrix: Solid
Percent Solids: 76.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<73		420	73	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
2-Methylnaphthalene	<44		220	44	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Anthracene	<54		220	54	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Benzo[a]pyrene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Benzo[b]fluoranthene	<35		220	35	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Benzo[g,h,i]perylene	<23		220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Benzo[k]fluoranthene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Chrysene	<49		220	49	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Dibenz(a,h)anthracene	<38		220	38	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Fluoranthene	<23		220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Fluorene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Indeno[1,2,3-cd]pyrene	<27		220	27	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Naphthalene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Phenanthrene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1
Pyrene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/17/22 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*60 - 120*	*05/16/22 15:21*	*05/17/22 23:05*	*1*
Nitrobenzene-d5 (Surr)	*75*		*53 - 120*	*05/16/22 15:21*	*05/17/22 23:05*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*54 - 120*	*05/16/22 15:21*	*05/17/22 23:05*	*1*
2-Fluorophenol (Surr)	*64*		*52 - 120*	*05/16/22 15:21*	*05/17/22 23:05*	*1*
p-Terphenyl-d14 (Surr)	*98*		*79 - 130*	*05/16/22 15:21*	*05/17/22 23:05*	*1*
Phenol-d5 (Surr)	*66*		*54 - 120*	*05/16/22 15:21*	*05/17/22 23:05*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.1**		1.3	0.43	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Barium	**160**		1.3	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Cadmium	<0.045		0.25	0.045	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Chromium	**36**	**B**	1.3	0.63	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Lead	**10**		0.63	0.29	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Selenium	<0.74		1.3	0.74	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1
Silver	**0.60**	**J**	0.63	0.16	mg/Kg	☼	05/16/22 08:55	05/16/22 17:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.020	0.0066	mg/Kg	☼	05/16/22 13:40	05/17/22 09:00	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN2 0-2.5
Date Collected: 05/05/22 11:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-3
Matrix: Solid
Percent Solids: 88.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<32		70	32	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1,1-Trichloroethane	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1,2,2-Tetrachloroethane	<28		70	28	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1,2-Trichloroethane	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1-Dichloroethane	<29		70	29	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1-Dichloroethene	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,1-Dichloropropene	<21		70	21	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2,3-Trichlorobenzene	<32		70	32	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2,3-Trichloropropane	<29		140	29	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2,4-Trichlorobenzene	<24		70	24	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2,4-Trimethylbenzene	**78**		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2-Dibromo-3-Chloropropane	<140		350	140	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2-Dibromoethane	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2-Dichlorobenzene	<23		70	23	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2-Dichloroethane	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,2-Dichloropropane	<30		70	30	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,3,5-Trimethylbenzene	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,3-Dichlorobenzene	<28		70	28	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,3-Dichloropropane	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
1,4-Dichlorobenzene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
2,2-Dichloropropane	<31		70	31	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
2-Chlorotoluene	<22		70	22	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
4-Chlorotoluene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Benzene	**26**		18	10	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Bromobenzene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Bromochloromethane	<30		70	30	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Dichlorobromomethane	<26		70	26	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Bromoform	<34		70	34	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Bromomethane	<56		210	56	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Carbon tetrachloride	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Chlorobenzene	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Chloroethane	<35		70	35	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Chloroform	<26		140	26	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Chloromethane	<22	*-	70	22	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
cis-1,2-Dichloroethene	<29		70	29	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
cis-1,3-Dichloropropene	<29		70	29	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Dibromochloromethane	<34		70	34	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Dibromomethane	<19		70	19	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Dichlorodifluoromethane	<47	*-	210	47	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Ethylbenzene	**56**		18	13	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Hexachlorobutadiene	<31		70	31	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Isopropyl ether	<19		70	19	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Isopropylbenzene	**35**	**J**	70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Methyl tert-butyl ether	<28		70	28	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Methylene Chloride	<110		350	110	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Naphthalene	**180**		70	23	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
n-Butylbenzene	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
N-Propylbenzene	**39**	**J**	70	29	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
p-Isopropyltoluene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN2 0-2.5
Date Collected: 05/05/22 11:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-3
Matrix: Solid
Percent Solids: 88.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<28		70	28	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Styrene	<27		70	27	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
tert-Butylbenzene	<28		70	28	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Tetrachloroethene	<26		70	26	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Toluene	**160**		18	10	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
trans-1,2-Dichloroethene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
trans-1,3-Dichloropropene	<25		70	25	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Trichloroethene	<11		35	11	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Trichlorofluoromethane	<30		70	30	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Vinyl chloride	<18		70	18	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50
Xylenes, Total	**280**		35	15	ug/Kg	☼	05/05/22 12:05	05/17/22 16:56	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*75 - 126*	*05/05/22 12:05*	*05/17/22 16:56*	*50*
4-Bromofluorobenzene (Surr)	*110*		*72 - 124*	*05/05/22 12:05*	*05/17/22 16:56*	*50*
Dibromofluoromethane (Surr)	*95*		*75 - 120*	*05/05/22 12:05*	*05/17/22 16:56*	*50*
Toluene-d8 (Surr)	*93*		*75 - 120*	*05/05/22 12:05*	*05/17/22 16:56*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<350		2000	350	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
2-Methylnaphthalene	**380**	**J**	1000	210	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Acenaphthene	**940**	**J**	1000	150	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Acenaphthylene	<130		1000	130	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Anthracene	**2600**		1000	250	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Benzo[a]anthracene	**2800**		1000	100	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Benzo[a]pyrene	**2300**		1000	150	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Benzo[b]fluoranthene	**2900**		1000	160	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Benzo[g,h,i]perylene	**1900**		1000	110	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Benzo[k]fluoranthene	**1000**		1000	130	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Chrysene	**3100**		1000	230	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Dibenz(a,h)anthracene	**460**	**J**	1000	180	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Fluoranthene	**6900**		1000	110	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Fluorene	**1200**		1000	120	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Indeno[1,2,3-cd]pyrene	**1300**		1000	130	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Naphthalene	<130		1000	130	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Phenanthrene	**9800**		1000	150	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5
Pyrene	**6500**		1000	120	ug/Kg	☼	05/16/22 15:21	05/17/22 23:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*60 - 120*	*05/16/22 15:21*	*05/17/22 23:29*	*5*
Nitrobenzene-d5 (Surr)	*55*		*53 - 120*	*05/16/22 15:21*	*05/17/22 23:29*	*5*
2,4,6-Tribromophenol (Surr)	*61*		*54 - 120*	*05/16/22 15:21*	*05/17/22 23:29*	*5*
2-Fluorophenol (Surr)	*41*	*S1-*	*52 - 120*	*05/16/22 15:21*	*05/17/22 23:29*	*5*
p-Terphenyl-d14 (Surr)	*67*	*S1-*	*79 - 130*	*05/16/22 15:21*	*05/17/22 23:29*	*5*
Phenol-d5 (Surr)	*45*	*S1-*	*54 - 120*	*05/16/22 15:21*	*05/17/22 23:29*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.7**		1.1	0.36	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN2 0-2.5
Date Collected: 05/05/22 11:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-3
Matrix: Solid
Percent Solids: 88.1

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	89		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1
Cadmium	0.14	J B	0.21	0.038	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1
Chromium	100	B	1.1	0.53	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1
Lead	30		0.53	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1
Selenium	0.79	J	1.1	0.63	mg/Kg	☼	05/16/22 08:55	05/16/22 18:03	1
Silver	<0.69		2.7	0.69	mg/Kg	☼	05/16/22 08:55	05/17/22 12:11	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.018	0.0061	mg/Kg	☼	05/16/22 13:40	05/17/22 09:02	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: FD1
Date Collected: 05/05/22 11:26
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-4
Matrix: Solid
Percent Solids: 88.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<32		69	32	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1,1-Trichloroethane	<26		69	26	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1,2,2-Tetrachloroethane	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1,2-Trichloroethane	<24		69	24	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1-Dichloroethane	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1-Dichloroethene	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,1-Dichloropropene	<21		69	21	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2,3-Trichlorobenzene	<32		69	32	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2,3-Trichloropropane	<29		140	29	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2,4-Trichlorobenzene	<24		69	24	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2,4-Trimethylbenzene	**68**	**J**	69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2-Dibromo-3-Chloropropane	<140		350	140	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2-Dibromoethane	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2-Dichlorobenzene	<23		69	23	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2-Dichloroethane	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,2-Dichloropropane	<30		69	30	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,3,5-Trimethylbenzene	<26		69	26	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,3-Dichlorobenzene	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,3-Dichloropropane	<25		69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
1,4-Dichlorobenzene	<25		69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
2,2-Dichloropropane	<31		69	31	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
2-Chlorotoluene	<22		69	22	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
4-Chlorotoluene	<24		69	24	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Benzene	**50**		17	10	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Bromobenzene	<25		69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Bromochloromethane	<30		69	30	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Dichlorobromomethane	<26		69	26	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Bromoform	<34		69	34	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Bromomethane	<55		210	55	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Carbon tetrachloride	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Chlorobenzene	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Chloroethane	<35		69	35	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Chloroform	<26		140	26	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Chloromethane	<22	*-	69	22	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
cis-1,2-Dichloroethene	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
cis-1,3-Dichloropropene	<29		69	29	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Dibromochloromethane	<34		69	34	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Dibromomethane	<19		69	19	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Dichlorodifluoromethane	<47	*-	210	47	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Ethylbenzene	**42**		17	13	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Hexachlorobutadiene	<31		69	31	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Isopropyl ether	<19		69	19	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Isopropylbenzene	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Methyl tert-butyl ether	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Methylene Chloride	<110		350	110	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Naphthalene	**150**		69	23	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
n-Butylbenzene	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
N-Propylbenzene	<29		69	29	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
p-Isopropyltoluene	<25		69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: FD1
Date Collected: 05/05/22 11:26
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-4
Matrix: Solid
Percent Solids: 88.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Styrene	<27		69	27	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
tert-Butylbenzene	<28		69	28	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Tetrachloroethene	<26		69	26	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Toluene	**150**		17	10	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
trans-1,2-Dichloroethene	<24		69	24	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
trans-1,3-Dichloropropene	<25		69	25	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Trichloroethene	<11		35	11	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Trichlorofluoromethane	<30		69	30	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Vinyl chloride	<18		69	18	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50
Xylenes, Total	**230**		35	15	ug/Kg	☼	05/05/22 11:26	05/17/22 17:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 126*	*05/05/22 11:26*	*05/17/22 17:20*	*50*
4-Bromofluorobenzene (Surr)	*110*		*72 - 124*	*05/05/22 11:26*	*05/17/22 17:20*	*50*
Dibromofluoromethane (Surr)	*94*		*75 - 120*	*05/05/22 11:26*	*05/17/22 17:20*	*50*
Toluene-d8 (Surr)	*93*		*75 - 120*	*05/05/22 11:26*	*05/17/22 17:20*	*50*

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN2 4-6
Date Collected: 05/05/22 11:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-5
Matrix: Solid
Percent Solids: 77.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<72		420	72	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
2-Methylnaphthalene	<43		220	43	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Anthracene	<53		220	53	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Benzo[a]pyrene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Benzo[b]fluoranthene	<34		220	34	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Benzo[g,h,i]perylene	<23		220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Benzo[k]fluoranthene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Chrysene	<48		220	48	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Dibenz(a,h)anthracene	<38		220	38	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Fluoranthene	<23		220	23	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Fluorene	<25		220	25	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Indeno[1,2,3-cd]pyrene	<27		220	27	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Naphthalene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Phenanthrene	<32		220	32	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1
Pyrene	<25		220	25	ug/Kg	☼	05/16/22 15:21	05/17/22 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*60 - 120*	*05/16/22 15:21*	*05/17/22 23:54*	*1*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*05/16/22 15:21*	*05/17/22 23:54*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*54 - 120*	*05/16/22 15:21*	*05/17/22 23:54*	*1*
2-Fluorophenol (Surr)	*69*		*52 - 120*	*05/16/22 15:21*	*05/17/22 23:54*	*1*
p-Terphenyl-d14 (Surr)	*105*		*79 - 130*	*05/16/22 15:21*	*05/17/22 23:54*	*1*
Phenol-d5 (Surr)	*81*		*54 - 120*	*05/16/22 15:21*	*05/17/22 23:54*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.5**		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Barium	**200**		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Cadmium	<0.039		0.22	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Chromium	**32**	**B**	1.1	0.54	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Lead	**11**		0.55	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1
Silver	**0.64**		0.55	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020	0.0067	mg/Kg	☼	05/16/22 13:40	05/17/22 09:04	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN3 0.25-2.5
Date Collected: 05/05/22 10:15
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-6
Matrix: Solid
Percent Solids: 87.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<64		370	64	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
2-Methylnaphthalene	<38		190	38	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Acenaphthene	<28		190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Acenaphthylene	<25		190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Anthracene	<47		190	47	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Benzo[a]anthracene	<19		190	19	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Benzo[a]pyrene	<28		190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Benzo[b]fluoranthene	<30		190	30	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Benzo[g,h,i]perylene	<20		190	20	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Benzo[k]fluoranthene	<25		190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Chrysene	<42		190	42	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Dibenz(a,h)anthracene	<34		190	34	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Fluoranthene	<20		190	20	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Fluorene	<22		190	22	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Indeno[1,2,3-cd]pyrene	<23		190	23	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Naphthalene	<25		190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Phenanthrene	<28		190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1
Pyrene	<22		190	22	ug/Kg	☼	05/16/22 15:21	05/18/22 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*60 - 120*	*05/16/22 15:21*	*05/18/22 00:19*	*1*
Nitrobenzene-d5 (Surr)	*53*		*53 - 120*	*05/16/22 15:21*	*05/18/22 00:19*	*1*
2,4,6-Tribromophenol (Surr)	*79*		*54 - 120*	*05/16/22 15:21*	*05/18/22 00:19*	*1*
2-Fluorophenol (Surr)	*55*		*52 - 120*	*05/16/22 15:21*	*05/18/22 00:19*	*1*
p-Terphenyl-d14 (Surr)	*89*		*79 - 130*	*05/16/22 15:21*	*05/18/22 00:19*	*1*
Phenol-d5 (Surr)	*63*		*54 - 120*	*05/16/22 15:21*	*05/18/22 00:19*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**		1.0	0.35	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Barium	**55**		1.0	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Cadmium	<0.036		0.20	0.036	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Chromium	**23**	**B**	1.0	0.50	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Lead	**6.8**		0.51	0.23	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Selenium	<0.60		1.0	0.60	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1
Silver	**0.16**	**J**	0.51	0.13	mg/Kg	☼	05/16/22 08:55	05/16/22 18:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**		0.018	0.0061	mg/Kg	☼	05/16/22 13:40	05/17/22 09:06	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN3 2.5-4
Date Collected: 05/05/22 10:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-7
Matrix: Solid
Percent Solids: 79.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<71		410	71	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
2-Methylnaphthalene	<43		210	43	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Acenaphthene	<31		210	31	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Acenaphthylene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Anthracene	<53		210	53	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Benzo[a]anthracene	<21		210	21	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Benzo[a]pyrene	<31		210	31	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Benzo[b]fluoranthene	<34		210	34	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Benzo[g,h,i]perylene	<23		210	23	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Benzo[k]fluoranthene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Chrysene	<48		210	48	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Dibenz(a,h)anthracene	<38		210	38	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Fluoranthene	<23		210	23	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Fluorene	<25		210	25	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Indeno[1,2,3-cd]pyrene	<26		210	26	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Naphthalene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Phenanthrene	<31		210	31	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1
Pyrene	<25		210	25	ug/Kg	☼	05/16/22 15:21	05/18/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*60 - 120*	*05/16/22 15:21*	*05/18/22 00:43*	*1*
Nitrobenzene-d5 (Surr)	*82*		*53 - 120*	*05/16/22 15:21*	*05/18/22 00:43*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*54 - 120*	*05/16/22 15:21*	*05/18/22 00:43*	*1*
2-Fluorophenol (Surr)	*65*		*52 - 120*	*05/16/22 15:21*	*05/18/22 00:43*	*1*
p-Terphenyl-d14 (Surr)	*97*		*79 - 130*	*05/16/22 15:21*	*05/18/22 00:43*	*1*
Phenol-d5 (Surr)	*68*		*54 - 120*	*05/16/22 15:21*	*05/18/22 00:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		1.2	0.43	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Barium	**160**		1.2	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Cadmium	<0.045		0.25	0.045	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Chromium	**40**	**B**	1.2	0.62	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Lead	**8.6**		0.62	0.29	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Selenium	<0.73		1.2	0.73	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1
Silver	**0.59**	**J**	0.62	0.16	mg/Kg	☼	05/16/22 08:55	05/16/22 18:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.030**		0.019	0.0064	mg/Kg	☼	05/16/22 13:40	05/17/22 09:11	1

Client Sample ID: STN4 0.5-2.5
Date Collected: 05/05/22 09:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-8
Matrix: Solid
Percent Solids: 80.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<75		430	75	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
2-Methylnaphthalene	<45		220	45	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Acenaphthene	<33		220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Acenaphthylene	<29		220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Anthracene	<55		220	55	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Benzo[a]pyrene	**44**	**J**	220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Benzo[b]fluoranthene	**80**	**J**	220	36	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Benzo[g,h,i]perylene	**46**	**J**	220	24	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Benzo[k]fluoranthene	**41**	**J**	220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Chrysene	**130**	**J**	220	50	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Dibenz(a,h)anthracene	<39		220	39	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Fluoranthene	**96**	**J**	220	24	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Fluorene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Indeno[1,2,3-cd]pyrene	<28		220	28	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Naphthalene	<29		220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Phenanthrene	**74**	**J**	220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1
Pyrene	**96**	**J**	220	26	ug/Kg	☼	05/16/22 15:21	05/18/22 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*42*	*S1-*	*60 - 120*	*05/16/22 15:21*	*05/18/22 01:07*	*1*
Nitrobenzene-d5 (Surr)	*38*	*S1-*	*53 - 120*	*05/16/22 15:21*	*05/18/22 01:07*	*1*
2,4,6-Tribromophenol (Surr)	*45*	*S1-*	*54 - 120*	*05/16/22 15:21*	*05/18/22 01:07*	*1*
2-Fluorophenol (Surr)	*31*	*S1-*	*52 - 120*	*05/16/22 15:21*	*05/18/22 01:07*	*1*
p-Terphenyl-d14 (Surr)	*52*	*S1-*	*79 - 130*	*05/16/22 15:21*	*05/18/22 01:07*	*1*
Phenol-d5 (Surr)	*33*	*S1-*	*54 - 120*	*05/16/22 15:21*	*05/18/22 01:07*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.2**		1.2	0.41	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1
Barium	**100**		1.2	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1
Cadmium	<0.043		0.24	0.043	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1
Chromium	**15**	**B**	1.1	0.56	mg/Kg	☼	05/17/22 15:26	05/19/22 14:36	1
Lead	**47**		0.60	0.28	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1
Selenium	<0.70		1.2	0.70	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1
Silver	<0.15		0.60	0.15	mg/Kg	☼	05/16/22 08:55	05/16/22 18:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.40**		0.019	0.0063	mg/Kg	☼	05/16/22 13:40	05/17/22 09:13	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN4 4-6
Date Collected: 05/05/22 09:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-9
Matrix: Solid
Percent Solids: 79.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<72		420	72	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
2-Methylnaphthalene	<43		210	43	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Acenaphthene	<32		210	32	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Acenaphthylene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Anthracene	<53		210	53	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Benzo[a]anthracene	<21		210	21	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Benzo[a]pyrene	<32		210	32	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Benzo[b]fluoranthene	<34		210	34	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Benzo[g,h,i]perylene	<23		210	23	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Benzo[k]fluoranthene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Chrysene	<48		210	48	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Dibenz(a,h)anthracene	<38		210	38	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Fluoranthene	<23		210	23	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Fluorene	<25		210	25	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Indeno[1,2,3-cd]pyrene	<26		210	26	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Naphthalene	<28		210	28	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Phenanthrene	<32		210	32	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1
Pyrene	<25		210	25	ug/Kg	☼	05/16/22 15:21	05/18/22 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*60 - 120*	*05/16/22 15:21*	*05/18/22 01:31*	*1*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*05/16/22 15:21*	*05/18/22 01:31*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*54 - 120*	*05/16/22 15:21*	*05/18/22 01:31*	*1*
2-Fluorophenol (Surr)	*65*		*52 - 120*	*05/16/22 15:21*	*05/18/22 01:31*	*1*
p-Terphenyl-d14 (Surr)	*110*		*79 - 130*	*05/16/22 15:21*	*05/18/22 01:31*	*1*
Phenol-d5 (Surr)	*68*		*54 - 120*	*05/16/22 15:21*	*05/18/22 01:31*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.9**		1.1	0.39	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Barium	**180**		1.1	0.13	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Cadmium	<0.041		0.23	0.041	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Chromium	**46**	**B**	1.1	0.56	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Lead	**10**		0.57	0.26	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Selenium	<0.67		1.1	0.67	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1
Silver	**0.55**	**J**	0.57	0.15	mg/Kg	☼	05/16/22 08:55	05/16/22 18:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.025**		0.020	0.0067	mg/Kg	☼	05/16/22 13:40	05/17/22 09:15	1

Client Sample ID: STN5 2-4

Date Collected: 05/05/22 08:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-10

Matrix: Solid
Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<1300		7800	1300	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
2-Methylnaphthalene	**810**	**J**	4000	800	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Acenaphthene	**2100**	**J**	4000	590	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Acenaphthylene	<520		4000	520	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Anthracene	**5200**		4000	990	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Benzo[a]anthracene	**12000**		4000	400	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Benzo[a]pyrene	**11000**		4000	590	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Benzo[b]fluoranthene	**12000**		4000	640	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Benzo[g,h,i]perylene	**6800**		4000	430	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Benzo[k]fluoranthene	**7700**		4000	520	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Chrysene	**14000**		4000	900	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Dibenz(a,h)anthracene	**2200**	**J**	4000	710	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Fluoranthene	**25000**		4000	430	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Fluorene	**2300**	**J**	4000	470	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Indeno[1,2,3-cd]pyrene	**5900**		4000	500	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Naphthalene	<520		4000	520	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Phenanthrene	**23000**		4000	590	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20
Pyrene	**21000**		4000	470	ug/Kg	☼	05/16/22 15:21	05/18/22 01:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*46*	*S1-*	*60 - 120*	*05/16/22 15:21*	*05/18/22 01:55*	*20*
Nitrobenzene-d5 (Surr)	*48*	*S1-*	*53 - 120*	*05/16/22 15:21*	*05/18/22 01:55*	*20*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/16/22 15:21*	*05/18/22 01:55*	*20*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/16/22 15:21*	*05/18/22 01:55*	*20*
p-Terphenyl-d14 (Surr)	*47*	*S1-*	*79 - 130*	*05/16/22 15:21*	*05/18/22 01:55*	*20*
Phenol-d5 (Surr)	*46*	*S1-*	*54 - 120*	*05/16/22 15:21*	*05/18/22 01:55*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**14**		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1
Barium	**220**		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1
Cadmium	**1.5**	**B**	0.22	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1
Chromium	**12**	**B**	1.1	0.55	mg/Kg	☼	05/17/22 15:26	05/19/22 14:52	1
Lead	**800**		0.55	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1
Selenium	**1.6**		1.1	0.64	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1
Silver	**0.43**	**J**	0.55	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.14**		0.019	0.0062	mg/Kg	☼	05/16/22 13:40	05/17/22 09:23	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN6 0-2
Date Collected: 05/04/22 17:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-11
Matrix: Solid
Percent Solids: 67.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<830		4800	830	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
2-Methylnaphthalene	**530**	**J**	2500	500	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Acenaphthene	<370		2500	370	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Acenaphthylene	<320		2500	320	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Anthracene	<610		2500	610	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Benzo[a]anthracene	**1000**	**J**	2500	250	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Benzo[a]pyrene	**1200**	**J**	2500	370	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Benzo[b]fluoranthene	**1600**	**J**	2500	390	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Benzo[g,h,i]perylene	**1300**	**J**	2500	260	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Benzo[k]fluoranthene	**690**	**J**	2500	320	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Chrysene	**1700**	**J**	2500	560	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Dibenz(a,h)anthracene	<440		2500	440	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Fluoranthene	**1700**	**J**	2500	260	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Fluorene	<290		2500	290	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Indeno[1,2,3-cd]pyrene	**900**	**J**	2500	310	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Naphthalene	**480**	**J**	2500	320	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Phenanthrene	**1600**	**J**	2500	370	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10
Pyrene	**1600**	**J**	2500	290	ug/Kg	☼	05/16/22 15:21	05/18/22 16:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*60 - 120*	*05/16/22 15:21*	*05/18/22 16:19*	*10*
Nitrobenzene-d5 (Surr)	*82*		*53 - 120*	*05/16/22 15:21*	*05/18/22 16:19*	*10*
2,4,6-Tribromophenol (Surr)	*104*		*54 - 120*	*05/16/22 15:21*	*05/18/22 16:19*	*10*
2-Fluorophenol (Surr)	*68*		*52 - 120*	*05/16/22 15:21*	*05/18/22 16:19*	*10*
p-Terphenyl-d14 (Surr)	*104*		*79 - 130*	*05/16/22 15:21*	*05/18/22 16:19*	*10*
Phenol-d5 (Surr)	*74*		*54 - 120*	*05/16/22 15:21*	*05/18/22 16:19*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.8**		1.4	0.48	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1
Barium	**100**		1.4	0.16	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1
Cadmium	**0.23**	**J B**	0.28	0.050	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1
Chromium	**9.1**	**B**	1.5	0.72	mg/Kg	☼	05/17/22 15:26	05/19/22 14:55	1
Lead	**24**		0.70	0.32	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1
Selenium	<0.82		1.4	0.82	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1
Silver	**0.18**	**J**	0.70	0.18	mg/Kg	☼	05/16/22 08:55	05/16/22 18:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.036**		0.023	0.0077	mg/Kg	☼	05/16/22 13:40	05/17/22 09:25	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN6 8-10
Date Collected: 05/04/22 17:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-12
Matrix: Solid
Percent Solids: 74.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<75		430	75	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
2-Methylnaphthalene	<44		220	44	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Acenaphthene	<33		220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Acenaphthylene	<29		220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Anthracene	<55		220	55	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Benzo[a]pyrene	<33		220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Benzo[b]fluoranthene	<35		220	35	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Benzo[g,h,i]perylene	<24		220	24	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Benzo[k]fluoranthene	<29		220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Chrysene	<50		220	50	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Dibenz(a,h)anthracene	<39		220	39	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Fluoranthene	<24		220	24	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Fluorene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Indeno[1,2,3-cd]pyrene	<27		220	27	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Naphthalene	<29		220	29	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Phenanthrene	<33		220	33	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1
Pyrene	<26		220	26	ug/Kg	☼	05/16/22 15:21	05/18/22 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*60 - 120*	*05/16/22 15:21*	*05/18/22 02:43*	*1*
Nitrobenzene-d5 (Surr)	*79*		*53 - 120*	*05/16/22 15:21*	*05/18/22 02:43*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*54 - 120*	*05/16/22 15:21*	*05/18/22 02:43*	*1*
2-Fluorophenol (Surr)	*65*		*52 - 120*	*05/16/22 15:21*	*05/18/22 02:43*	*1*
p-Terphenyl-d14 (Surr)	*93*		*79 - 130*	*05/16/22 15:21*	*05/18/22 02:43*	*1*
Phenol-d5 (Surr)	*72*		*54 - 120*	*05/16/22 15:21*	*05/18/22 02:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.9**		1.2	0.40	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Barium	**160**		1.2	0.13	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Cadmium	<0.042		0.24	0.042	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Chromium	**39**	**B**	1.2	0.58	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Lead	**9.9**		0.59	0.27	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Selenium	<0.69		1.2	0.69	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1
Silver	**0.59**		0.59	0.15	mg/Kg	☼	05/16/22 08:55	05/16/22 18:35	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.025**		0.021	0.0070	mg/Kg	☼	05/16/22 13:40	05/17/22 09:27	1

Client Sample ID: STN7 1.5-3
Date Collected: 05/05/22 08:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-13
Matrix: Solid
Percent Solids: 88.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	110	J	370	64	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
2-Methylnaphthalene	160	J	190	38	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Acenaphthene	160	J	190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Acenaphthylene	49	J	190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Anthracene	470		190	47	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Benzo[a]anthracene	1200		190	19	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Benzo[a]pyrene	1000		190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Benzo[b]fluoranthene	1300		190	30	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Benzo[g,h,i]perylene	770		190	20	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Benzo[k]fluoranthene	690		190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Chrysene	1500		190	43	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Dibenz(a,h)anthracene	240		190	34	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Fluoranthene	2300		190	20	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Fluorene	170	J	190	22	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Indeno[1,2,3-cd]pyrene	690		190	24	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Naphthalene	110	J	190	25	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Phenanthrene	2000		190	28	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1
Pyrene	2300		190	22	ug/Kg	☼	05/16/22 15:21	05/18/22 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*89*		*60 - 120*	*05/16/22 15:21*	*05/18/22 03:07*	*1*
Nitrobenzene-d5 (Surr)	*86*		*53 - 120*	*05/16/22 15:21*	*05/18/22 03:07*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*54 - 120*	*05/16/22 15:21*	*05/18/22 03:07*	*1*
2-Fluorophenol (Surr)	*67*		*52 - 120*	*05/16/22 15:21*	*05/18/22 03:07*	*1*
p-Terphenyl-d14 (Surr)	*98*		*79 - 130*	*05/16/22 15:21*	*05/18/22 03:07*	*1*
Phenol-d5 (Surr)	*77*		*54 - 120*	*05/16/22 15:21*	*05/18/22 03:07*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		0.98	0.34	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Barium	130		0.98	0.11	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Cadmium	0.32	B	0.20	0.035	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Chromium	18	B	0.98	0.49	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Lead	15		0.49	0.23	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Selenium	1.0		0.98	0.58	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1
Silver	0.36	J	0.49	0.13	mg/Kg	☼	05/16/22 08:55	05/16/22 18:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.018	0.0061	mg/Kg	☼	05/16/22 13:40	05/17/22 09:29	1

Client Sample ID: STN7 4-6
Date Collected: 05/05/22 08:35
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-14
Matrix: Solid
Percent Solids: 77.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<73		430	73	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
2-Methylnaphthalene	<44		220	44	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Anthracene	<54		220	54	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Benzo[a]pyrene	<32	*1	220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Benzo[b]fluoranthene	<35	*1	220	35	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Benzo[g,h,i]perylene	<23		220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Benzo[k]fluoranthene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Chrysene	<49		220	49	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Dibenz(a,h)anthracene	<39		220	39	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Fluoranthene	<23		220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Fluorene	<26		220	26	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Indeno[1,2,3-cd]pyrene	<27		220	27	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Naphthalene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Phenanthrene	<32		220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1
Pyrene	<26		220	26	ug/Kg	☼	05/17/22 15:29	05/18/22 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*60 - 120*	*05/17/22 15:29*	*05/18/22 18:00*	*1*
Nitrobenzene-d5 (Surr)	*85*		*53 - 120*	*05/17/22 15:29*	*05/18/22 18:00*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*54 - 120*	*05/17/22 15:29*	*05/18/22 18:00*	*1*
2-Fluorophenol (Surr)	*66*		*52 - 120*	*05/17/22 15:29*	*05/18/22 18:00*	*1*
p-Terphenyl-d14 (Surr)	*108*		*79 - 130*	*05/17/22 15:29*	*05/18/22 18:00*	*1*
Phenol-d5 (Surr)	*75*		*54 - 120*	*05/17/22 15:29*	*05/18/22 18:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.9**		1.2	0.41	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Barium	**180**		1.2	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Cadmium	<0.043		0.24	0.043	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Chromium	**39**	**B**	1.2	0.59	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Lead	**10**		0.60	0.28	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Selenium	<0.70		1.2	0.70	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1
Silver	**0.85**		0.60	0.15	mg/Kg	☼	05/16/22 08:55	05/16/22 18:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020	0.0067	mg/Kg	☼	05/16/22 13:40	05/17/22 09:34	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN8 0-2.5
Date Collected: 05/04/22 16:45
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-15
Matrix: Solid
Percent Solids: 78.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<14000		83000	14000	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
2-Methylnaphthalene	<8600		43000	8600	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Acenaphthene	<6300		43000	6300	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Acenaphthylene	<5500		43000	5500	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Anthracene	<11000		43000	11000	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Benzo[a]anthracene	<4300		43000	4300	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Benzo[a]pyrene	<6300	*1	43000	6300	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Benzo[b]fluoranthene	<6800	*1	43000	6800	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Benzo[g,h,i]perylene	**8800**	**J**	43000	4500	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Benzo[k]fluoranthene	<5500		43000	5500	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Chrysene	<9600		43000	9600	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Dibenz(a,h)anthracene	<7600		43000	7600	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Fluoranthene	<4500		43000	4500	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Fluorene	<5000		43000	5000	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Indeno[1,2,3-cd]pyrene	<5300		43000	5300	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Naphthalene	<5500		43000	5500	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Phenanthrene	**8400**	**J**	43000	6300	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20
Pyrene	**5900**	**J**	43000	5000	ug/Kg	☼	05/17/22 15:29	05/18/22 18:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/18/22 18:25*	*20*
Nitrobenzene-d5 (Surr)	*0*	*S1-*	*53 - 120*	*05/17/22 15:29*	*05/18/22 18:25*	*20*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 18:25*	*20*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 18:25*	*20*
p-Terphenyl-d14 (Surr)	*0*	*S1-*	*79 - 130*	*05/17/22 15:29*	*05/18/22 18:25*	*20*
Phenol-d5 (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 18:25*	*20*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.5**		1.3	0.43	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1
Barium	**140**		1.3	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1
Cadmium	**0.23**	**J B**	0.25	0.045	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1
Chromium	**8.5**	**B**	1.2	0.60	mg/Kg	☼	05/17/22 15:26	05/19/22 14:59	1
Lead	**46**		0.63	0.29	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1
Selenium	**1.6**		1.3	0.74	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1
Silver	<0.16		0.63	0.16	mg/Kg	☼	05/16/22 08:55	05/16/22 18:45	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.047**		0.020	0.0065	mg/Kg	☼	05/16/22 13:40	05/17/22 09:36	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN8 6-8
Date Collected: 05/04/22 16:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-16
Matrix: Solid
Percent Solids: 76.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<73		420	73	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
2-Methylnaphthalene	<43		220	43	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Anthracene	<53		220	53	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Benzo[a]pyrene	<32	*1	220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Benzo[b]fluoranthene	<34	*1	220	34	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Benzo[g,h,i]perylene	<23		220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Benzo[k]fluoranthene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Chrysene	<48		220	48	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Dibenz(a,h)anthracene	<38		220	38	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Fluoranthene	<23		220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Fluorene	<25		220	25	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Indeno[1,2,3-cd]pyrene	<27		220	27	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Naphthalene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Phenanthrene	<32		220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1
Pyrene	<25		220	25	ug/Kg	☼	05/17/22 15:29	05/18/22 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*60 - 120*	*05/17/22 15:29*	*05/18/22 18:49*	*1*
Nitrobenzene-d5 (Surr)	*79*		*53 - 120*	*05/17/22 15:29*	*05/18/22 18:49*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*54 - 120*	*05/17/22 15:29*	*05/18/22 18:49*	*1*
2-Fluorophenol (Surr)	*63*		*52 - 120*	*05/17/22 15:29*	*05/18/22 18:49*	*1*
p-Terphenyl-d14 (Surr)	*101*		*79 - 130*	*05/17/22 15:29*	*05/18/22 18:49*	*1*
Phenol-d5 (Surr)	*69*		*54 - 120*	*05/17/22 15:29*	*05/18/22 18:49*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		1.1	0.38	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Barium	**160**		1.1	0.13	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Cadmium	<0.040		0.22	0.040	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Chromium	**39**	**B**	1.1	0.56	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Lead	**9.3**		0.56	0.26	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Selenium	<0.66		1.1	0.66	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1
Silver	**0.51**	**J**	0.56	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.020	0.0068	mg/Kg	☼	05/16/22 13:40	05/17/22 09:38	1

Client Sample ID: STN9 1-2.5
Date Collected: 05/04/22 16:15
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-17
Matrix: Solid
Percent Solids: 84.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	11000	J	19000	3300	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
2-Methylnaphthalene	11000		9800	2000	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Acenaphthene	30000		9800	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Acenaphthylene	8500	J	9800	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Anthracene	52000		9800	2400	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Benzo[a]anthracene	75000		9800	980	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Benzo[a]pyrene	74000	*1	9800	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Benzo[b]fluoranthene	77000	*1	9800	1600	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Benzo[g,h,i]perylene	56000		9800	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Benzo[k]fluoranthene	40000		9800	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Chrysene	87000		9800	2200	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Dibenz(a,h)anthracene	16000		9800	1700	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Fluoranthene	190000		9800	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Fluorene	28000		9800	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Indeno[1,2,3-cd]pyrene	48000		9800	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Naphthalene	20000		9800	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Phenanthrene	250000		9800	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50
Pyrene	200000		9800	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 19:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/18/22 19:14*	*50*
Nitrobenzene-d5 (Surr)	*0*	*S1-*	*53 - 120*	*05/17/22 15:29*	*05/18/22 19:14*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 19:14*	*50*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 19:14*	*50*
p-Terphenyl-d14 (Surr)	*0*	*S1-*	*79 - 130*	*05/17/22 15:29*	*05/18/22 19:14*	*50*
Phenol-d5 (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 19:14*	*50*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Barium	86		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Cadmium	0.14	J B	0.22	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Chromium	17	B	1.1	0.54	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Lead	34		0.54	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1
Silver	0.25	J	0.54	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 18:58	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.085		0.018	0.0059	mg/Kg	☼	05/16/22 13:40	05/17/22 09:40	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN9 4.5-6.5
Date Collected: 05/04/22 16:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-18
Matrix: Solid
Percent Solids: 84.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<66		380	66	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
2-Methylnaphthalene	<40		200	40	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Acenaphthene	<29		200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Acenaphthylene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Anthracene	<49		200	49	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Benzo[a]pyrene	<29	*1	200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Benzo[b]fluoranthene	<31	*1	200	31	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Benzo[g,h,i]perylene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Benzo[k]fluoranthene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Chrysene	<44		200	44	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Dibenz(a,h)anthracene	<35		200	35	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Fluoranthene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Fluorene	<23		200	23	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Indeno[1,2,3-cd]pyrene	<24		200	24	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Naphthalene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Phenanthrene	<29		200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1
Pyrene	<23		200	23	ug/Kg	☼	05/17/22 15:29	05/18/22 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*60 - 120*	*05/17/22 15:29*	*05/18/22 19:37*	*1*
Nitrobenzene-d5 (Surr)	*84*		*53 - 120*	*05/17/22 15:29*	*05/18/22 19:37*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*54 - 120*	*05/17/22 15:29*	*05/18/22 19:37*	*1*
2-Fluorophenol (Surr)	*65*		*52 - 120*	*05/17/22 15:29*	*05/18/22 19:37*	*1*
p-Terphenyl-d14 (Surr)	*104*		*79 - 130*	*05/17/22 15:29*	*05/18/22 19:37*	*1*
Phenol-d5 (Surr)	*73*		*54 - 120*	*05/17/22 15:29*	*05/18/22 19:37*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.1**		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1
Barium	**44**		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1
Cadmium	**0.064**	**J B**	0.22	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1
Chromium	**10**	**B**	1.1	0.55	mg/Kg	☼	05/17/22 15:26	05/19/22 15:02	1
Lead	**3.3**		0.54	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1
Silver	**0.19**	**J**	0.54	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 19:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0092**	**J**	0.017	0.0058	mg/Kg	☼	05/16/22 13:40	05/17/22 09:42	1

Client Sample ID: STN10 0-2.25

Date Collected: 05/04/22 15:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-19

Matrix: Solid
Percent Solids: 79.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	18000	J	20000	3500	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
2-Methylnaphthalene	28000		10000	2100	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Acenaphthene	67000		10000	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Acenaphthylene	22000		10000	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Anthracene	130000		10000	2600	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Benzo[a]anthracene	190000		10000	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Benzo[a]pyrene	170000	*1	10000	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Benzo[b]fluoranthene	200000	*1	10000	1700	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Benzo[g,h,i]perylene	130000		10000	1100	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Benzo[k]fluoranthene	100000		10000	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Chrysene	200000		10000	2300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Dibenz(a,h)anthracene	31000		10000	1800	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Fluorene	77000		10000	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Indeno[1,2,3-cd]pyrene	110000		10000	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50
Naphthalene	65000		10000	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/18/22 20:01*	*50*
Nitrobenzene-d5 (Surr)	*93*		*53 - 120*	*05/17/22 15:29*	*05/18/22 20:01*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 20:01*	*50*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 20:01*	*50*
p-Terphenyl-d14 (Surr)	*115*		*79 - 130*	*05/17/22 15:29*	*05/18/22 20:01*	*50*
Phenol-d5 (Surr)	*76*		*54 - 120*	*05/17/22 15:29*	*05/18/22 20:01*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	510000		21000	2200	ug/Kg	☼	05/17/22 15:29	05/20/22 15:39	100
Phenanthrene	540000		21000	3100	ug/Kg	☼	05/17/22 15:29	05/20/22 15:39	100
Pyrene	460000		21000	2500	ug/Kg	☼	05/17/22 15:29	05/20/22 15:39	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/20/22 15:39*	*100*
Nitrobenzene-d5 (Surr)	*0*	*S1-*	*53 - 120*	*05/17/22 15:29*	*05/20/22 15:39*	*100*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/20/22 15:39*	*100*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/20/22 15:39*	*100*
p-Terphenyl-d14 (Surr)	*7*	*S1-*	*79 - 130*	*05/17/22 15:29*	*05/20/22 15:39*	*100*
Phenol-d5 (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/20/22 15:39*	*100*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	18		1.2	0.41	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Barium	81		1.2	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Cadmium	0.26	B	0.24	0.044	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Chromium	16	B	1.2	0.60	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Lead	33		0.61	0.28	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Selenium	<0.71		1.2	0.71	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1
Silver	<0.16		0.61	0.16	mg/Kg	☼	05/16/22 08:55	05/16/22 19:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.019	0.0064	mg/Kg	☼	05/16/22 13:40	05/17/22 09:44	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN10 8-9.5
Date Collected: 05/04/22 15:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-20
Matrix: Solid
Percent Solids: 85.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<66		380	66	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
2-Methylnaphthalene	<39		200	39	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Acenaphthene	<29		200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Acenaphthylene	<25		200	25	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Anthracene	<48		200	48	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Benzo[a]pyrene	<29	*1	200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Benzo[b]fluoranthene	<31	*1	200	31	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Benzo[g,h,i]perylene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Benzo[k]fluoranthene	<25		200	25	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Chrysene	<44		200	44	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Dibenz(a,h)anthracene	<35		200	35	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Fluoranthene	**72**	**J**	200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Fluorene	<23		200	23	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Indeno[1,2,3-cd]pyrene	<24		200	24	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Naphthalene	<25		200	25	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Phenanthrene	**77**	**J**	200	29	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1
Pyrene	**77**	**J**	200	23	ug/Kg	☼	05/17/22 15:29	05/18/22 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*60 - 120*	*05/17/22 15:29*	*05/18/22 20:25*	*1*
Nitrobenzene-d5 (Surr)	*66*		*53 - 120*	*05/17/22 15:29*	*05/18/22 20:25*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*54 - 120*	*05/17/22 15:29*	*05/18/22 20:25*	*1*
2-Fluorophenol (Surr)	*59*		*52 - 120*	*05/17/22 15:29*	*05/18/22 20:25*	*1*
p-Terphenyl-d14 (Surr)	*93*		*79 - 130*	*05/17/22 15:29*	*05/18/22 20:25*	*1*
Phenol-d5 (Surr)	*65*		*54 - 120*	*05/17/22 15:29*	*05/18/22 20:25*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.8**		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Barium	**42**		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Cadmium	**0.050**	**J B**	0.21	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Chromium	**17**	**B**	1.1	0.53	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Lead	**3.4**		0.54	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Selenium	<0.63		1.1	0.63	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1
Silver	**0.21**	**J**	0.54	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 19:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.011**	**J**	0.018	0.0060	mg/Kg	☼	05/16/22 13:40	05/17/22 09:45	1

Client Sample ID: STN11 0-2
Date Collected: 05/04/22 15:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-21
Matrix: Solid
Percent Solids: 85.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<3300		19000	3300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
2-Methylnaphthalene	<1900		9700	1900	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Acenaphthene	<1400		9700	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Acenaphthylene	<1300		9700	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Anthracene	<2400		9700	2400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Benzo[a]anthracene	**3600**	**J**	9700	970	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Benzo[a]pyrene	**4600**	**J *1**	9700	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Benzo[b]fluoranthene	**4900**	**J *1**	9700	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Benzo[g,h,i]perylene	**4600**	**J**	9700	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Benzo[k]fluoranthene	**2400**	**J**	9700	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Chrysene	**5700**	**J**	9700	2200	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Dibenz(a,h)anthracene	<1700		9700	1700	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Fluoranthene	**6000**	**J**	9700	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Fluorene	<1100		9700	1100	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Indeno[1,2,3-cd]pyrene	**2600**	**J**	9700	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Naphthalene	<1300		9700	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Phenanthrene	**4300**	**J**	9700	1400	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50
Pyrene	**6500**	**J**	9700	1100	ug/Kg	☼	05/17/22 15:29	05/18/22 20:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/18/22 20:49*	*50*
Nitrobenzene-d5 (Surr)	*68*		*53 - 120*	*05/17/22 15:29*	*05/18/22 20:49*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 20:49*	*50*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 20:49*	*50*
p-Terphenyl-d14 (Surr)	*84*		*79 - 130*	*05/17/22 15:29*	*05/18/22 20:49*	*50*
Phenol-d5 (Surr)	*67*		*54 - 120*	*05/17/22 15:29*	*05/18/22 20:49*	*50*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.5**		1.1	0.37	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Barium	**65**		1.1	0.12	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Cadmium	<0.039		0.22	0.039	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Chromium	**17**	**B**	1.1	0.54	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Lead	**15**		0.54	0.25	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1
Silver	**0.25**	**J**	0.54	0.14	mg/Kg	☼	05/16/22 08:55	05/16/22 19:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.043**		0.019	0.0062	mg/Kg	☼	05/16/22 13:40	05/17/22 09:48	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN11 10.5-12
Date Collected: 05/04/22 15:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-22
Matrix: Solid
Percent Solids: 84.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<67		390	67	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
2-Methylnaphthalene	<40		200	40	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Acenaphthene	<30		200	30	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Acenaphthylene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Anthracene	<50		200	50	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Benzo[a]pyrene	<30	*1	200	30	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Benzo[b]fluoranthene	<32	*1	200	32	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Benzo[g,h,i]perylene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Benzo[k]fluoranthene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Chrysene	<45		200	45	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Dibenz(a,h)anthracene	<35		200	35	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Fluoranthene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Fluorene	<24		200	24	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Indeno[1,2,3-cd]pyrene	<25		200	25	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Naphthalene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Phenanthrene	<30		200	30	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1
Pyrene	<24		200	24	ug/Kg	☼	05/17/22 15:29	05/18/22 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*93*		*60 - 120*	*05/17/22 15:29*	*05/18/22 21:14*	*1*
Nitrobenzene-d5 (Surr)	*83*		*53 - 120*	*05/17/22 15:29*	*05/18/22 21:14*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*54 - 120*	*05/17/22 15:29*	*05/18/22 21:14*	*1*
2-Fluorophenol (Surr)	*66*		*52 - 120*	*05/17/22 15:29*	*05/18/22 21:14*	*1*
p-Terphenyl-d14 (Surr)	*104*		*79 - 130*	*05/17/22 15:29*	*05/18/22 21:14*	*1*
Phenol-d5 (Surr)	*76*		*54 - 120*	*05/17/22 15:29*	*05/18/22 21:14*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.8**	**F1**	1.1	0.38	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Barium	**83**		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Cadmium	**0.11**	**J B**	0.22	0.040	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Chromium	**18**		1.1	0.56	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Lead	**6.1**		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Selenium	<0.66	F1	1.1	0.66	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1
Silver	**0.38**	**J F1**	0.56	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.019	0.0062	mg/Kg	☼	05/17/22 15:00	05/18/22 07:28	1

Client Sample ID: STN12 3.5-4.5
Lab Sample ID: 500-216192-23
Date Collected: 05/04/22 14:45
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 78.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<720		4200	720	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
2-Methylnaphthalene	**470**	**J**	2200	430	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Acenaphthene	**1800**	**J**	2200	320	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Acenaphthylene	<280		2200	280	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Anthracene	**3600**		2200	530	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Benzo[a]anthracene	**7200**		2200	220	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Benzo[a]pyrene	**7200**	***1**	2200	320	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Benzo[b]fluoranthene	**7600**	***1**	2200	340	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Benzo[g,h,i]perylene	**5500**		2200	230	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Benzo[k]fluoranthene	**3200**		2200	280	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Chrysene	**8500**		2200	480	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Dibenz(a,h)anthracene	**1300**	**J**	2200	380	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Fluoranthene	**17000**		2200	230	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Fluorene	**1700**	**J**	2200	250	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Indeno[1,2,3-cd]pyrene	**4200**		2200	270	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Naphthalene	**890**	**J**	2200	280	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Phenanthrene	**19000**		2200	320	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10
Pyrene	**18000**		2200	250	ug/Kg	☼	05/17/22 15:29	05/18/22 21:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*88*		*60 - 120*	*05/17/22 15:29*	*05/18/22 21:38*	*10*
Nitrobenzene-d5 (Surr)	*90*		*53 - 120*	*05/17/22 15:29*	*05/18/22 21:38*	*10*
2,4,6-Tribromophenol (Surr)	*83*		*54 - 120*	*05/17/22 15:29*	*05/18/22 21:38*	*10*
2-Fluorophenol (Surr)	*74*		*52 - 120*	*05/17/22 15:29*	*05/18/22 21:38*	*10*
p-Terphenyl-d14 (Surr)	*99*		*79 - 130*	*05/17/22 15:29*	*05/18/22 21:38*	*10*
Phenol-d5 (Surr)	*74*		*54 - 120*	*05/17/22 15:29*	*05/18/22 21:38*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.9**		1.2	0.41	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Barium	**140**		1.2	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Cadmium	<0.043		0.24	0.043	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Chromium	**34**		1.2	0.59	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Lead	**11**		0.60	0.28	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Selenium	<0.70		1.2	0.70	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1
Silver	**0.58**	**J**	0.60	0.15	mg/Kg	☼	05/16/22 15:15	05/17/22 14:20	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.038**		0.020	0.0066	mg/Kg	☼	05/17/22 15:00	05/18/22 07:31	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN12 8-10
Date Collected: 05/04/22 14:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-24
Matrix: Solid
Percent Solids: 75.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<75		430	75	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
2-Methylnaphthalene	<45		220	45	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Acenaphthene	<33		220	33	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Acenaphthylene	<29		220	29	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Anthracene	<55		220	55	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Benzo[a]pyrene	<33	*1	220	33	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Benzo[b]fluoranthene	<36	*1	220	36	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Benzo[g,h,i]perylene	<24		220	24	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Benzo[k]fluoranthene	<29		220	29	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Chrysene	<50		220	50	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Dibenz(a,h)anthracene	<39		220	39	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Fluoranthene	<24		220	24	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Fluorene	<26		220	26	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Indeno[1,2,3-cd]pyrene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Naphthalene	<29		220	29	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Phenanthrene	<33		220	33	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1
Pyrene	<26		220	26	ug/Kg	☼	05/17/22 15:29	05/18/22 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*93*		*60 - 120*	*05/17/22 15:29*	*05/18/22 22:03*	*1*
Nitrobenzene-d5 (Surr)	*88*		*53 - 120*	*05/17/22 15:29*	*05/18/22 22:03*	*1*
2,4,6-Tribromophenol (Surr)	*112*		*54 - 120*	*05/17/22 15:29*	*05/18/22 22:03*	*1*
2-Fluorophenol (Surr)	*68*		*52 - 120*	*05/17/22 15:29*	*05/18/22 22:03*	*1*
p-Terphenyl-d14 (Surr)	*102*		*79 - 130*	*05/17/22 15:29*	*05/18/22 22:03*	*1*
Phenol-d5 (Surr)	*77*		*54 - 120*	*05/17/22 15:29*	*05/18/22 22:03*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**		1.2	0.43	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Barium	**130**		1.2	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Cadmium	<0.045		0.25	0.045	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Chromium	**33**		1.2	0.62	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Lead	**8.4**		0.62	0.29	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Selenium	<0.73		1.2	0.73	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1
Silver	**0.52**	**J**	0.62	0.16	mg/Kg	☼	05/16/22 15:15	05/17/22 14:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.020	0.0067	mg/Kg	☼	05/17/22 15:00	05/18/22 07:39	1

Client Sample ID: STN13 2.5-3.5
Lab Sample ID: 500-216192-25
Date Collected: 05/04/22 14:00
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 81.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<3400		20000	3400	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
2-Methylnaphthalene	<2000		10000	2000	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Acenaphthene	<1500		10000	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Acenaphthylene	<1300		10000	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Anthracene	<2500		10000	2500	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Benzo[a]anthracene	**7000**	**J**	10000	1000	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Benzo[a]pyrene	**10000**	***1**	10000	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Benzo[b]fluoranthene	**7200**	**J *1**	10000	1600	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Benzo[g,h,i]perylene	**9200**	**J**	10000	1100	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Benzo[k]fluoranthene	**3600**	**J**	10000	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Chrysene	**9700**	**J**	10000	2300	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Dibenz(a,h)anthracene	**1900**	**J**	10000	1800	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Fluoranthene	**9000**	**J**	10000	1100	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Fluorene	<1200		10000	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Indeno[1,2,3-cd]pyrene	**4400**	**J**	10000	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Naphthalene	<1300		10000	1300	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Phenanthrene	**7200**	**J**	10000	1500	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50
Pyrene	**11000**		10000	1200	ug/Kg	☼	05/17/22 15:29	05/18/22 22:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*0*	*S1-*	*60 - 120*	*05/17/22 15:29*	*05/18/22 22:27*	*50*
Nitrobenzene-d5 (Surr)	*71*		*53 - 120*	*05/17/22 15:29*	*05/18/22 22:27*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 22:27*	*50*
2-Fluorophenol (Surr)	*0*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 22:27*	*50*
p-Terphenyl-d14 (Surr)	*78*	*S1-*	*79 - 130*	*05/17/22 15:29*	*05/18/22 22:27*	*50*
Phenol-d5 (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 22:27*	*50*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.9**		1.1	0.37	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Barium	**150**		1.1	0.12	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Cadmium	**0.14**	**J B**	0.22	0.039	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Chromium	**7.9**		1.1	0.54	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Lead	**29**		0.55	0.25	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Selenium	<0.64		1.1	0.64	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1
Silver	**0.20**	**J**	0.55	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.036**		0.019	0.0062	mg/Kg	☼	05/17/22 15:00	05/18/22 07:41	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN14 0-2
Date Collected: 05/04/22 13:35
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-26
Matrix: Solid
Percent Solids: 78.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<73		420	73	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
2-Methylnaphthalene	<43		220	43	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Acenaphthene	<32		220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Acenaphthylene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Anthracene	<54		220	54	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Benzo[a]anthracene	<22		220	22	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Benzo[a]pyrene	<32	*1	220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Benzo[b]fluoranthene	**71**	**J *1**	220	34	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Benzo[g,h,i]perylene	<23		220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Benzo[k]fluoranthene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Chrysene	<48		220	48	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Dibenz(a,h)anthracene	<38		220	38	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Fluoranthene	**70**	**J**	220	23	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Fluorene	<25		220	25	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Indeno[1,2,3-cd]pyrene	**34**	**J**	220	27	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Naphthalene	<28		220	28	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Phenanthrene	**58**	**J**	220	32	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1
Pyrene	**75**	**J**	220	25	ug/Kg	☼	05/17/22 15:29	05/18/22 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*88*		*60 - 120*	*05/17/22 15:29*	*05/18/22 22:51*	*1*
Nitrobenzene-d5 (Surr)	*87*		*53 - 120*	*05/17/22 15:29*	*05/18/22 22:51*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*54 - 120*	*05/17/22 15:29*	*05/18/22 22:51*	*1*
2-Fluorophenol (Surr)	*69*		*52 - 120*	*05/17/22 15:29*	*05/18/22 22:51*	*1*
p-Terphenyl-d14 (Surr)	*93*		*79 - 130*	*05/17/22 15:29*	*05/18/22 22:51*	*1*
Phenol-d5 (Surr)	*77*		*54 - 120*	*05/17/22 15:29*	*05/18/22 22:51*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		1.2	0.39	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Barium	**130**		1.2	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Cadmium	**0.095**	**J B**	0.23	0.042	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Chromium	**5.6**		1.2	0.57	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Lead	**8.1**		0.58	0.27	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Selenium	**1.6**		1.2	0.68	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1
Silver	**0.16**	**J**	0.58	0.15	mg/Kg	☼	05/16/22 15:15	05/17/22 14:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.021**		0.020	0.0066	mg/Kg	☼	05/17/22 15:00	05/18/22 07:43	1

Client Sample ID: STN15 0-1
Lab Sample ID: 500-216192-27

Date Collected: 05/04/22 13:05
Matrix: Solid

Date Received: 05/06/22 08:53
Percent Solids: 88.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<320		1800	320	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
2-Methylnaphthalene	<190		940	190	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Acenaphthene	<140		940	140	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Acenaphthylene	**960**		940	120	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Anthracene	**640**	**J**	940	230	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Benzo[a]anthracene	**2800**		940	94	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Benzo[a]pyrene	**2200**	***1**	940	140	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Benzo[b]fluoranthene	**2800**	***1**	940	150	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Benzo[g,h,i]perylene	**1300**		940	100	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Benzo[k]fluoranthene	**1300**		940	120	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Chrysene	**2800**		940	210	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Dibenz(a,h)anthracene	**450**	**J**	940	170	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Fluoranthene	**5700**		940	100	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Fluorene	**260**	**J**	940	110	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Indeno[1,2,3-cd]pyrene	**1400**		940	120	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Naphthalene	**320**	**J**	940	120	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Phenanthrene	**3800**		940	140	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5
Pyrene	**5100**		940	110	ug/Kg	☼	05/17/22 15:29	05/18/22 23:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*100*		*60 - 120*	*05/17/22 15:29*	*05/18/22 23:15*	*5*
Nitrobenzene-d5 (Surr)	*99*		*53 - 120*	*05/17/22 15:29*	*05/18/22 23:15*	*5*
2,4,6-Tribromophenol (Surr)	*0*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/18/22 23:15*	*5*
2-Fluorophenol (Surr)	*32*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/18/22 23:15*	*5*
p-Terphenyl-d14 (Surr)	*99*		*79 - 130*	*05/17/22 15:29*	*05/18/22 23:15*	*5*
Phenol-d5 (Surr)	*81*		*54 - 120*	*05/17/22 15:29*	*05/18/22 23:15*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.0**		1.1	0.38	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Barium	**46**		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Cadmium	**0.043**	**J B**	0.22	0.040	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Chromium	**12**		1.1	0.55	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Lead	**4.2**		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Selenium	<0.65		1.1	0.65	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1
Silver	**0.17**	**J**	0.56	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.012**	**J**	0.016	0.0055	mg/Kg	☼	05/17/22 15:00	05/18/22 07:49	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN16 0-1.5
Date Collected: 05/04/22 09:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-28
Matrix: Solid
Percent Solids: 78.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<39		84	39	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1,1-Trichloroethane	<32		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1,2,2-Tetrachloroethane	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1,2-Trichloroethane	<29		84	29	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1-Dichloroethane	<34		84	34	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1-Dichloroethene	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,1-Dichloropropene	<25		84	25	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2,3-Trichlorobenzene	<38		84	38	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2,3-Trichloropropane	<35		170	35	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2,4-Trichlorobenzene	<29		84	29	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2,4-Trimethylbenzene	**430**		84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2-Dibromo-3-Chloropropane	<170		420	170	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2-Dibromoethane	<32		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2-Dichlorobenzene	<28		84	28	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2-Dichloroethane	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,2-Dichloropropane	<36		84	36	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,3,5-Trimethylbenzene	**120**		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,3-Dichlorobenzene	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,3-Dichloropropane	<30		84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
1,4-Dichlorobenzene	<30		84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
2,2-Dichloropropane	<37		84	37	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
2-Chlorotoluene	<26		84	26	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
4-Chlorotoluene	<29		84	29	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Benzene	**170**		21	12	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Bromobenzene	<30		84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Bromochloromethane	<36		84	36	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Dichlorobromomethane	<31		84	31	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Bromoform	<40		84	40	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Bromomethane	<67		250	67	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Carbon tetrachloride	<32		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Chlorobenzene	<32		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Chloroethane	<42		84	42	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Chloroform	<31		170	31	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Chloromethane	<27	*-	84	27	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
cis-1,2-Dichloroethene	<34		84	34	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
cis-1,3-Dichloropropene	<35		84	35	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Dibromochloromethane	<41		84	41	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Dibromomethane	<23		84	23	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Dichlorodifluoromethane	<56	*-	250	56	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Ethylbenzene	**200**		21	15	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Hexachlorobutadiene	<37		84	37	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Isopropyl ether	<23		84	23	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Isopropylbenzene	**110**		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Methyl tert-butyl ether	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Methylene Chloride	<140		420	140	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Naphthalene	**530**		84	28	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
n-Butylbenzene	**99**		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
N-Propylbenzene	**180**		84	35	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
p-Isopropyltoluene	**47**	**J**	84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50

Client Sample ID: STN16 0-1.5 **Lab Sample ID: 500-216192-28**
Date Collected: 05/04/22 09:55 **Matrix: Solid**
Date Received: 05/06/22 08:53 **Percent Solids: 78.9**

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**62**	**J**	84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Styrene	<32		84	32	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
tert-Butylbenzene	<33		84	33	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Tetrachloroethene	<31		84	31	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Toluene	**640**		21	12	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
trans-1,2-Dichloroethene	<29		84	29	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
trans-1,3-Dichloropropene	<30		84	30	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Trichloroethene	<14		42	14	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Trichlorofluoromethane	<36		84	36	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Vinyl chloride	<22		84	22	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50
Xylenes, Total	**1100**		42	18	ug/Kg	☼	05/04/22 09:55	05/17/22 17:44	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*75 - 126*	*05/04/22 09:55*	*05/17/22 17:44*	*50*
4-Bromofluorobenzene (Surr)	*110*		*72 - 124*	*05/04/22 09:55*	*05/17/22 17:44*	*50*
Dibromofluoromethane (Surr)	*95*		*75 - 120*	*05/04/22 09:55*	*05/17/22 17:44*	*50*
Toluene-d8 (Surr)	*94*		*75 - 120*	*05/04/22 09:55*	*05/17/22 17:44*	*50*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**740**		410	70	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
2-Methylnaphthalene	**1400**		210	42	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Acenaphthene	**230**		210	31	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Acenaphthylene	<27		210	27	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Anthracene	**420**		210	52	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Benzo[a]anthracene	**900**		210	21	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Benzo[a]pyrene	**760**	***1**	210	31	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Benzo[b]fluoranthene	**1300**	***1**	210	33	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Benzo[g,h,i]perylene	**580**		210	22	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Benzo[k]fluoranthene	**440**		210	27	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Chrysene	**1300**		210	47	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Dibenz(a,h)anthracene	**200**	**J**	210	37	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Fluoranthene	**2200**		210	22	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Fluorene	<25		210	25	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Indeno[1,2,3-cd]pyrene	**590**		210	26	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Naphthalene	**770**		210	27	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Phenanthrene	**2400**		210	31	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1
Pyrene	**1800**		210	25	ug/Kg	☼	05/17/22 15:29	05/18/22 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*60 - 120*	*05/17/22 15:29*	*05/18/22 23:39*	*1*
Nitrobenzene-d5 (Surr)	*85*		*53 - 120*	*05/17/22 15:29*	*05/18/22 23:39*	*1*
2,4,6-Tribromophenol (Surr)	*90*		*54 - 120*	*05/17/22 15:29*	*05/18/22 23:39*	*1*
2-Fluorophenol (Surr)	*64*		*52 - 120*	*05/17/22 15:29*	*05/18/22 23:39*	*1*
p-Terphenyl-d14 (Surr)	*81*		*79 - 130*	*05/17/22 15:29*	*05/18/22 23:39*	*1*
Phenol-d5 (Surr)	*72*		*54 - 120*	*05/17/22 15:29*	*05/18/22 23:39*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.0**		1.1	0.38	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN16 0-1.5
Date Collected: 05/04/22 09:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-28
Matrix: Solid
Percent Solids: 78.9

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	130		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1
Cadmium	0.12	J B	0.22	0.040	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1
Chromium	3.5		1.1	0.55	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1
Lead	18		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1
Selenium	1.6		1.1	0.66	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1
Silver	0.25	J	0.56	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.020	0.0068	mg/Kg	☼	05/17/22 15:00	05/18/22 07:50	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN16 3.5-5
Date Collected: 05/04/22 10:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-29
Matrix: Solid
Percent Solids: 84.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<64		140	64	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1,1-Trichloroethane	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1,2,2-Tetrachloroethane	<55		140	55	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1,2-Trichloroethane	<49		140	49	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1-Dichloroethane	<57		140	57	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1-Dichloroethene	<54		140	54	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,1-Dichloropropene	<41		140	41	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2,3-Trichlorobenzene	<63		140	63	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2,3-Trichloropropane	<57		280	57	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2,4-Trichlorobenzene	<47		140	47	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2,4-Trimethylbenzene	**760**		140	50	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2-Dibromo-3-Chloropropane	<280		690	280	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2-Dibromoethane	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2-Dichlorobenzene	<46		140	46	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2-Dichloroethane	<54		140	54	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,2-Dichloropropane	<59		140	59	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,3,5-Trimethylbenzene	**1900**		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,3-Dichlorobenzene	<55		140	55	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,3-Dichloropropane	<50		140	50	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
1,4-Dichlorobenzene	<50		140	50	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
2,2-Dichloropropane	<62		140	62	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
2-Chlorotoluene	<43		140	43	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
4-Chlorotoluene	<48		140	48	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Benzene	<20		35	20	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Bromobenzene	<49		140	49	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Bromochloromethane	<59		140	59	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Dichlorobromomethane	<52		140	52	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Bromoform	<67		140	67	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Bromomethane	<110		420	110	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Carbon tetrachloride	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Chlorobenzene	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Chloroethane	<70		140	70	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Chloroform	<51		280	51	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Chloromethane	<44	*-	140	44	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
cis-1,2-Dichloroethene	<57		140	57	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
cis-1,3-Dichloropropene	<58		140	58	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Dibromochloromethane	<68		140	68	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Dibromomethane	<37		140	37	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Dichlorodifluoromethane	<93	*-	420	93	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Ethylbenzene	<25		35	25	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Hexachlorobutadiene	<62		140	62	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Isopropyl ether	<38		140	38	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Isopropylbenzene	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Methyl tert-butyl ether	<55		140	55	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Methylene Chloride	<230		690	230	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Naphthalene	<46		140	46	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
n-Butylbenzene	<54		140	54	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
N-Propylbenzene	<57		140	57	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
p-Isopropyltoluene	**560**		140	50	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100

Client Sample ID: STN16 3.5-5 **Lab Sample ID: 500-216192-29**
Date Collected: 05/04/22 10:00 **Matrix: Solid**
Date Received: 05/06/22 08:53 **Percent Solids: 84.4**

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**210**		140	55	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Styrene	<53		140	53	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
tert-Butylbenzene	<55		140	55	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Tetrachloroethene	<51		140	51	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Toluene	<20		35	20	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
trans-1,2-Dichloroethene	<48		140	48	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
trans-1,3-Dichloropropene	<50		140	50	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Trichloroethene	<23		69	23	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Trichlorofluoromethane	<59		140	59	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Vinyl chloride	<36		140	36	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100
Xylenes, Total	**110**		69	30	ug/Kg	☼	05/04/22 10:00	05/17/22 18:08	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 126*	*05/04/22 10:00*	*05/17/22 18:08*	*100*
4-Bromofluorobenzene (Surr)	*110*		*72 - 124*	*05/04/22 10:00*	*05/17/22 18:08*	*100*
Dibromofluoromethane (Surr)	*97*		*75 - 120*	*05/04/22 10:00*	*05/17/22 18:08*	*100*
Toluene-d8 (Surr)	*92*		*75 - 120*	*05/04/22 10:00*	*05/17/22 18:08*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	**6200**		200	40	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Acenaphthene	**1400**		200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Acenaphthylene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Anthracene	**520**		200	49	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Benzo[a]pyrene	<29	*1	200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Benzo[b]fluoranthene	<32	*1	200	32	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Benzo[g,h,i]perylene	<21		200	21	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Benzo[k]fluoranthene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Chrysene	<44		200	44	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Dibenz(a,h)anthracene	<35		200	35	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Fluoranthene	**210**		200	21	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Fluorene	**2500**		200	23	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Indeno[1,2,3-cd]pyrene	<25		200	25	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Naphthalene	**870**		200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Phenanthrene	**6100**		200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1
Pyrene	**410**		200	23	ug/Kg	☼	05/17/22 15:29	05/19/22 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*60 - 120*	*05/17/22 15:29*	*05/19/22 00:03*	*1*
Nitrobenzene-d5 (Surr)	*130*	*S1+*	*53 - 120*	*05/17/22 15:29*	*05/19/22 00:03*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*54 - 120*	*05/17/22 15:29*	*05/19/22 00:03*	*1*
2-Fluorophenol (Surr)	*71*		*52 - 120*	*05/17/22 15:29*	*05/19/22 00:03*	*1*
p-Terphenyl-d14 (Surr)	*91*		*79 - 130*	*05/17/22 15:29*	*05/19/22 00:03*	*1*
Phenol-d5 (Surr)	*80*		*54 - 120*	*05/17/22 15:29*	*05/19/22 00:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**8000**		1900	330	ug/Kg	☼	05/17/22 15:29	05/20/22 16:03	5

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN16 3.5-5
Date Collected: 05/04/22 10:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-29
Matrix: Solid
Percent Solids: 84.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	97		60 - 120	05/17/22 15:29	05/20/22 16:03	5
Nitrobenzene-d5 (Surr)	104		53 - 120	05/17/22 15:29	05/20/22 16:03	5
2,4,6-Tribromophenol (Surr)	79		54 - 120	05/17/22 15:29	05/20/22 16:03	5
2-Fluorophenol (Surr)	70		52 - 120	05/17/22 15:29	05/20/22 16:03	5
p-Terphenyl-d14 (Surr)	91		79 - 130	05/17/22 15:29	05/20/22 16:03	5
Phenol-d5 (Surr)	76		54 - 120	05/17/22 15:29	05/20/22 16:03	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.9**		1.0	0.34	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Barium	**46**		1.0	0.11	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Cadmium	**0.042**	**J B**	0.20	0.036	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Chromium	**14**		1.0	0.49	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Lead	**3.5**		0.50	0.23	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Selenium	<0.59		1.0	0.59	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1
Silver	**0.23**	**J**	0.50	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:49	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.010**	**J**	0.018	0.0059	mg/Kg	☼	05/17/22 15:00	05/18/22 07:52	1

Client Sample ID: STN17 0-1.25
Lab Sample ID: 500-216192-30

Date Collected: 05/04/22 12:45
Matrix: Solid

Date Received: 05/06/22 08:53
Percent Solids: 86.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<320		1900	320	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
2-Methylnaphthalene	<190		970	190	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Acenaphthene	<140		970	140	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Acenaphthylene	**370**	**J**	970	130	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Anthracene	**240**	**J**	970	240	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Benzo[a]anthracene	**1000**		970	97	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Benzo[a]pyrene	**850**	**J *1**	970	140	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Benzo[b]fluoranthene	**1300**	**K *1**	970	150	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Benzo[g,h,i]perylene	**530**	**J**	970	100	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Benzo[k]fluoranthene	<130		970	130	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Chrysene	**1100**		970	220	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Dibenz(a,h)anthracene	**200**	**J**	970	170	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Fluoranthene	**2200**		970	100	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Fluorene	<110		970	110	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Indeno[1,2,3-cd]pyrene	**520**	**J**	970	120	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Naphthalene	**230**	**J**	970	130	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Phenanthrene	**1800**		970	140	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5
Pyrene	**1800**		970	110	ug/Kg	☼	05/17/22 15:29	05/19/22 00:27	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*87*		*60 - 120*	*05/17/22 15:29*	*05/19/22 00:27*	*5*
Nitrobenzene-d5 (Surr)	*77*		*53 - 120*	*05/17/22 15:29*	*05/19/22 00:27*	*5*
2,4,6-Tribromophenol (Surr)	*44*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/19/22 00:27*	*5*
2-Fluorophenol (Surr)	*56*		*52 - 120*	*05/17/22 15:29*	*05/19/22 00:27*	*5*
p-Terphenyl-d14 (Surr)	*93*		*79 - 130*	*05/17/22 15:29*	*05/19/22 00:27*	*5*
Phenol-d5 (Surr)	*73*		*54 - 120*	*05/17/22 15:29*	*05/19/22 00:27*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**		1.1	0.38	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Barium	**62**		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Cadmium	**0.070**	**J B**	0.22	0.040	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Chromium	**13**		1.1	0.55	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Lead	**7.2**		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Selenium	<0.66		1.1	0.66	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1
Silver	**0.29**	**J**	0.56	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 14:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.011**	**J**	0.017	0.0057	mg/Kg	☼	05/17/22 15:00	05/18/22 07:54	1

Client Sample ID: STN18 0-1.5

Date Collected: 05/04/22 16:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-31

Matrix: Solid
Percent Solids: 83.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	890		390	67	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
2-Methylnaphthalene	970		200	40	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Acenaphthene	<29		200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Acenaphthylene	<26		200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Anthracene	94	J	200	49	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Benzo[a]pyrene	210	*1	200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Benzo[b]fluoranthene	300	*1	200	32	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Benzo[g,h,i]perylene	200		200	21	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Benzo[k]fluoranthene	84	J	200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Chrysene	330		200	45	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Dibenz(a,h)anthracene	61	J	200	35	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Fluoranthene	330		200	21	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Fluorene	<24		200	24	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Indeno[1,2,3-cd]pyrene	140	J	200	25	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Naphthalene	750		200	26	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Phenanthrene	880		200	29	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1
Pyrene	330		200	24	ug/Kg	☼	05/17/22 15:29	05/19/22 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*60 - 120*	*05/17/22 15:29*	*05/19/22 00:52*	*1*
Nitrobenzene-d5 (Surr)	*83*		*53 - 120*	*05/17/22 15:29*	*05/19/22 00:52*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*54 - 120*	*05/17/22 15:29*	*05/19/22 00:52*	*1*
2-Fluorophenol (Surr)	*58*		*52 - 120*	*05/17/22 15:29*	*05/19/22 00:52*	*1*
p-Terphenyl-d14 (Surr)	*80*		*79 - 130*	*05/17/22 15:29*	*05/19/22 00:52*	*1*
Phenol-d5 (Surr)	*67*		*54 - 120*	*05/17/22 15:29*	*05/19/22 00:52*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.4		1.1	0.39	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Barium	62		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Cadmium	<0.041		0.23	0.041	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Chromium	7.7		1.1	0.56	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Lead	31		0.57	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Selenium	<0.67		1.1	0.67	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1
Silver	0.16	J	0.57	0.15	mg/Kg	☼	05/16/22 15:15	05/17/22 14:56	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.019	0.0062	mg/Kg	☼	05/17/22 15:00	05/18/22 07:56	1

Client Sample ID: STN19 0-1
Date Collected: 05/04/22 12:15
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-32
Matrix: Solid
Percent Solids: 90.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	570		360	62	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
2-Methylnaphthalene	660		190	37	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Acenaphthene	<27		190	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Acenaphthylene	86	J	190	24	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Anthracene	95	J	190	46	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Benzo[a]anthracene	360		190	19	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Benzo[a]pyrene	330	*1	190	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Benzo[b]fluoranthene	390	*1	190	30	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Benzo[g,h,i]perylene	180	J	190	20	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Benzo[k]fluoranthene	220		190	24	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Chrysene	420		190	42	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Dibenz(a,h)anthracene	65	J	190	33	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Fluoranthene	780		190	20	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Fluorene	<22		190	22	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Indeno[1,2,3-cd]pyrene	200		190	23	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Naphthalene	480		190	24	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Phenanthrene	740		190	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1
Pyrene	610		190	22	ug/Kg	☼	05/17/22 15:29	05/19/22 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*60 - 120*	*05/17/22 15:29*	*05/19/22 01:17*	*1*
Nitrobenzene-d5 (Surr)	*93*		*53 - 120*	*05/17/22 15:29*	*05/19/22 01:17*	*1*
2,4,6-Tribromophenol (Surr)	*37*	*S1-*	*54 - 120*	*05/17/22 15:29*	*05/19/22 01:17*	*1*
2-Fluorophenol (Surr)	*51*	*S1-*	*52 - 120*	*05/17/22 15:29*	*05/19/22 01:17*	*1*
p-Terphenyl-d14 (Surr)	*94*		*79 - 130*	*05/17/22 15:29*	*05/19/22 01:17*	*1*
Phenol-d5 (Surr)	*74*		*54 - 120*	*05/17/22 15:29*	*05/19/22 01:17*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.96	0.33	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Barium	47		0.96	0.11	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Cadmium	<0.035		0.19	0.035	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Chromium	11		0.96	0.48	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Lead	6.0		0.48	0.22	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Selenium	<0.56		0.96	0.56	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1
Silver	0.27	J	0.48	0.12	mg/Kg	☼	05/16/22 15:15	05/17/22 14:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.018	0.0058	mg/Kg	☼	05/17/22 15:00	05/18/22 07:58	1

Client Sample ID: STN20 0-1
Lab Sample ID: 500-216192-33
Date Collected: 05/04/22 11:00
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 85.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**98**	**J**	410	70	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
2-Methylnaphthalene	**120**	**J**	210	42	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Acenaphthene	<31		210	31	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Acenaphthylene	<27		210	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Anthracene	<52		210	52	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Benzo[a]anthracene	<21		210	21	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Benzo[a]pyrene	<31	*1	210	31	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Benzo[b]fluoranthene	<33	*1	210	33	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Benzo[g,h,i]perylene	<22		210	22	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Benzo[k]fluoranthene	<27		210	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Chrysene	<47		210	47	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Dibenz(a,h)anthracene	<37		210	37	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Fluoranthene	**32**	**J**	210	22	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Fluorene	<25		210	25	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Indeno[1,2,3-cd]pyrene	<26		210	26	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Naphthalene	**88**	**J**	210	27	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Phenanthrene	**100**	**J**	210	31	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1
Pyrene	**34**	**J**	210	25	ug/Kg	☼	05/17/22 15:29	05/19/22 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*89*		*60 - 120*	*05/17/22 15:29*	*05/19/22 01:41*	*1*
Nitrobenzene-d5 (Surr)	*83*		*53 - 120*	*05/17/22 15:29*	*05/19/22 01:41*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*54 - 120*	*05/17/22 15:29*	*05/19/22 01:41*	*1*
2-Fluorophenol (Surr)	*72*		*52 - 120*	*05/17/22 15:29*	*05/19/22 01:41*	*1*
p-Terphenyl-d14 (Surr)	*90*		*79 - 130*	*05/17/22 15:29*	*05/19/22 01:41*	*1*
Phenol-d5 (Surr)	*76*		*54 - 120*	*05/17/22 15:29*	*05/19/22 01:41*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**52**		1.1	0.38	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Barium	**65**		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Cadmium	**0.073**	**J B**	0.22	0.040	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Chromium	**8.0**		1.1	0.55	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Lead	**12**		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Selenium	**3.8**		1.1	0.66	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1
Silver	**0.14**	**J**	0.56	0.14	mg/Kg	☼	05/16/22 15:15	05/17/22 15:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.019**		0.019	0.0064	mg/Kg	☼	05/17/22 15:00	05/18/22 08:00	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN20 1-3
Date Collected: 05/04/22 11:05
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-34
Matrix: Solid
Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<67		390	67	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
2-Methylnaphthalene	<40		200	40	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Acenaphthene	<29		200	29	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Acenaphthylene	<26		200	26	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Anthracene	<49		200	49	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Benzo[a]anthracene	<20		200	20	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Benzo[a]pyrene	<29		200	29	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Benzo[b]fluoranthene	<32		200	32	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Benzo[g,h,i]perylene	<21		200	21	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Benzo[k]fluoranthene	<26		200	26	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Chrysene	<44		200	44	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Dibenz(a,h)anthracene	<35		200	35	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Fluoranthene	<21		200	21	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Fluorene	<23		200	23	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Indeno[1,2,3-cd]pyrene	<25		200	25	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Naphthalene	<26		200	26	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Phenanthrene	<29		200	29	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1
Pyrene	<23		200	23	ug/Kg	☼	05/17/22 15:37	05/18/22 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*89*		*60 - 120*	*05/17/22 15:37*	*05/18/22 20:50*	*1*
Nitrobenzene-d5 (Surr)	*82*		*53 - 120*	*05/17/22 15:37*	*05/18/22 20:50*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*54 - 120*	*05/17/22 15:37*	*05/18/22 20:50*	*1*
2-Fluorophenol (Surr)	*76*		*52 - 120*	*05/17/22 15:37*	*05/18/22 20:50*	*1*
p-Terphenyl-d14 (Surr)	*113*		*79 - 130*	*05/17/22 15:37*	*05/18/22 20:50*	*1*
Phenol-d5 (Surr)	*79*		*54 - 120*	*05/17/22 15:37*	*05/18/22 20:50*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**31**		1.1	0.39	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Barium	**10**		1.1	0.13	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Cadmium	<0.041		0.23	0.041	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Chromium	**4.9**		1.1	0.56	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Lead	**1.5**		0.56	0.26	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Selenium	**1.7**		1.1	0.66	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1
Silver	<0.15		0.56	0.15	mg/Kg	☼	05/16/22 15:15	05/17/22 15:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0062		0.019	0.0062	mg/Kg	☼	05/17/22 15:00	05/18/22 08:01	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: Trip Blank
Date Collected: 05/04/22 00:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-35
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1-Dichloroethane	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1-Dichloroethene	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,1-Dichloropropene	<15		50	15	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2,3-Trichloropropane	<21		100	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2-Dibromoethane	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2-Dichloroethane	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,2-Dichloropropane	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,3-Dichloropropane	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
2,2-Dichloropropane	<22		50	22	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
2-Chlorotoluene	<16		50	16	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
4-Chlorotoluene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Benzene	<7.3		13	7.3	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Bromobenzene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Bromochloromethane	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Dichlorobromomethane	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Bromoform	<24		50	24	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Bromomethane	<40	*+	150	40	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Carbon tetrachloride	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Chlorobenzene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Chloroethane	<25		50	25	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Chloroform	<19		100	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Chloromethane	<16		50	16	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Dibromochloromethane	<24		50	24	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Dibromomethane	<14		50	14	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Dichlorodifluoromethane	<34		150	34	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Hexachlorobutadiene	<22		50	22	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Isopropyl ether	<14		50	14	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Isopropylbenzene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Methylene Chloride	<82		250	82	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Naphthalene	<17		50	17	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
n-Butylbenzene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
N-Propylbenzene	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
p-Isopropyltoluene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: Trip Blank
Date Collected: 05/04/22 00:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-35
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Styrene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
tert-Butylbenzene	<20		50	20	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Tetrachloroethene	<19		50	19	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Toluene	<7.4		13	7.4	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Trichloroethene	<8.2		25	8.2	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Trichlorofluoromethane	<21		50	21	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Vinyl chloride	<13		50	13	ug/Kg		05/04/22 00:00	05/18/22 12:57	50
Xylenes, Total	<11		25	11	ug/Kg		05/04/22 00:00	05/18/22 12:57	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*75 - 126*	*05/04/22 00:00*	*05/18/22 12:57*	*50*
4-Bromofluorobenzene (Surr)	*107*		*72 - 124*	*05/04/22 00:00*	*05/18/22 12:57*	*50*
Dibromofluoromethane (Surr)	*95*		*75 - 120*	*05/04/22 00:00*	*05/18/22 12:57*	*50*
Toluene-d8 (Surr)	*93*		*75 - 120*	*05/04/22 00:00*	*05/18/22 12:57*	*50*

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-A

Date Collected: 05/05/22 13:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-36

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
1,2-Dichloroethane	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
2-Butanone (MEK)	<0.050		0.10	0.050	mg/L			05/15/22 17:33	20
Benzene	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
Carbon tetrachloride	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
Chlorobenzene	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
Chloroform	<0.020		0.040	0.020	mg/L			05/15/22 17:33	20
Tetrachloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
Trichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20
Vinyl chloride	<0.010		0.020	0.010	mg/L			05/15/22 17:33	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 126*		*05/15/22 17:33*	*20*
4-Bromofluorobenzene (Surr)	*85*		*72 - 124*		*05/15/22 17:33*	*20*
Dibromofluoromethane (Surr)	*104*		*75 - 120*		*05/15/22 17:33*	*20*
Toluene-d8 (Surr)	*101*		*75 - 120*		*05/15/22 17:33*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:28	5
2,4-Dinitrotoluene	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 20:28	5
Hexachlorobenzene	<0.025		0.025	0.025	mg/L		05/19/22 07:32	05/19/22 20:28	5
Hexachlorobutadiene	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:28	5
Hexachloroethane	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:28	5
2-Methylphenol	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:28	5
3 & 4 Methylphenol	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:28	5
Nitrobenzene	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 20:28	5
Pentachlorophenol	<1.0		1.0	1.0	mg/L		05/19/22 07:32	05/19/22 20:28	5
Pyridine	<1.0		1.0	1.0	mg/L		05/19/22 07:32	05/19/22 20:28	5
2,4,5-Trichlorophenol	<0.50		0.50	0.50	mg/L		05/19/22 07:32	05/19/22 20:28	5
2,4,6-Trichlorophenol	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*91*		*34 - 110*	*05/19/22 07:32*	*05/19/22 20:28*	*5*
2-Fluorophenol (Surr)	*57*		*27 - 110*	*05/19/22 07:32*	*05/19/22 20:28*	*5*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*05/19/22 07:32*	*05/19/22 20:28*	*5*
Phenol-d5 (Surr)	*29*		*20 - 100*	*05/19/22 07:32*	*05/19/22 20:28*	*5*
Terphenyl-d14 (Surr)	*101*		*40 - 145*	*05/19/22 07:32*	*05/19/22 20:28*	*5*
2,4,6-Tribromophenol (Surr)	*56*		*40 - 145*	*05/19/22 07:32*	*05/19/22 20:28*	*5*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.050	0.010	mg/L		05/13/22 17:04	05/16/22 19:08	1
Barium	**0.66**		0.50	0.050	mg/L		05/13/22 17:04	05/16/22 19:08	1
Cadmium	<0.0020		0.0050	0.0020	mg/L		05/13/22 17:04	05/16/22 19:08	1
Chromium	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:08	1
Copper	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:08	1
Lead	<0.0075		0.050	0.0075	mg/L		05/13/22 17:04	05/16/22 19:08	1
Nickel	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:08	1
Selenium	<0.020		0.050	0.020	mg/L		05/13/22 17:04	05/16/22 19:08	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-A
Date Collected: 05/05/22 13:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-36
Matrix: Solid

Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:08	1
Zinc	**0.028**	**J**	0.10	0.020	mg/L		05/13/22 17:04	05/16/22 19:08	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/13/22 12:15	05/14/22 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.0**		0.2	0.2	SU			05/11/22 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid	**Pass**				No Unit			05/12/22 18:26	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-A
Date Collected: 05/05/22 13:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-36
Matrix: Solid
Percent Solids: 78.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.040		0.10	0.040	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1221	<0.040		0.10	0.040	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1232	<0.028		0.10	0.028	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1242	<0.040		0.10	0.040	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1248	<0.049		0.10	0.049	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1254	<0.035		0.10	0.035	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1260	<0.039		0.10	0.039	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1262	<0.034		0.10	0.034	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5
PCB-1268	<0.059		0.10	0.059	mg/Kg	☼	05/11/22 07:27	05/15/22 15:31	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*49 - 129*	*05/11/22 07:27*	*05/15/22 15:31*	*5*
DCB Decachlorobiphenyl	*89*		*37 - 121*	*05/11/22 07:27*	*05/15/22 15:31*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.17**	**J**	0.30	0.15	mg/Kg	☼	05/17/22 12:17	05/17/22 18:29	1
Sulfide	<5.9		13	5.9	mg/Kg	☼	05/12/22 18:00	05/16/22 15:50	1
Phenolics, Total Recoverable	<0.52		0.63	0.52	mg/Kg	☼	05/18/22 10:30	05/18/22 14:51	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Chlorine	<0.062		0.062	0.062	%	☼	05/19/22 11:58	05/19/22 13:38	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-B

Date Collected: 05/05/22 14:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-37

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
1,2-Dichloroethane	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
2-Butanone (MEK)	<0.050		0.10	0.050	mg/L			05/15/22 17:57	20
Benzene	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
Carbon tetrachloride	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
Chlorobenzene	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
Chloroform	<0.020		0.040	0.020	mg/L			05/15/22 17:57	20
Tetrachloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
Trichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20
Vinyl chloride	<0.010		0.020	0.010	mg/L			05/15/22 17:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 126*		*05/15/22 17:57*	*20*
4-Bromofluorobenzene (Surr)	*87*		*72 - 124*		*05/15/22 17:57*	*20*
Dibromofluoromethane (Surr)	*107*		*75 - 120*		*05/15/22 17:57*	*20*
Toluene-d8 (Surr)	*100*		*75 - 120*		*05/15/22 17:57*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:53	5
2,4-Dinitrotoluene	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 20:53	5
Hexachlorobenzene	<0.025		0.025	0.025	mg/L		05/19/22 07:32	05/19/22 20:53	5
Hexachlorobutadiene	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:53	5
Hexachloroethane	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:53	5
2-Methylphenol	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:53	5
3 & 4 Methylphenol	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 20:53	5
Nitrobenzene	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 20:53	5
Pentachlorophenol	<1.0		1.0	1.0	mg/L		05/19/22 07:32	05/19/22 20:53	5
Pyridine	<1.0		1.0	1.0	mg/L		05/19/22 07:32	05/19/22 20:53	5
2,4,5-Trichlorophenol	<0.50		0.50	0.50	mg/L		05/19/22 07:32	05/19/22 20:53	5
2,4,6-Trichlorophenol	<0.25		0.25	0.25	mg/L		05/19/22 07:32	05/19/22 20:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*99*		*34 - 110*	*05/19/22 07:32*	*05/19/22 20:53*	*5*
2-Fluorophenol (Surr)	*57*		*27 - 110*	*05/19/22 07:32*	*05/19/22 20:53*	*5*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*05/19/22 07:32*	*05/19/22 20:53*	*5*
Phenol-d5 (Surr)	*28*		*20 - 100*	*05/19/22 07:32*	*05/19/22 20:53*	*5*
Terphenyl-d14 (Surr)	*110*		*40 - 145*	*05/19/22 07:32*	*05/19/22 20:53*	*5*
2,4,6-Tribromophenol (Surr)	*64*		*40 - 145*	*05/19/22 07:32*	*05/19/22 20:53*	*5*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.050	0.010	mg/L		05/13/22 17:04	05/16/22 19:12	1
Barium	**0.60**		0.50	0.050	mg/L		05/13/22 17:04	05/16/22 19:12	1
Cadmium	**0.0025**	**J**	0.0050	0.0020	mg/L		05/13/22 17:04	05/16/22 19:12	1
Chromium	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:12	1
Copper	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:12	1
Lead	<0.0075		0.050	0.0075	mg/L		05/13/22 17:04	05/16/22 19:12	1
Nickel	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:12	1
Selenium	<0.020		0.050	0.020	mg/L		05/13/22 17:04	05/16/22 19:12	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-B
Date Collected: 05/05/22 14:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-37
Matrix: Solid

Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 19:12	1
Zinc	**0.37**		0.10	0.020	mg/L		05/13/22 17:04	05/16/22 19:12	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/13/22 12:15	05/14/22 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.1**		0.2	0.2	SU			05/11/22 20:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Free Liquid	**Pass**				No Unit			05/12/22 18:26	1

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-B
Date Collected: 05/05/22 14:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-37
Matrix: Solid
Percent Solids: 77.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.042		0.11	0.042	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1221	<0.042		0.11	0.042	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1232	<0.029		0.11	0.029	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1242	<0.041		0.11	0.041	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1248	<0.051		0.11	0.051	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1254	<0.036		0.11	0.036	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1260	<0.040		0.11	0.040	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1262	<0.035		0.11	0.035	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5
PCB-1268	<0.062		0.11	0.062	mg/Kg	☼	05/11/22 07:27	05/15/22 15:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*49 - 129*	*05/11/22 07:27*	*05/15/22 15:45*	*5*
DCB Decachlorobiphenyl	*77*		*37 - 121*	*05/11/22 07:27*	*05/15/22 15:45*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.28**	**J**	0.29	0.14	mg/Kg	☼	05/17/22 12:17	05/17/22 18:31	1
Sulfide	<5.8		12	5.8	mg/Kg	☼	05/12/22 18:04	05/16/22 15:53	1
Phenolics, Total Recoverable	**0.58**	**J**	0.59	0.49	mg/Kg	☼	05/18/22 10:30	05/18/22 14:53	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Chlorine	<0.064		0.064	0.064	%	☼	05/19/22 11:58	05/19/22 13:38	1

Definitions/Glossary

Client: Stantec Consulting Corp. Job ID: 500-216192-1
Project/Site: C Reiss Coal Dock Superior - 193707141

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Prep Batch: 655406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-3	STN2 0-2.5	Total/NA	Solid	5035	
500-216192-4	FD1	Total/NA	Solid	5035	
500-216192-28	STN16 0-1.5	Total/NA	Solid	5035	
500-216192-29	STN16 3.5-5	Total/NA	Solid	5035	
500-216192-35	Trip Blank	Total/NA	Solid	5035	
LB3 500-655406/21-A	Method Blank	Total/NA	Solid	5035	
LCS 500-655406/22-A	Lab Control Sample	Total/NA	Solid	5035	

Leach Batch: 656367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	1311	
500-216192-37	STN-B	TCLP	Solid	1311	
LB 500-656367/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 656625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 500-655406/21-A	Method Blank	Total/NA	Solid	8260B	655406
MB 500-656625/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-655406/22-A	Lab Control Sample	Total/NA	Solid	8260B	655406
LCS 500-656625/4	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 656731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	8260B	656367
500-216192-37	STN-B	TCLP	Solid	8260B	656367
LB 500-656367/1-A	Method Blank	TCLP	Solid	8260B	656367
MB 500-656731/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-656731/9	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 657061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-3	STN2 0-2.5	Total/NA	Solid	8260B	655406
500-216192-4	FD1	Total/NA	Solid	8260B	655406
500-216192-28	STN16 0-1.5	Total/NA	Solid	8260B	655406
500-216192-29	STN16 3.5-5	Total/NA	Solid	8260B	655406
MB 500-657061/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-657061/5	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 657241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-35	Trip Blank	Total/NA	Solid	8260B	655406
MB 500-657241/30	Method Blank	Total/NA	Solid	8260B	
LCS 500-657241/29	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 626297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	3550C	
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	3550C	
500-216192-3	STN2 0-2.5	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Prep Batch: 626297 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-5	STN2 4-6	Total/NA	Solid	3550C	
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	3550C	
500-216192-7	STN3 2.5-4	Total/NA	Solid	3550C	
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	3550C	
500-216192-9	STN4 4-6	Total/NA	Solid	3550C	
500-216192-10	STN5 2-4	Total/NA	Solid	3550C	
500-216192-11	STN6 0-2	Total/NA	Solid	3550C	
500-216192-12	STN6 8-10	Total/NA	Solid	3550C	
500-216192-13	STN7 1.5-3	Total/NA	Solid	3550C	
MB 480-626297/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-626297/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 626427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	8270D	626297
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	8270D	626297
500-216192-3	STN2 0-2.5	Total/NA	Solid	8270D	626297
500-216192-5	STN2 4-6	Total/NA	Solid	8270D	626297
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	8270D	626297
500-216192-7	STN3 2.5-4	Total/NA	Solid	8270D	626297
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	8270D	626297
500-216192-9	STN4 4-6	Total/NA	Solid	8270D	626297
500-216192-10	STN5 2-4	Total/NA	Solid	8270D	626297
500-216192-12	STN6 8-10	Total/NA	Solid	8270D	626297
500-216192-13	STN7 1.5-3	Total/NA	Solid	8270D	626297
MB 480-626297/1-A	Method Blank	Total/NA	Solid	8270D	626297
LCS 480-626297/2-A	Lab Control Sample	Total/NA	Solid	8270D	626297

Prep Batch: 626456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-14	STN7 4-6	Total/NA	Solid	3550C	
500-216192-15	STN8 0-2.5	Total/NA	Solid	3550C	
500-216192-16	STN8 6-8	Total/NA	Solid	3550C	
500-216192-17	STN9 1-2.5	Total/NA	Solid	3550C	
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	3550C	
500-216192-19	STN10 0-2.25	Total/NA	Solid	3550C	
500-216192-19 - DL	STN10 0-2.25	Total/NA	Solid	3550C	
500-216192-20	STN10 8-9.5	Total/NA	Solid	3550C	
500-216192-21	STN11 0-2	Total/NA	Solid	3550C	
500-216192-22	STN11 10.5-12	Total/NA	Solid	3550C	
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	3550C	
500-216192-24	STN12 8-10	Total/NA	Solid	3550C	
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	3550C	
500-216192-26	STN14 0-2	Total/NA	Solid	3550C	
500-216192-27	STN15 0-1	Total/NA	Solid	3550C	
500-216192-28	STN16 0-1.5	Total/NA	Solid	3550C	
500-216192-29 - DL	STN16 3.5-5	Total/NA	Solid	3550C	
500-216192-29	STN16 3.5-5	Total/NA	Solid	3550C	
500-216192-30	STN17 0-1.25	Total/NA	Solid	3550C	
500-216192-31	STN18 0-1.5	Total/NA	Solid	3550C	
500-216192-32	STN19 0-1	Total/NA	Solid	3550C	

GC/MS Semi VOA (Continued)

Prep Batch: 626456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-33	STN20 0-1	Total/NA	Solid	3550C	
MB 480-626456/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-626456/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 480-626456/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Prep Batch: 626461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-34	STN20 1-3	Total/NA	Solid	3550C	
MB 480-626461/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-626461/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 480-626461/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 626547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-11	STN6 0-2	Total/NA	Solid	8270D	626297

Analysis Batch: 626621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-14	STN7 4-6	Total/NA	Solid	8270D	626456
500-216192-15	STN8 0-2.5	Total/NA	Solid	8270D	626456
500-216192-16	STN8 6-8	Total/NA	Solid	8270D	626456
500-216192-17	STN9 1-2.5	Total/NA	Solid	8270D	626456
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	8270D	626456
500-216192-19	STN10 0-2.25	Total/NA	Solid	8270D	626456
500-216192-20	STN10 8-9.5	Total/NA	Solid	8270D	626456
500-216192-21	STN11 0-2	Total/NA	Solid	8270D	626456
500-216192-22	STN11 10.5-12	Total/NA	Solid	8270D	626456
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	8270D	626456
500-216192-24	STN12 8-10	Total/NA	Solid	8270D	626456
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	8270D	626456
500-216192-26	STN14 0-2	Total/NA	Solid	8270D	626456
500-216192-27	STN15 0-1	Total/NA	Solid	8270D	626456
500-216192-28	STN16 0-1.5	Total/NA	Solid	8270D	626456
500-216192-29	STN16 3.5-5	Total/NA	Solid	8270D	626456
500-216192-30	STN17 0-1.25	Total/NA	Solid	8270D	626456
500-216192-31	STN18 0-1.5	Total/NA	Solid	8270D	626456
500-216192-32	STN19 0-1	Total/NA	Solid	8270D	626456
500-216192-33	STN20 0-1	Total/NA	Solid	8270D	626456
MB 480-626456/1-A	Method Blank	Total/NA	Solid	8270D	626456
LCS 480-626456/2-A	Lab Control Sample	Total/NA	Solid	8270D	626456
LCSD 480-626456/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	626456

Analysis Batch: 626647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-34	STN20 1-3	Total/NA	Solid	8270D	626461
MB 480-626461/1-A	Method Blank	Total/NA	Solid	8270D	626461
LCS 480-626461/2-A	Lab Control Sample	Total/NA	Solid	8270D	626461
LCSD 480-626461/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	626461

GC/MS Semi VOA

Analysis Batch: 626960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-19 - DL	STN10 0-2.25	Total/NA	Solid	8270D	626456
500-216192-29 - DL	STN16 3.5-5	Total/NA	Solid	8270D	626456

Leach Batch: 656363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	1311	
500-216192-37	STN-B	TCLP	Solid	1311	
LB 500-656363/1-E	Method Blank	TCLP	Solid	1311	

Prep Batch: 657440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	3510C	656363
500-216192-37	STN-B	TCLP	Solid	3510C	656363
LB 500-656363/1-E	Method Blank	TCLP	Solid	3510C	656363
MB 500-657440/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 500-657440/2-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 657579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	8270D	657440
500-216192-37	STN-B	TCLP	Solid	8270D	657440
LB 500-656363/1-E	Method Blank	TCLP	Solid	8270D	657440
MB 500-657440/1-A	Method Blank	Total/NA	Solid	8270D	657440
LCS 500-657440/2-A	Lab Control Sample	Total/NA	Solid	8270D	657440

GC Semi VOA

Prep Batch: 655886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	3541	
500-216192-37	STN-B	Total/NA	Solid	3541	
MB 500-655886/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-655886/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 656715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	8082A	655886
500-216192-37	STN-B	Total/NA	Solid	8082A	655886
MB 500-655886/1-A	Method Blank	Total/NA	Solid	8082A	655886
LCS 500-655886/2-A	Lab Control Sample	Total/NA	Solid	8082A	655886

Metals

Leach Batch: 656363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	1311	
500-216192-37	STN-B	TCLP	Solid	1311	
LB 500-656363/1-B	Method Blank	TCLP	Solid	1311	
LB 500-656363/1-C	Method Blank	TCLP	Solid	1311	

Metals

Prep Batch: 656563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	7470A	656363
500-216192-37	STN-B	TCLP	Solid	7470A	656363
LB 500-656363/1-B	Method Blank	TCLP	Solid	7470A	656363
MB 500-656563/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-656563/14-A	Lab Control Sample	Total/NA	Solid	7470A	

Prep Batch: 656616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	3010A	656363
500-216192-37	STN-B	TCLP	Solid	3010A	656363
LB 500-656363/1-C	Method Blank	TCLP	Solid	3010A	656363
LCS 500-656616/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 656704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	7470A	656563
500-216192-37	STN-B	TCLP	Solid	7470A	656563
LB 500-656363/1-B	Method Blank	TCLP	Solid	7470A	656563
MB 500-656563/12-A	Method Blank	Total/NA	Solid	7470A	656563
LCS 500-656563/14-A	Lab Control Sample	Total/NA	Solid	7470A	656563

Prep Batch: 656834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	3050B	
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	3050B	
500-216192-3	STN2 0-2.5	Total/NA	Solid	3050B	
500-216192-5	STN2 4-6	Total/NA	Solid	3050B	
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	3050B	
500-216192-7	STN3 2.5-4	Total/NA	Solid	3050B	
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	3050B	
500-216192-9	STN4 4-6	Total/NA	Solid	3050B	
500-216192-10	STN5 2-4	Total/NA	Solid	3050B	
500-216192-11	STN6 0-2	Total/NA	Solid	3050B	
500-216192-12	STN6 8-10	Total/NA	Solid	3050B	
500-216192-13	STN7 1.5-3	Total/NA	Solid	3050B	
500-216192-14	STN7 4-6	Total/NA	Solid	3050B	
500-216192-15	STN8 0-2.5	Total/NA	Solid	3050B	
500-216192-16	STN8 6-8	Total/NA	Solid	3050B	
500-216192-17	STN9 1-2.5	Total/NA	Solid	3050B	
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	3050B	
500-216192-19	STN10 0-2.25	Total/NA	Solid	3050B	
500-216192-20	STN10 8-9.5	Total/NA	Solid	3050B	
500-216192-21	STN11 0-2	Total/NA	Solid	3050B	
MB 500-656834/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-656834/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-216192-1 MS	STN1 0.25-2.5	Total/NA	Solid	3050B	
500-216192-1 MSD	STN1 0.25-2.5	Total/NA	Solid	3050B	
500-216192-1 DU	STN1 0.25-2.5	Total/NA	Solid	3050B	

Metals

Prep Batch: 656864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	7471B	
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	7471B	
500-216192-3	STN2 0-2.5	Total/NA	Solid	7471B	
500-216192-5	STN2 4-6	Total/NA	Solid	7471B	
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	7471B	
500-216192-7	STN3 2.5-4	Total/NA	Solid	7471B	
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	7471B	
500-216192-9	STN4 4-6	Total/NA	Solid	7471B	
500-216192-10	STN5 2-4	Total/NA	Solid	7471B	
500-216192-11	STN6 0-2	Total/NA	Solid	7471B	
500-216192-12	STN6 8-10	Total/NA	Solid	7471B	
500-216192-13	STN7 1.5-3	Total/NA	Solid	7471B	
500-216192-14	STN7 4-6	Total/NA	Solid	7471B	
500-216192-15	STN8 0-2.5	Total/NA	Solid	7471B	
500-216192-16	STN8 6-8	Total/NA	Solid	7471B	
500-216192-17	STN9 1-2.5	Total/NA	Solid	7471B	
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	7471B	
500-216192-19	STN10 0-2.25	Total/NA	Solid	7471B	
500-216192-20	STN10 8-9.5	Total/NA	Solid	7471B	
500-216192-21	STN11 0-2	Total/NA	Solid	7471B	
MB 500-656864/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-656864/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-216192-9 MS	STN4 4-6	Total/NA	Solid	7471B	
500-216192-9 MSD	STN4 4-6	Total/NA	Solid	7471B	
500-216192-9 DU	STN4 4-6	Total/NA	Solid	7471B	

Prep Batch: 656949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-22	STN11 10.5-12	Total/NA	Solid	3050B	
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	3050B	
500-216192-24	STN12 8-10	Total/NA	Solid	3050B	
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	3050B	
500-216192-26	STN14 0-2	Total/NA	Solid	3050B	
500-216192-27	STN15 0-1	Total/NA	Solid	3050B	
500-216192-28	STN16 0-1.5	Total/NA	Solid	3050B	
500-216192-29	STN16 3.5-5	Total/NA	Solid	3050B	
500-216192-30	STN17 0-1.25	Total/NA	Solid	3050B	
500-216192-31	STN18 0-1.5	Total/NA	Solid	3050B	
500-216192-32	STN19 0-1	Total/NA	Solid	3050B	
500-216192-33	STN20 0-1	Total/NA	Solid	3050B	
500-216192-34	STN20 1-3	Total/NA	Solid	3050B	
MB 500-656949/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-656949/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 500-656949/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
500-216192-22 MS	STN11 10.5-12	Total/NA	Solid	3050B	
500-216192-22 MSD	STN11 10.5-12	Total/NA	Solid	3050B	
500-216192-22 DU	STN11 10.5-12	Total/NA	Solid	3050B	

Analysis Batch: 657070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	TCLP	Solid	6010C	656616

Metals (Continued)

Analysis Batch: 657070 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-37	STN-B	TCLP	Solid	6010C	656616
LB 500-656363/1-C	Method Blank	TCLP	Solid	6010C	656616
LCS 500-656616/2-A	Lab Control Sample	Total/NA	Solid	6010C	656616

Analysis Batch: 657076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	6010C	656834
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	6010C	656834
500-216192-3	STN2 0-2.5	Total/NA	Solid	6010C	656834
500-216192-5	STN2 4-6	Total/NA	Solid	6010C	656834
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	6010C	656834
500-216192-7	STN3 2.5-4	Total/NA	Solid	6010C	656834
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	6010C	656834
500-216192-9	STN4 4-6	Total/NA	Solid	6010C	656834
500-216192-10	STN5 2-4	Total/NA	Solid	6010C	656834
500-216192-11	STN6 0-2	Total/NA	Solid	6010C	656834
500-216192-12	STN6 8-10	Total/NA	Solid	6010C	656834
500-216192-13	STN7 1.5-3	Total/NA	Solid	6010C	656834
500-216192-14	STN7 4-6	Total/NA	Solid	6010C	656834
500-216192-15	STN8 0-2.5	Total/NA	Solid	6010C	656834
500-216192-16	STN8 6-8	Total/NA	Solid	6010C	656834
500-216192-17	STN9 1-2.5	Total/NA	Solid	6010C	656834
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	6010C	656834
500-216192-19	STN10 0-2.25	Total/NA	Solid	6010C	656834
500-216192-20	STN10 8-9.5	Total/NA	Solid	6010C	656834
500-216192-21	STN11 0-2	Total/NA	Solid	6010C	656834
MB 500-656834/1-A	Method Blank	Total/NA	Solid	6010C	656834
LCS 500-656834/2-A	Lab Control Sample	Total/NA	Solid	6010C	656834
500-216192-1 MS	STN1 0.25-2.5	Total/NA	Solid	6010C	656834
500-216192-1 MSD	STN1 0.25-2.5	Total/NA	Solid	6010C	656834
500-216192-1 DU	STN1 0.25-2.5	Total/NA	Solid	6010C	656834

Prep Batch: 657118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-22	STN11 10.5-12	Total/NA	Solid	7471B	
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	7471B	
500-216192-24	STN12 8-10	Total/NA	Solid	7471B	
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	7471B	
500-216192-26	STN14 0-2	Total/NA	Solid	7471B	
500-216192-27	STN15 0-1	Total/NA	Solid	7471B	
500-216192-28	STN16 0-1.5	Total/NA	Solid	7471B	
500-216192-29	STN16 3.5-5	Total/NA	Solid	7471B	
500-216192-30	STN17 0-1.25	Total/NA	Solid	7471B	
500-216192-31	STN18 0-1.5	Total/NA	Solid	7471B	
500-216192-32	STN19 0-1	Total/NA	Solid	7471B	
500-216192-33	STN20 0-1	Total/NA	Solid	7471B	
500-216192-34	STN20 1-3	Total/NA	Solid	7471B	
MB 500-657118/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-657118/13-A	Lab Control Sample	Total/NA	Solid	7471B	
500-216192-23 MS	STN12 3.5-4.5	Total/NA	Solid	7471B	
500-216192-23 MSD	STN12 3.5-4.5	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 657118 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-23 DU	STN12 3.5-4.5	Total/NA	Solid	7471B	

Analysis Batch: 657123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	7471B	656864
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	7471B	656864
500-216192-3	STN2 0-2.5	Total/NA	Solid	7471B	656864
500-216192-5	STN2 4-6	Total/NA	Solid	7471B	656864
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	7471B	656864
500-216192-7	STN3 2.5-4	Total/NA	Solid	7471B	656864
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	7471B	656864
500-216192-9	STN4 4-6	Total/NA	Solid	7471B	656864
500-216192-10	STN5 2-4	Total/NA	Solid	7471B	656864
500-216192-11	STN6 0-2	Total/NA	Solid	7471B	656864
500-216192-12	STN6 8-10	Total/NA	Solid	7471B	656864
500-216192-13	STN7 1.5-3	Total/NA	Solid	7471B	656864
500-216192-14	STN7 4-6	Total/NA	Solid	7471B	656864
500-216192-15	STN8 0-2.5	Total/NA	Solid	7471B	656864
500-216192-16	STN8 6-8	Total/NA	Solid	7471B	656864
500-216192-17	STN9 1-2.5	Total/NA	Solid	7471B	656864
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	7471B	656864
500-216192-19	STN10 0-2.25	Total/NA	Solid	7471B	656864
500-216192-20	STN10 8-9.5	Total/NA	Solid	7471B	656864
500-216192-21	STN11 0-2	Total/NA	Solid	7471B	656864
MB 500-656864/12-A	Method Blank	Total/NA	Solid	7471B	656864
LCS 500-656864/13-A	Lab Control Sample	Total/NA	Solid	7471B	656864
500-216192-9 MS	STN4 4-6	Total/NA	Solid	7471B	656864
500-216192-9 MSD	STN4 4-6	Total/NA	Solid	7471B	656864
500-216192-9 DU	STN4 4-6	Total/NA	Solid	7471B	656864

Prep Batch: 657159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	3050B	
500-216192-10	STN5 2-4	Total/NA	Solid	3050B	
500-216192-11	STN6 0-2	Total/NA	Solid	3050B	
500-216192-15	STN8 0-2.5	Total/NA	Solid	3050B	
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	3050B	
MB 500-657159/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-657159/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-216192-8 MS	STN4 0.5-2.5	Total/NA	Solid	3050B	
500-216192-8 MSD	STN4 0.5-2.5	Total/NA	Solid	3050B	
500-216192-8 DU	STN4 0.5-2.5	Total/NA	Solid	3050B	

Analysis Batch: 657250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-3	STN2 0-2.5	Total/NA	Solid	6010C	656834
500-216192-22	STN11 10.5-12	Total/NA	Solid	6010C	656949
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	6010C	656949
500-216192-24	STN12 8-10	Total/NA	Solid	6010C	656949
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	6010C	656949
500-216192-26	STN14 0-2	Total/NA	Solid	6010C	656949

Metals (Continued)

Analysis Batch: 657250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-27	STN15 0-1	Total/NA	Solid	6010C	656949
500-216192-28	STN16 0-1.5	Total/NA	Solid	6010C	656949
500-216192-29	STN16 3.5-5	Total/NA	Solid	6010C	656949
500-216192-30	STN17 0-1.25	Total/NA	Solid	6010C	656949
500-216192-31	STN18 0-1.5	Total/NA	Solid	6010C	656949
500-216192-32	STN19 0-1	Total/NA	Solid	6010C	656949
500-216192-33	STN20 0-1	Total/NA	Solid	6010C	656949
500-216192-34	STN20 1-3	Total/NA	Solid	6010C	656949
MB 500-656949/1-A	Method Blank	Total/NA	Solid	6010C	656949
LCS 500-656949/2-A	Lab Control Sample	Total/NA	Solid	6010C	656949
500-216192-22 MS	STN11 10.5-12	Total/NA	Solid	6010C	656949
500-216192-22 MSD	STN11 10.5-12	Total/NA	Solid	6010C	656949
500-216192-22 DU	STN11 10.5-12	Total/NA	Solid	6010C	656949

Analysis Batch: 657296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-22	STN11 10.5-12	Total/NA	Solid	7471B	657118
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	7471B	657118
500-216192-24	STN12 8-10	Total/NA	Solid	7471B	657118
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	7471B	657118
500-216192-26	STN14 0-2	Total/NA	Solid	7471B	657118
500-216192-27	STN15 0-1	Total/NA	Solid	7471B	657118
500-216192-28	STN16 0-1.5	Total/NA	Solid	7471B	657118
500-216192-29	STN16 3.5-5	Total/NA	Solid	7471B	657118
500-216192-30	STN17 0-1.25	Total/NA	Solid	7471B	657118
500-216192-31	STN18 0-1.5	Total/NA	Solid	7471B	657118
500-216192-32	STN19 0-1	Total/NA	Solid	7471B	657118
500-216192-33	STN20 0-1	Total/NA	Solid	7471B	657118
500-216192-34	STN20 1-3	Total/NA	Solid	7471B	657118
MB 500-657118/12-A	Method Blank	Total/NA	Solid	7471B	657118
LCS 500-657118/13-A	Lab Control Sample	Total/NA	Solid	7471B	657118
500-216192-23 MS	STN12 3.5-4.5	Total/NA	Solid	7471B	657118
500-216192-23 MSD	STN12 3.5-4.5	Total/NA	Solid	7471B	657118
500-216192-23 DU	STN12 3.5-4.5	Total/NA	Solid	7471B	657118

Analysis Batch: 657342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-656949/2-A ^2	Lab Control Sample	Total/NA	Solid	6010C	656949

Analysis Batch: 657429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-657159/2-A	Lab Control Sample	Total/NA	Solid	6010C	657159

Analysis Batch: 657680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	6010C	657159
500-216192-10	STN5 2-4	Total/NA	Solid	6010C	657159
500-216192-11	STN6 0-2	Total/NA	Solid	6010C	657159
500-216192-15	STN8 0-2.5	Total/NA	Solid	6010C	657159
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	6010C	657159
MB 500-657159/1-A	Method Blank	Total/NA	Solid	6010C	657159

Metals (Continued)

Analysis Batch: 657680 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-8 MS	STN4 0.5-2.5	Total/NA	Solid	6010C	657159
500-216192-8 MSD	STN4 0.5-2.5	Total/NA	Solid	6010C	657159
500-216192-8 DU	STN4 0.5-2.5	Total/NA	Solid	6010C	657159

General Chemistry

Analysis Batch: 656027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	Moisture	
500-216192-37	STN-B	Total/NA	Solid	Moisture	

Analysis Batch: 656155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9045D	
500-216192-37	STN-B	Total/NA	Solid	9045D	
LCS 500-656155/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-656155/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

Prep Batch: 656395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9030B	
500-216192-37	STN-B	Total/NA	Solid	9030B	
MB 500-656395/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 500-656395/2-A	Lab Control Sample	Total/NA	Solid	9030B	

Analysis Batch: 656558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9095B	
500-216192-37	STN-B	Total/NA	Solid	9095B	
500-216192-37 DU	STN-B	Total/NA	Solid	9095B	

Analysis Batch: 656610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-1	STN1 0.25-2.5	Total/NA	Solid	Moisture	
500-216192-2	STN1 4.5-6.5	Total/NA	Solid	Moisture	
500-216192-3	STN2 0-2.5	Total/NA	Solid	Moisture	
500-216192-4	FD1	Total/NA	Solid	Moisture	
500-216192-5	STN2 4-6	Total/NA	Solid	Moisture	
500-216192-6	STN3 0.25-2.5	Total/NA	Solid	Moisture	
500-216192-7	STN3 2.5-4	Total/NA	Solid	Moisture	
500-216192-8	STN4 0.5-2.5	Total/NA	Solid	Moisture	
500-216192-9	STN4 4-6	Total/NA	Solid	Moisture	
500-216192-10	STN5 2-4	Total/NA	Solid	Moisture	
500-216192-11	STN6 0-2	Total/NA	Solid	Moisture	
500-216192-12	STN6 8-10	Total/NA	Solid	Moisture	
500-216192-13	STN7 1.5-3	Total/NA	Solid	Moisture	
500-216192-14	STN7 4-6	Total/NA	Solid	Moisture	
500-216192-15	STN8 0-2.5	Total/NA	Solid	Moisture	
500-216192-2 DU	STN1 4.5-6.5	Total/NA	Solid	Moisture	

General Chemistry

Analysis Batch: 656614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-16	STN8 6-8	Total/NA	Solid	Moisture	
500-216192-17	STN9 1-2.5	Total/NA	Solid	Moisture	
500-216192-18	STN9 4.5-6.5	Total/NA	Solid	Moisture	
500-216192-19	STN10 0-2.25	Total/NA	Solid	Moisture	
500-216192-20	STN10 8-9.5	Total/NA	Solid	Moisture	
500-216192-21	STN11 0-2	Total/NA	Solid	Moisture	
500-216192-22	STN11 10.5-12	Total/NA	Solid	Moisture	
500-216192-23	STN12 3.5-4.5	Total/NA	Solid	Moisture	
500-216192-24	STN12 8-10	Total/NA	Solid	Moisture	
500-216192-25	STN13 2.5-3.5	Total/NA	Solid	Moisture	
500-216192-26	STN14 0-2	Total/NA	Solid	Moisture	
500-216192-27	STN15 0-1	Total/NA	Solid	Moisture	
500-216192-28	STN16 0-1.5	Total/NA	Solid	Moisture	
500-216192-29	STN16 3.5-5	Total/NA	Solid	Moisture	
500-216192-30	STN17 0-1.25	Total/NA	Solid	Moisture	
500-216192-31	STN18 0-1.5	Total/NA	Solid	Moisture	
500-216192-32	STN19 0-1	Total/NA	Solid	Moisture	
500-216192-33	STN20 0-1	Total/NA	Solid	Moisture	
500-216192-34	STN20 1-3	Total/NA	Solid	Moisture	
500-216192-27 DU	STN15 0-1	Total/NA	Solid	Moisture	

Analysis Batch: 656958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9034	656395
500-216192-37	STN-B	Total/NA	Solid	9034	656395
MB 500-656395/1-A	Method Blank	Total/NA	Solid	9034	656395
LCS 500-656395/2-A	Lab Control Sample	Total/NA	Solid	9034	656395

Prep Batch: 657120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9010C	
500-216192-37	STN-B	Total/NA	Solid	9010C	
MB 500-657120/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 500-657120/2-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 500-657120/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LLCS 500-657120/4-A	Lab Control Sample	Total/NA	Solid	9010C	

Prep Batch: 657174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	Distill/Phenol	
500-216192-37	STN-B	Total/NA	Solid	Distill/Phenol	
MB 500-657174/1-A	Method Blank	Total/NA	Solid	Distill/Phenol	
LCS 500-657174/2-A	Lab Control Sample	Total/NA	Solid	Distill/Phenol	

Analysis Batch: 657221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9012B	657120
500-216192-37	STN-B	Total/NA	Solid	9012B	657120
MB 500-657120/1-A	Method Blank	Total/NA	Solid	9012B	657120
HLCS 500-657120/2-A	Lab Control Sample	Total/NA	Solid	9012B	657120
LCS 500-657120/3-A	Lab Control Sample	Total/NA	Solid	9012B	657120

General Chemistry (Continued)

Analysis Batch: 657221 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 500-657120/4-A	Lab Control Sample	Total/NA	Solid	9012B	657120

Analysis Batch: 657362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9066	657174
500-216192-37	STN-B	Total/NA	Solid	9066	657174
MB 500-657174/1-A	Method Blank	Total/NA	Solid	9066	657174
LCS 500-657174/2-A	Lab Control Sample	Total/NA	Solid	9066	657174

Prep Batch: 721655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	5050	
500-216192-37	STN-B	Total/NA	Solid	5050	
MB 680-721655/1-A	Method Blank	Total/NA	Solid	5050	
LCS 680-721655/2-A	Lab Control Sample	Total/NA	Solid	5050	

Analysis Batch: 721677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-216192-36	STN-A	Total/NA	Solid	9251	721655
500-216192-37	STN-B	Total/NA	Solid	9251	721655
MB 680-721655/1-A	Method Blank	Total/NA	Solid	9251	721655
LCS 680-721655/2-A	Lab Control Sample	Total/NA	Solid	9251	721655

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-126)	(72-124)	(75-120)	(75-120)
500-216192-3	STN2 0-2.5	106	110	95	93
500-216192-4	FD1	104	110	94	93
500-216192-28	STN16 0-1.5	106	110	95	94
500-216192-29	STN16 3.5-5	105	110	97	92
500-216192-35	Trip Blank	100	107	95	93
LB3 500-655406/21-A	Method Blank	89	86	97	106
LCS 500-655406/22-A	Lab Control Sample	98	89	101	103
LCS 500-656625/4	Lab Control Sample	91	88	100	104
LCS 500-656731/9	Lab Control Sample	91	87	99	103
LCS 500-657061/5	Lab Control Sample	99	109	95	94
LCS 500-657241/29	Lab Control Sample	99	106	94	94
MB 500-656625/6	Method Blank	93	88	103	101
MB 500-656731/6	Method Blank	96	88	105	101
MB 500-657061/7	Method Blank	102	113	94	93
MB 500-657241/30	Method Blank	102	110	97	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-126)	(72-124)	(75-120)	(75-120)
500-216192-36	STN-A	96	85	104	101
500-216192-37	STN-B	97	87	107	100
LB 500-656367/1-A	Method Blank	93	85	101	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	NBZ	TBP	2FP	TPHd14	PHL
Lab Sample ID	Client Sample ID	(60-120)	(53-120)	(54-120)	(52-120)	(79-130)	(54-120)
500-216192-1	STN1 0.25-2.5	81	78	82	66	93	69
500-216192-2	STN1 4.5-6.5	77	75	87	64	98	66
500-216192-3	STN2 0-2.5	61	55	61	41 S1-	67 S1-	45 S1-
500-216192-5	STN2 4-6	84	87	92	69	105	81
500-216192-6	STN3 0.25-2.5	63	53	79	55	89	63
500-216192-7	STN3 2.5-4	78	82	85	65	97	68
500-216192-8	STN4 0.5-2.5	42 S1-	38 S1-	45 S1-	31 S1-	52 S1-	33 S1-

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 500-216192-1
Project/Site: C Reiss Coal Dock Superior - 193707141

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	FBP (60-120)	NBZ (53-120)	TBP (54-120)	2FP (52-120)	TPHd14 (79-130)	PHL (54-120)
500-216192-9	STN4 4-6	85	87	92	65	110	68
500-216192-10	STN5 2-4	46 S1-	48 S1-	0 S1-	0 S1-	47 S1-	46 S1-
500-216192-11	STN6 0-2	90	82	104	68	104	74
500-216192-12	STN6 8-10	79	79	91	65	93	72
500-216192-13	STN7 1.5-3	89	86	95	67	98	77
500-216192-14	STN7 4-6	85	85	95	66	108	75
500-216192-15	STN8 0-2.5	0 S1-	0 S1-	0 S1-	0 S1-	0 S1-	0 S1-
500-216192-16	STN8 6-8	82	79	82	63	101	69
500-216192-17	STN9 1-2.5	0 S1-	0 S1-	0 S1-	0 S1-	0 S1-	0 S1-
500-216192-18	STN9 4.5-6.5	85	84	89	65	104	73
500-216192-19	STN10 0-2.25	0 S1-	93	0 S1-	0 S1-	115	76
500-216192-19 - DL	STN10 0-2.25	0 S1-	0 S1-	0 S1-	0 S1-	7 S1-	0 S1-
500-216192-20	STN10 8-9.5	72	66	78	59	93	65
500-216192-21	STN11 0-2	0 S1-	68	0 S1-	0 S1-	84	67
500-216192-22	STN11 10.5-12	93	83	100	66	104	76
500-216192-23	STN12 3.5-4.5	88	90	83	74	99	74
500-216192-24	STN12 8-10	93	88	112	68	102	77
500-216192-25	STN13 2.5-3.5	0 S1-	71	0 S1-	0 S1-	78 S1-	0 S1-
500-216192-26	STN14 0-2	88	87	95	69	93	77
500-216192-27	STN15 0-1	100	99	0 S1-	32 S1-	99	81
500-216192-28	STN16 0-1.5	85	85	90	64	81	72
500-216192-29	STN16 3.5-5	84	130 S1+	96	71	91	80
500-216192-29 - DL	STN16 3.5-5	97	104	79	70	91	76
500-216192-30	STN17 0-1.25	87	77	44 S1-	56	93	73
500-216192-31	STN18 0-1.5	90	83	101	58	80	67
500-216192-32	STN19 0-1	90	93	37 S1-	51 S1-	94	74
500-216192-33	STN20 0-1	89	83	109	72	90	76
500-216192-34	STN20 1-3	89	82	89	76	113	79
LCS 480-626297/2-A	Lab Control Sample	86	92	95	66	103	75
LCS 480-626456/2-A	Lab Control Sample	90	90	102	68	103	75
LCS 480-626461/2-A	Lab Control Sample	88	75	101	67	101	71
LCSD 480-626456/3-A	Lab Control Sample Dup	86	91	106	70	106	81
LCSD 480-626461/3-A	Lab Control Sample Dup	83	73	97	63	106	67
MB 480-626297/1-A	Method Blank	86	83	89	68	95	75
MB 480-626456/1-A	Method Blank	81	80	97	62	105	73
MB 480-626461/1-A	Method Blank	86	78	76	69	106	72

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: Stantec Consulting Corp. Job ID: 500-216192-1
Project/Site: C Reiss Coal Dock Superior - 193707141

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(34-110)	(27-110)	(36-120)	(20-100)	(40-145)	(40-145)
LCS 500-657440/2-A	Lab Control Sample	75	72	68	40	89	76
MB 500-657440/1-A	Method Blank	83	73	77	38	107	75

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(34-110)	(27-110)	(36-120)	(20-100)	(40-145)	(40-145)
500-216192-36	STN-A	91	57	79	29	101	56
500-216192-37	STN-B	99	57	81	28	110	64
LB 500-656363/1-E	Method Blank	83	54	80	30	117	78

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(49-129)	(37-121)
500-216192-36	STN-A	67	89
500-216192-37	STN-B	66	77
LCS 500-655886/2-A	Lab Control Sample	74	100
MB 500-655886/1-A	Method Blank	81	104

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LB3 500-655406/21-A
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 655406

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1-Dichloroethane	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1-Dichloroethene	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,1-Dichloropropene	<15		50	15	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2,3-Trichloropropane	<21		100	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2-Dibromoethane	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2-Dichloroethane	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,2-Dichloropropane	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,3-Dichloropropane	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
2,2-Dichloropropane	<22		50	22	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
2-Chlorotoluene	<16		50	16	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
4-Chlorotoluene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Benzene	<7.3		13	7.3	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Bromobenzene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Bromochloromethane	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Dichlorobromomethane	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Bromoform	<24		50	24	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Bromomethane	<40		150	40	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Carbon tetrachloride	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Chlorobenzene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Chloroethane	<25		50	25	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Chloroform	<19		100	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Chloromethane	<16		50	16	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Dibromochloromethane	<24		50	24	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Dibromomethane	<14		50	14	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Dichlorodifluoromethane	<34		150	34	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Hexachlorobutadiene	<22		50	22	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Isopropyl ether	<14		50	14	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Isopropylbenzene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Methylene Chloride	<82		250	82	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Naphthalene	<17		50	17	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
n-Butylbenzene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
N-Propylbenzene	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-655406/21-A
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 655406

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
sec-Butylbenzene	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Styrene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
tert-Butylbenzene	<20		50	20	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Tetrachloroethene	<19		50	19	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Toluene	<7.4		13	7.4	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Trichloroethene	<8.2		25	8.2	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Trichlorofluoromethane	<21		50	21	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Vinyl chloride	<13		50	13	ug/Kg		05/08/22 12:35	05/14/22 10:10	50
Xylenes, Total	<11		25	11	ug/Kg		05/08/22 12:35	05/14/22 10:10	50

Surrogate	*LB3 %Recovery*	*LB3 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*75 - 126*	*05/08/22 12:35*	*05/14/22 10:10*	*50*
4-Bromofluorobenzene (Surr)	*86*		*72 - 124*	*05/08/22 12:35*	*05/14/22 10:10*	*50*
Dibromofluoromethane (Surr)	*97*		*75 - 120*	*05/08/22 12:35*	*05/14/22 10:10*	*50*
Toluene-d8 (Surr)	*106*		*75 - 120*	*05/08/22 12:35*	*05/14/22 10:10*	*50*

Lab Sample ID: LCS 500-655406/22-A
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 655406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	2500	2460		ug/Kg		98	70 - 125
1,1,1-Trichloroethane	2500	2350		ug/Kg		94	70 - 125
1,1,2,2-Tetrachloroethane	2500	2290		ug/Kg		91	62 - 140
1,1,2-Trichloroethane	2500	2530		ug/Kg		101	71 - 130
1,1-Dichloroethane	2500	2280		ug/Kg		91	70 - 125
1,1-Dichloroethene	2500	2340		ug/Kg		94	67 - 122
1,1-Dichloropropene	2500	2420		ug/Kg		97	70 - 121
1,2,3-Trichlorobenzene	2500	2330		ug/Kg		93	51 - 145
1,2,3-Trichloropropane	2500	2340		ug/Kg		93	50 - 133
1,2,4-Trichlorobenzene	2500	2330		ug/Kg		93	57 - 137
1,2,4-Trimethylbenzene	2500	2330		ug/Kg		93	70 - 123
1,2-Dibromo-3-Chloropropane	2500	2190		ug/Kg		88	56 - 123
1,2-Dibromoethane	2500	2370		ug/Kg		95	70 - 125
1,2-Dichlorobenzene	2500	2450		ug/Kg		98	70 - 125
1,2-Dichloroethane	2500	2460		ug/Kg		98	68 - 127
1,2-Dichloropropane	2500	2300		ug/Kg		92	67 - 130
1,3,5-Trimethylbenzene	2500	2330		ug/Kg		93	70 - 123
1,3-Dichlorobenzene	2500	2390		ug/Kg		96	70 - 125
1,3-Dichloropropane	2500	2460		ug/Kg		98	62 - 136
1,4-Dichlorobenzene	2500	2380		ug/Kg		95	70 - 120
2,2-Dichloropropane	2500	2070		ug/Kg		83	58 - 139
2-Chlorotoluene	2500	2320		ug/Kg		93	70 - 125
4-Chlorotoluene	2500	2310		ug/Kg		92	68 - 124
Benzene	2500	2480		ug/Kg		99	70 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-655406/22-A
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 655406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromobenzene	2500	2450		ug/Kg		98	70 - 122
Bromochloromethane	2500	2670		ug/Kg		107	65 - 122
Dichlorobromomethane	2500	2440		ug/Kg		98	69 - 120
Bromoform	2500	2600		ug/Kg		104	56 - 132
Bromomethane	2500	2610		ug/Kg		104	40 - 152
Carbon tetrachloride	2500	2390		ug/Kg		95	59 - 133
Chlorobenzene	2500	2540		ug/Kg		101	70 - 120
Chloroethane	2500	2970		ug/Kg		119	48 - 136
Chloroform	2500	2400		ug/Kg		96	70 - 120
Chloromethane	2500	1360	*-	ug/Kg		54	56 - 152
cis-1,2-Dichloroethene	2500	2480		ug/Kg		99	70 - 125
cis-1,3-Dichloropropene	2500	2400		ug/Kg		96	64 - 127
Dibromochloromethane	2500	2600		ug/Kg		104	68 - 125
Dibromomethane	2500	2490		ug/Kg		99	70 - 120
Dichlorodifluoromethane	2500	912	*-	ug/Kg		36	40 - 159
Ethylbenzene	2500	2270		ug/Kg		91	70 - 123
Hexachlorobutadiene	2500	2400		ug/Kg		96	51 - 150
Isopropylbenzene	2500	2360		ug/Kg		94	70 - 126
Methyl tert-butyl ether	2500	2350		ug/Kg		94	55 - 123
Methylene Chloride	2500	2440		ug/Kg		98	69 - 125
Naphthalene	2500	2210		ug/Kg		88	53 - 144
n-Butylbenzene	2500	2300		ug/Kg		92	68 - 125
N-Propylbenzene	2500	2330		ug/Kg		93	69 - 127
p-Isopropyltoluene	2500	2350		ug/Kg		94	70 - 125
sec-Butylbenzene	2500	2410		ug/Kg		96	70 - 123
Styrene	2500	2510		ug/Kg		101	70 - 120
tert-Butylbenzene	2500	2380		ug/Kg		95	70 - 121
Tetrachloroethene	2500	2670		ug/Kg		107	70 - 128
Toluene	2500	2390		ug/Kg		96	70 - 125
trans-1,2-Dichloroethene	2500	2410		ug/Kg		97	70 - 125
trans-1,3-Dichloropropene	2500	2300		ug/Kg		92	62 - 128
Trichloroethene	2500	2550		ug/Kg		102	70 - 125
Trichlorofluoromethane	2500	2120		ug/Kg		85	55 - 128
Vinyl chloride	2500	1630		ug/Kg		65	64 - 126
Xylenes, Total	5000	4730		ug/Kg		95	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 126*
4-Bromofluorobenzene (Surr)	*89*		*72 - 124*
Dibromofluoromethane (Surr)	*101*		*75 - 120*
Toluene-d8 (Surr)	*103*		*75 - 120*

Lab Sample ID: MB 500-656625/6
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			05/14/22 09:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-656625/6
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			05/14/22 09:47	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			05/14/22 09:47	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			05/14/22 09:47	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			05/14/22 09:47	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			05/14/22 09:47	1
1,2,3-Trichlorobenzene	0.497	J	1.0	0.46	ug/Kg			05/14/22 09:47	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			05/14/22 09:47	1
1,2,4-Trichlorobenzene	0.422	J	1.0	0.34	ug/Kg			05/14/22 09:47	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			05/14/22 09:47	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			05/14/22 09:47	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			05/14/22 09:47	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			05/14/22 09:47	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			05/14/22 09:47	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			05/14/22 09:47	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			05/14/22 09:47	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			05/14/22 09:47	1
Benzene	<0.15		0.25	0.15	ug/Kg			05/14/22 09:47	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			05/14/22 09:47	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/Kg			05/14/22 09:47	1
Bromoform	<0.48		1.0	0.48	ug/Kg			05/14/22 09:47	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			05/14/22 09:47	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			05/14/22 09:47	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			05/14/22 09:47	1
Chloroform	<0.37		2.0	0.37	ug/Kg			05/14/22 09:47	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			05/14/22 09:47	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			05/14/22 09:47	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			05/14/22 09:47	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			05/14/22 09:47	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			05/14/22 09:47	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			05/14/22 09:47	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			05/14/22 09:47	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			05/14/22 09:47	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			05/14/22 09:47	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			05/14/22 09:47	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			05/14/22 09:47	1
Naphthalene	0.481	J	1.0	0.33	ug/Kg			05/14/22 09:47	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			05/14/22 09:47	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/14/22 09:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-656625/6
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.39		1.0	0.39	ug/Kg			05/14/22 09:47	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/14/22 09:47	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			05/14/22 09:47	1
Toluene	<0.15		0.25	0.15	ug/Kg			05/14/22 09:47	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			05/14/22 09:47	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			05/14/22 09:47	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			05/14/22 09:47	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			05/14/22 09:47	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			05/14/22 09:47	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			05/14/22 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 126*		*05/14/22 09:47*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 124*		*05/14/22 09:47*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 120*		*05/14/22 09:47*	*1*
Toluene-d8 (Surr)	*101*		*75 - 120*		*05/14/22 09:47*	*1*

Lab Sample ID: LCS 500-656625/4
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	49.2		ug/Kg		98	70 - 125
1,1,1-Trichloroethane	50.0	51.1		ug/Kg		102	70 - 125
1,1,2,2-Tetrachloroethane	50.0	42.1		ug/Kg		84	62 - 140
1,1,2-Trichloroethane	50.0	48.4		ug/Kg		97	71 - 130
1,1-Dichloroethane	50.0	46.6		ug/Kg		93	70 - 125
1,1-Dichloroethene	50.0	53.8		ug/Kg		108	67 - 122
1,1-Dichloropropene	50.0	50.8		ug/Kg		102	70 - 121
1,2,3-Trichlorobenzene	50.0	46.6		ug/Kg		93	51 - 145
1,2,3-Trichloropropane	50.0	41.9		ug/Kg		84	50 - 133
1,2,4-Trichlorobenzene	50.0	49.1		ug/Kg		98	57 - 137
1,2,4-Trimethylbenzene	50.0	48.6		ug/Kg		97	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	39.8		ug/Kg		80	56 - 123
1,2-Dibromoethane	50.0	45.7		ug/Kg		91	70 - 125
1,2-Dichlorobenzene	50.0	48.3		ug/Kg		97	70 - 125
1,2-Dichloroethane	50.0	45.8		ug/Kg		92	68 - 127
1,2-Dichloropropane	50.0	44.0		ug/Kg		88	67 - 130
1,3,5-Trimethylbenzene	50.0	48.5		ug/Kg		97	70 - 123
1,3-Dichlorobenzene	50.0	48.1		ug/Kg		96	70 - 125
1,3-Dichloropropane	50.0	47.2		ug/Kg		94	62 - 136
1,4-Dichlorobenzene	50.0	47.4		ug/Kg		95	70 - 120
2,2-Dichloropropane	50.0	47.4		ug/Kg		95	58 - 139
2-Chlorotoluene	50.0	47.1		ug/Kg		94	70 - 125
4-Chlorotoluene	50.0	47.4		ug/Kg		95	68 - 124
Benzene	50.0	50.0		ug/Kg		100	70 - 120
Bromobenzene	50.0	47.3		ug/Kg		95	70 - 122
Bromochloromethane	50.0	51.2		ug/Kg		102	65 - 122

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-656625/4
Matrix: Solid
Analysis Batch: 656625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorobromomethane	50.0	48.5		ug/Kg		97	69 - 120
Bromoform	50.0	49.4		ug/Kg		99	56 - 132
Bromomethane	50.0	65.9		ug/Kg		132	40 - 152
Carbon tetrachloride	50.0	53.0		ug/Kg		106	59 - 133
Chlorobenzene	50.0	51.5		ug/Kg		103	70 - 120
Chloroethane	50.0	60.3		ug/Kg		121	48 - 136
Chloroform	50.0	47.7		ug/Kg		95	70 - 120
Chloromethane	50.0	36.9		ug/Kg		74	56 - 152
cis-1,2-Dichloroethene	50.0	49.9		ug/Kg		100	70 - 125
cis-1,3-Dichloropropene	50.0	47.3		ug/Kg		95	64 - 127
Dibromochloromethane	50.0	49.6		ug/Kg		99	68 - 125
Dibromomethane	50.0	46.5		ug/Kg		93	70 - 120
Dichlorodifluoromethane	50.0	35.7		ug/Kg		71	40 - 159
Ethylbenzene	50.0	48.5		ug/Kg		97	70 - 123
Hexachlorobutadiene	50.0	52.5		ug/Kg		105	51 - 150
Isopropylbenzene	50.0	49.8		ug/Kg		100	70 - 126
Methyl tert-butyl ether	50.0	44.2		ug/Kg		88	55 - 123
Methylene Chloride	50.0	48.3		ug/Kg		97	69 - 125
Naphthalene	50.0	42.4		ug/Kg		85	53 - 144
n-Butylbenzene	50.0	51.2		ug/Kg		102	68 - 125
N-Propylbenzene	50.0	49.6		ug/Kg		99	69 - 127
p-Isopropyltoluene	50.0	50.4		ug/Kg		101	70 - 125
sec-Butylbenzene	50.0	51.7		ug/Kg		103	70 - 123
Styrene	50.0	51.3		ug/Kg		103	70 - 120
tert-Butylbenzene	50.0	50.0		ug/Kg		100	70 - 121
Tetrachloroethene	50.0	57.2		ug/Kg		114	70 - 128
Toluene	50.0	49.8		ug/Kg		100	70 - 125
trans-1,2-Dichloroethene	50.0	51.6		ug/Kg		103	70 - 125
trans-1,3-Dichloropropene	50.0	45.5		ug/Kg		91	62 - 128
Trichloroethene	50.0	52.2		ug/Kg		104	70 - 125
Trichlorofluoromethane	50.0	52.2		ug/Kg		104	55 - 128
Vinyl chloride	50.0	44.7		ug/Kg		89	64 - 126
Xylenes, Total	100	99.7		ug/Kg		100	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 126*
4-Bromofluorobenzene (Surr)	*88*		*72 - 124*
Dibromofluoromethane (Surr)	*100*		*75 - 120*
Toluene-d8 (Surr)	*104*		*75 - 120*

Lab Sample ID: MB 500-656731/6
Matrix: Solid
Analysis Batch: 656731

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<0.0025		0.0050	0.0025	mg/L			05/15/22 13:17	1
1,1-Dichloroethene	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
1,2-Dichloroethane	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-656731/6
Matrix: Solid
Analysis Batch: 656731

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
Carbon tetrachloride	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
Chlorobenzene	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
Chloroform	<0.0010		0.0020	0.0010	mg/L			05/15/22 13:17	1
Tetrachloroethene	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
Trichloroethene	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1
Vinyl chloride	<0.00050		0.0010	0.00050	mg/L			05/15/22 13:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 126*		*05/15/22 13:17*	*1*
4-Bromofluorobenzene (Surr)	*88*		*72 - 124*		*05/15/22 13:17*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 120*		*05/15/22 13:17*	*1*
Toluene-d8 (Surr)	*101*		*75 - 120*		*05/15/22 13:17*	*1*

Lab Sample ID: LCS 500-656731/9
Matrix: Solid
Analysis Batch: 656731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	0.0500	0.0383		mg/L		77	46 - 144
1,1-Dichloroethene	0.0500	0.0509		mg/L		102	67 - 122
1,2-Dichloroethane	0.0500	0.0456		mg/L		91	68 - 127
Benzene	0.0500	0.0482		mg/L		96	70 - 120
Carbon tetrachloride	0.0500	0.0500		mg/L		100	59 - 133
Chlorobenzene	0.0500	0.0492		mg/L		98	70 - 120
Chloroform	0.0500	0.0464		mg/L		93	70 - 120
Tetrachloroethene	0.0500	0.0552		mg/L		110	70 - 128
Trichloroethene	0.0500	0.0504		mg/L		101	70 - 125
Vinyl chloride	0.0500	0.0389		mg/L		78	64 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 126*
4-Bromofluorobenzene (Surr)	*87*		*72 - 124*
Dibromofluoromethane (Surr)	*99*		*75 - 120*
Toluene-d8 (Surr)	*103*		*75 - 120*

Lab Sample ID: MB 500-657061/7
Matrix: Solid
Analysis Batch: 657061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			05/17/22 12:02	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			05/17/22 12:02	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			05/17/22 12:02	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			05/17/22 12:02	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			05/17/22 12:02	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			05/17/22 12:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-657061/7
Matrix: Solid
Analysis Batch: 657061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			05/17/22 12:02	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			05/17/22 12:02	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			05/17/22 12:02	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			05/17/22 12:02	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			05/17/22 12:02	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			05/17/22 12:02	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			05/17/22 12:02	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			05/17/22 12:02	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			05/17/22 12:02	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			05/17/22 12:02	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			05/17/22 12:02	1
Benzene	<0.15		0.25	0.15	ug/Kg			05/17/22 12:02	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			05/17/22 12:02	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/Kg			05/17/22 12:02	1
Bromoform	<0.48		1.0	0.48	ug/Kg			05/17/22 12:02	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			05/17/22 12:02	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			05/17/22 12:02	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			05/17/22 12:02	1
Chloroform	<0.37		2.0	0.37	ug/Kg			05/17/22 12:02	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			05/17/22 12:02	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			05/17/22 12:02	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			05/17/22 12:02	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			05/17/22 12:02	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			05/17/22 12:02	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			05/17/22 12:02	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			05/17/22 12:02	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			05/17/22 12:02	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			05/17/22 12:02	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			05/17/22 12:02	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			05/17/22 12:02	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			05/17/22 12:02	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			05/17/22 12:02	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/17/22 12:02	1
Styrene	<0.39		1.0	0.39	ug/Kg			05/17/22 12:02	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/17/22 12:02	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			05/17/22 12:02	1
Toluene	<0.15		0.25	0.15	ug/Kg			05/17/22 12:02	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			05/17/22 12:02	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			05/17/22 12:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-657061/7
Matrix: Solid
Analysis Batch: 657061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.16		0.50	0.16	ug/Kg			05/17/22 12:02	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			05/17/22 12:02	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			05/17/22 12:02	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			05/17/22 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 126*		*05/17/22 12:02*	*1*
4-Bromofluorobenzene (Surr)	*113*		*72 - 124*		*05/17/22 12:02*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 120*		*05/17/22 12:02*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*05/17/22 12:02*	*1*

Lab Sample ID: LCS 500-657061/5
Matrix: Solid
Analysis Batch: 657061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	48.5		ug/Kg		97	70 - 125
1,1,1-Trichloroethane	50.0	48.2		ug/Kg		96	70 - 125
1,1,2,2-Tetrachloroethane	50.0	54.2		ug/Kg		108	62 - 140
1,1,2-Trichloroethane	50.0	48.2		ug/Kg		96	71 - 130
1,1-Dichloroethane	50.0	53.8		ug/Kg		108	70 - 125
1,1-Dichloroethene	50.0	46.2		ug/Kg		92	67 - 122
1,1-Dichloropropene	50.0	50.3		ug/Kg		101	70 - 121
1,2,3-Trichlorobenzene	50.0	45.9		ug/Kg		92	51 - 145
1,2,3-Trichloropropane	50.0	52.4		ug/Kg		105	50 - 133
1,2,4-Trichlorobenzene	50.0	47.5		ug/Kg		95	57 - 137
1,2,4-Trimethylbenzene	50.0	53.8		ug/Kg		108	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	52.7		ug/Kg		105	56 - 123
1,2-Dibromoethane	50.0	48.3		ug/Kg		97	70 - 125
1,2-Dichlorobenzene	50.0	50.0		ug/Kg		100	70 - 125
1,2-Dichloroethane	50.0	52.7		ug/Kg		105	68 - 127
1,2-Dichloropropane	50.0	55.5		ug/Kg		111	67 - 130
1,3,5-Trimethylbenzene	50.0	53.8		ug/Kg		108	70 - 123
1,3-Dichlorobenzene	50.0	50.3		ug/Kg		101	70 - 125
1,3-Dichloropropane	50.0	51.4		ug/Kg		103	62 - 136
1,4-Dichlorobenzene	50.0	49.5		ug/Kg		99	70 - 120
2,2-Dichloropropane	50.0	47.8		ug/Kg		96	58 - 139
2-Chlorotoluene	50.0	54.1		ug/Kg		108	70 - 125
4-Chlorotoluene	50.0	54.5		ug/Kg		109	68 - 124
Benzene	50.0	49.5		ug/Kg		99	70 - 120
Bromobenzene	50.0	51.3		ug/Kg		103	70 - 122
Bromochloromethane	50.0	47.9		ug/Kg		96	65 - 122
Dichlorobromomethane	50.0	49.5		ug/Kg		99	69 - 120
Bromoform	50.0	51.2		ug/Kg		102	56 - 132
Bromomethane	50.0	70.1		ug/Kg		140	40 - 152
Carbon tetrachloride	50.0	49.4		ug/Kg		99	59 - 133
Chlorobenzene	50.0	47.8		ug/Kg		96	70 - 120
Chloroethane	50.0	59.8		ug/Kg		120	48 - 136

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-657061/5
Matrix: Solid
Analysis Batch: 657061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	46.7		ug/Kg		93	70 - 120
Chloromethane	50.0	52.0		ug/Kg		104	56 - 152
cis-1,2-Dichloroethene	50.0	48.5		ug/Kg		97	70 - 125
cis-1,3-Dichloropropene	50.0	50.9		ug/Kg		102	64 - 127
Dibromochloromethane	50.0	48.1		ug/Kg		96	68 - 125
Dibromomethane	50.0	49.1		ug/Kg		98	70 - 120
Dichlorodifluoromethane	50.0	35.8		ug/Kg		72	40 - 159
Ethylbenzene	50.0	49.2		ug/Kg		98	70 - 123
Hexachlorobutadiene	50.0	50.4		ug/Kg		101	51 - 150
Isopropylbenzene	50.0	53.8		ug/Kg		108	70 - 126
Methyl tert-butyl ether	50.0	51.4		ug/Kg		103	55 - 123
Methylene Chloride	50.0	47.6		ug/Kg		95	69 - 125
Naphthalene	50.0	45.3		ug/Kg		91	53 - 144
n-Butylbenzene	50.0	53.6		ug/Kg		107	68 - 125
N-Propylbenzene	50.0	54.6		ug/Kg		109	69 - 127
p-Isopropyltoluene	50.0	53.5		ug/Kg		107	70 - 125
sec-Butylbenzene	50.0	53.5		ug/Kg		107	70 - 123
Styrene	50.0	52.2		ug/Kg		104	70 - 120
tert-Butylbenzene	50.0	53.8		ug/Kg		108	70 - 121
Tetrachloroethene	50.0	47.5		ug/Kg		95	70 - 128
Toluene	50.0	50.9		ug/Kg		102	70 - 125
trans-1,2-Dichloroethene	50.0	47.4		ug/Kg		95	70 - 125
trans-1,3-Dichloropropene	50.0	51.4		ug/Kg		103	62 - 128
Trichloroethene	50.0	47.0		ug/Kg		94	70 - 125
Trichlorofluoromethane	50.0	47.4		ug/Kg		95	55 - 128
Vinyl chloride	50.0	49.0		ug/Kg		98	64 - 126
Xylenes, Total	100	102		ug/Kg		102	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 126*
4-Bromofluorobenzene (Surr)	*109*		*72 - 124*
Dibromofluoromethane (Surr)	*95*		*75 - 120*
Toluene-d8 (Surr)	*94*		*75 - 120*

Lab Sample ID: MB 500-657241/30
Matrix: Solid
Analysis Batch: 657241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			05/18/22 12:09	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			05/18/22 12:09	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			05/18/22 12:09	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			05/18/22 12:09	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			05/18/22 12:09	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			05/18/22 12:09	1
1,2,3-Trichlorobenzene	0.771	J	1.0	0.46	ug/Kg			05/18/22 12:09	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			05/18/22 12:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-657241/30
Matrix: Solid
Analysis Batch: 657241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			05/18/22 12:09	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			05/18/22 12:09	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			05/18/22 12:09	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			05/18/22 12:09	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			05/18/22 12:09	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			05/18/22 12:09	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			05/18/22 12:09	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			05/18/22 12:09	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			05/18/22 12:09	1
Benzene	<0.15		0.25	0.15	ug/Kg			05/18/22 12:09	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			05/18/22 12:09	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/Kg			05/18/22 12:09	1
Bromoform	<0.48		1.0	0.48	ug/Kg			05/18/22 12:09	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			05/18/22 12:09	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			05/18/22 12:09	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			05/18/22 12:09	1
Chloroform	<0.37		2.0	0.37	ug/Kg			05/18/22 12:09	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			05/18/22 12:09	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			05/18/22 12:09	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			05/18/22 12:09	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			05/18/22 12:09	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			05/18/22 12:09	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			05/18/22 12:09	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			05/18/22 12:09	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			05/18/22 12:09	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			05/18/22 12:09	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			05/18/22 12:09	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			05/18/22 12:09	1
Naphthalene	0.729	J	1.0	0.33	ug/Kg			05/18/22 12:09	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			05/18/22 12:09	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/18/22 12:09	1
Styrene	<0.39		1.0	0.39	ug/Kg			05/18/22 12:09	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/18/22 12:09	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			05/18/22 12:09	1
Toluene	<0.15		0.25	0.15	ug/Kg			05/18/22 12:09	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			05/18/22 12:09	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			05/18/22 12:09	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			05/18/22 12:09	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			05/18/22 12:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-657241/30
Matrix: Solid
Analysis Batch: 657241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			05/18/22 12:09	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			05/18/22 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 126*		*05/18/22 12:09*	*1*
4-Bromofluorobenzene (Surr)	*110*		*72 - 124*		*05/18/22 12:09*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 120*		*05/18/22 12:09*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*05/18/22 12:09*	*1*

Lab Sample ID: LCS 500-657241/29
Matrix: Solid
Analysis Batch: 657241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	50.9		ug/Kg		102	70 - 125
1,1,1-Trichloroethane	50.0	50.8		ug/Kg		102	70 - 125
1,1,2,2-Tetrachloroethane	50.0	54.3		ug/Kg		109	62 - 140
1,1,2-Trichloroethane	50.0	49.2		ug/Kg		98	71 - 130
1,1-Dichloroethane	50.0	55.9		ug/Kg		112	70 - 125
1,1-Dichloroethene	50.0	48.8		ug/Kg		98	67 - 122
1,1-Dichloropropene	50.0	53.2		ug/Kg		106	70 - 121
1,2,3-Trichlorobenzene	50.0	47.5		ug/Kg		95	51 - 145
1,2,3-Trichloropropane	50.0	55.7		ug/Kg		111	50 - 133
1,2,4-Trichlorobenzene	50.0	49.0		ug/Kg		98	57 - 137
1,2,4-Trimethylbenzene	50.0	54.7		ug/Kg		109	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	55.4		ug/Kg		111	56 - 123
1,2-Dibromoethane	50.0	50.9		ug/Kg		102	70 - 125
1,2-Dichlorobenzene	50.0	50.6		ug/Kg		101	70 - 125
1,2-Dichloroethane	50.0	54.2		ug/Kg		108	68 - 127
1,2-Dichloropropane	50.0	56.7		ug/Kg		113	67 - 130
1,3,5-Trimethylbenzene	50.0	55.0		ug/Kg		110	70 - 123
1,3-Dichlorobenzene	50.0	50.9		ug/Kg		102	70 - 125
1,3-Dichloropropane	50.0	52.9		ug/Kg		106	62 - 136
1,4-Dichlorobenzene	50.0	50.0		ug/Kg		100	70 - 120
2,2-Dichloropropane	50.0	52.1		ug/Kg		104	58 - 139
2-Chlorotoluene	50.0	54.2		ug/Kg		108	70 - 125
4-Chlorotoluene	50.0	55.3		ug/Kg		111	68 - 124
Benzene	50.0	51.2		ug/Kg		102	70 - 120
Bromobenzene	50.0	51.0		ug/Kg		102	70 - 122
Bromochloromethane	50.0	47.7		ug/Kg		95	65 - 122
Dichlorobromomethane	50.0	51.1		ug/Kg		102	69 - 120
Bromoform	50.0	54.8		ug/Kg		110	56 - 132
Bromomethane	50.0	81.0	*+	ug/Kg		162	40 - 152
Carbon tetrachloride	50.0	52.5		ug/Kg		105	59 - 133
Chlorobenzene	50.0	49.8		ug/Kg		100	70 - 120
Chloroethane	50.0	61.3		ug/Kg		123	48 - 136
Chloroform	50.0	48.6		ug/Kg		97	70 - 120
Chloromethane	50.0	57.1		ug/Kg		114	56 - 152

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-657241/29
Matrix: Solid
Analysis Batch: 657241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	50.0	49.8		ug/Kg		100	70 - 125
cis-1,3-Dichloropropene	50.0	51.9		ug/Kg		104	64 - 127
Dibromochloromethane	50.0	51.0		ug/Kg		102	68 - 125
Dibromomethane	50.0	50.5		ug/Kg		101	70 - 120
Dichlorodifluoromethane	50.0	48.7		ug/Kg		97	40 - 159
Ethylbenzene	50.0	51.4		ug/Kg		103	70 - 123
Hexachlorobutadiene	50.0	52.6		ug/Kg		105	51 - 150
Isopropylbenzene	50.0	54.0		ug/Kg		108	70 - 126
Methyl tert-butyl ether	50.0	52.5		ug/Kg		105	55 - 123
Methylene Chloride	50.0	47.5		ug/Kg		95	69 - 125
Naphthalene	50.0	47.1		ug/Kg		94	53 - 144
n-Butylbenzene	50.0	55.4		ug/Kg		111	68 - 125
N-Propylbenzene	50.0	55.4		ug/Kg		111	69 - 127
p-Isopropyltoluene	50.0	54.8		ug/Kg		110	70 - 125
sec-Butylbenzene	50.0	54.2		ug/Kg		108	70 - 123
Styrene	50.0	54.7		ug/Kg		109	70 - 120
tert-Butylbenzene	50.0	53.9		ug/Kg		108	70 - 121
Tetrachloroethene	50.0	50.4		ug/Kg		101	70 - 128
Toluene	50.0	52.8		ug/Kg		106	70 - 125
trans-1,2-Dichloroethene	50.0	49.3		ug/Kg		99	70 - 125
trans-1,3-Dichloropropene	50.0	53.6		ug/Kg		107	62 - 128
Trichloroethene	50.0	48.8		ug/Kg		98	70 - 125
Trichlorofluoromethane	50.0	49.1		ug/Kg		98	55 - 128
Vinyl chloride	50.0	53.4		ug/Kg		107	64 - 126
Xylenes, Total	100	107		ug/Kg		107	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 126*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*
Dibromofluoromethane (Surr)	*94*		*75 - 120*
Toluene-d8 (Surr)	*94*		*75 - 120*

Lab Sample ID: LB 500-656367/1-A
Matrix: Solid
Analysis Batch: 656731

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<0.050		0.10	0.050	mg/L			05/15/22 15:37	20
1,1-Dichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
1,2-Dichloroethane	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Benzene	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Carbon tetrachloride	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Chlorobenzene	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Chloroform	<0.020		0.040	0.020	mg/L			05/15/22 15:37	20
Tetrachloroethene	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Trichloroethene	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20
Vinyl chloride	<0.010		0.020	0.010	mg/L			05/15/22 15:37	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 500-656367/1-A
Matrix: Solid
Analysis Batch: 656731

Client Sample ID: Method Blank
Prep Type: TCLP

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 126*		*05/15/22 15:37*	*20*
4-Bromofluorobenzene (Surr)	*85*		*72 - 124*		*05/15/22 15:37*	*20*
Dibromofluoromethane (Surr)	*101*		*75 - 120*		*05/15/22 15:37*	*20*
Toluene-d8 (Surr)	*101*		*75 - 120*		*05/15/22 15:37*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-626297/1-A
Matrix: Solid
Analysis Batch: 626427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<56		320	56	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
2-Methylnaphthalene	<33		170	33	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Acenaphthene	<24		170	24	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Acenaphthylene	<21		170	21	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Anthracene	<41		170	41	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Benzo[a]anthracene	<17		170	17	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Benzo[a]pyrene	<24		170	24	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Benzo[b]fluoranthene	<26		170	26	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Benzo[g,h,i]perylene	<18		170	18	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Benzo[k]fluoranthene	<21		170	21	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Chrysene	<37		170	37	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Dibenz(a,h)anthracene	<29		170	29	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Fluoranthene	<18		170	18	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Fluorene	<19		170	19	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Indeno[1,2,3-cd]pyrene	<20		170	20	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Naphthalene	<21		170	21	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Phenanthrene	<24		170	24	ug/Kg		05/16/22 15:21	05/17/22 18:17	1
Pyrene	<19		170	19	ug/Kg		05/16/22 15:21	05/17/22 18:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	*86*		*60 - 120*	*05/16/22 15:21*	*05/17/22 18:17*	*1*
Nitrobenzene-d5 (Surr)	*83*		*53 - 120*	*05/16/22 15:21*	*05/17/22 18:17*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*54 - 120*	*05/16/22 15:21*	*05/17/22 18:17*	*1*
2-Fluorophenol (Surr)	*68*		*52 - 120*	*05/16/22 15:21*	*05/17/22 18:17*	*1*
p-Terphenyl-d14 (Surr)	*95*		*79 - 130*	*05/16/22 15:21*	*05/17/22 18:17*	*1*
Phenol-d5 (Surr)	*75*		*54 - 120*	*05/16/22 15:21*	*05/17/22 18:17*	*1*

Lab Sample ID: LCS 480-626297/2-A
Matrix: Solid
Analysis Batch: 626427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 626297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1650	1460		ug/Kg		88	54 - 120
2-Methylnaphthalene	1650	1470		ug/Kg		89	59 - 120
Acenaphthene	1650	1580		ug/Kg		95	62 - 120
Acenaphthylene	1650	1430		ug/Kg		86	58 - 121

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-626297/2-A
Matrix: Solid
Analysis Batch: 626427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 626297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	1650	1630		ug/Kg		99	62 - 120
Benzo[a]anthracene	1650	1580		ug/Kg		96	65 - 120
Benzo[a]pyrene	1650	1540		ug/Kg		93	64 - 120
Benzo[b]fluoranthene	1650	1720		ug/Kg		104	64 - 120
Benzo[g,h,i]perylene	1650	1650		ug/Kg		100	45 - 145
Benzo[k]fluoranthene	1650	1790		ug/Kg		108	65 - 120
Chrysene	1650	1700		ug/Kg		103	64 - 120
Dibenz(a,h)anthracene	1650	1630		ug/Kg		99	54 - 132
Fluoranthene	1650	1650		ug/Kg		100	62 - 120
Fluorene	1650	1590		ug/Kg		96	63 - 120
Indeno[1,2,3-cd]pyrene	1650	1730		ug/Kg		104	56 - 134
Naphthalene	1650	1470		ug/Kg		89	55 - 120
Phenanthrene	1650	1650		ug/Kg		100	60 - 120
Pyrene	1650	1880		ug/Kg		113	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*86*		*60 - 120*
Nitrobenzene-d5 (Surr)	*92*		*53 - 120*
2,4,6-Tribromophenol (Surr)	*95*		*54 - 120*
2-Fluorophenol (Surr)	*66*		*52 - 120*
p-Terphenyl-d14 (Surr)	*103*		*79 - 130*
Phenol-d5 (Surr)	*75*		*54 - 120*

Lab Sample ID: MB 480-626456/1-A
Matrix: Solid
Analysis Batch: 626621

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<57		330	57	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
2-Methylnaphthalene	<34		170	34	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Acenaphthene	<25		170	25	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Acenaphthylene	<22		170	22	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Anthracene	<42		170	42	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Benzo[a]anthracene	<17		170	17	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Benzo[a]pyrene	<25		170	25	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Benzo[b]fluoranthene	<27		170	27	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Benzo[g,h,i]perylene	<18		170	18	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Benzo[k]fluoranthene	<22		170	22	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Chrysene	<38		170	38	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Dibenz(a,h)anthracene	<30		170	30	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Fluoranthene	<18		170	18	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Fluorene	<20		170	20	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Indeno[1,2,3-cd]pyrene	<21		170	21	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Naphthalene	<22		170	22	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Phenanthrene	<25		170	25	ug/Kg		05/17/22 15:29	05/18/22 16:48	1
Pyrene	<20		170	20	ug/Kg		05/17/22 15:29	05/18/22 16:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-626456/1-A
Matrix: Solid
Analysis Batch: 626621

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626456

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		60 - 120	05/17/22 15:29	05/18/22 16:48	1
Nitrobenzene-d5 (Surr)	80		53 - 120	05/17/22 15:29	05/18/22 16:48	1
2,4,6-Tribromophenol (Surr)	97		54 - 120	05/17/22 15:29	05/18/22 16:48	1
2-Fluorophenol (Surr)	62		52 - 120	05/17/22 15:29	05/18/22 16:48	1
p-Terphenyl-d14 (Surr)	105		79 - 130	05/17/22 15:29	05/18/22 16:48	1
Phenol-d5 (Surr)	73		54 - 120	05/17/22 15:29	05/18/22 16:48	1

Lab Sample ID: LCS 480-626456/2-A
Matrix: Solid
Analysis Batch: 626621

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 626456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1620	1420		ug/Kg		88	54 - 120
2-Methylnaphthalene	1620	1420		ug/Kg		88	59 - 120
Acenaphthene	1620	1550		ug/Kg		96	62 - 120
Acenaphthylene	1620	1330		ug/Kg		82	58 - 121
Anthracene	1620	1490		ug/Kg		92	62 - 120
Benzo[a]anthracene	1620	1450		ug/Kg		89	65 - 120
Benzo[a]pyrene	1620	1290		ug/Kg		79	64 - 120
Benzo[b]fluoranthene	1620	1350		ug/Kg		83	64 - 120
Benzo[g,h,i]perylene	1620	1510		ug/Kg		93	45 - 145
Benzo[k]fluoranthene	1620	1550		ug/Kg		95	65 - 120
Chrysene	1620	1550		ug/Kg		95	64 - 120
Dibenz(a,h)anthracene	1620	1450		ug/Kg		89	54 - 132
Fluoranthene	1620	1420		ug/Kg		87	62 - 120
Fluorene	1620	1440		ug/Kg		89	63 - 120
Indeno[1,2,3-cd]pyrene	1620	1470		ug/Kg		91	56 - 134
Naphthalene	1620	1460		ug/Kg		90	55 - 120
Phenanthrene	1620	1510		ug/Kg		93	60 - 120
Pyrene	1620	1800		ug/Kg		111	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	90		60 - 120
Nitrobenzene-d5 (Surr)	90		53 - 120
2,4,6-Tribromophenol (Surr)	102		54 - 120
2-Fluorophenol (Surr)	68		52 - 120
p-Terphenyl-d14 (Surr)	103		79 - 130
Phenol-d5 (Surr)	75		54 - 120

Lab Sample ID: LCSD 480-626456/3-A
Matrix: Solid
Analysis Batch: 626621

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 626456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1630	1440		ug/Kg		88	54 - 120	1	30
2-Methylnaphthalene	1630	1480		ug/Kg		90	59 - 120	4	21
Acenaphthene	1630	1640		ug/Kg		100	62 - 120	5	35
Acenaphthylene	1630	1430		ug/Kg		87	58 - 121	7	18

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-626456/3-A
Matrix: Solid
Analysis Batch: 626621

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 626456

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene			1630	1610		ug/Kg		98	62 - 120	7	15
Benzo[a]anthracene			1630	1580		ug/Kg		97	65 - 120	9	15
Benzo[a]pyrene			1630	1510	*1	ug/Kg		93	64 - 120	16	15
Benzo[b]fluoranthene			1630	1790	*1	ug/Kg		110	64 - 120	28	15
Benzo[g,h,i]perylene			1630	1660		ug/Kg		102	45 - 145	9	15
Benzo[k]fluoranthene			1630	1590		ug/Kg		97	65 - 120	2	22
Chrysene			1630	1590		ug/Kg		97	64 - 120	3	15
Dibenz(a,h)anthracene			1630	1680		ug/Kg		103	54 - 132	15	15
Fluoranthene			1630	1540		ug/Kg		94	62 - 120	8	15
Fluorene			1630	1600		ug/Kg		98	63 - 120	10	15
Indeno[1,2,3-cd]pyrene			1630	1690		ug/Kg		103	56 - 134	14	15
Naphthalene			1630	1490		ug/Kg		91	55 - 120	2	29
Phenanthrene			1630	1600		ug/Kg		98	60 - 120	6	15
Pyrene			1630	1810		ug/Kg		111	61 - 133	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*86*		*60 - 120*
Nitrobenzene-d5 (Surr)	*91*		*53 - 120*
2,4,6-Tribromophenol (Surr)	*106*		*54 - 120*
2-Fluorophenol (Surr)	*70*		*52 - 120*
p-Terphenyl-d14 (Surr)	*106*		*79 - 130*
Phenol-d5 (Surr)	*81*		*54 - 120*

Lab Sample ID: MB 480-626461/1-A
Matrix: Solid
Analysis Batch: 626647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<56		320	56	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
2-Methylnaphthalene	<33		170	33	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Acenaphthene	<25		170	25	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Acenaphthylene	<22		170	22	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Anthracene	<41		170	41	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Benzo[a]anthracene	<17		170	17	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Benzo[a]pyrene	<25		170	25	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Benzo[b]fluoranthene	<27		170	27	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Benzo[g,h,i]perylene	<18		170	18	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Benzo[k]fluoranthene	<22		170	22	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Chrysene	<37		170	37	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Dibenz(a,h)anthracene	<29		170	29	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Fluoranthene	<18		170	18	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Fluorene	<20		170	20	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Indeno[1,2,3-cd]pyrene	<21		170	21	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Naphthalene	<22		170	22	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Phenanthrene	<25		170	25	ug/Kg		05/17/22 15:37	05/18/22 19:36	1
Pyrene	<20		170	20	ug/Kg		05/17/22 15:37	05/18/22 19:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-626461/1-A
Matrix: Solid
Analysis Batch: 626647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626461

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		60 - 120	05/17/22 15:37	05/18/22 19:36	1
Nitrobenzene-d5 (Surr)	78		53 - 120	05/17/22 15:37	05/18/22 19:36	1
2,4,6-Tribromophenol (Surr)	76		54 - 120	05/17/22 15:37	05/18/22 19:36	1
2-Fluorophenol (Surr)	69		52 - 120	05/17/22 15:37	05/18/22 19:36	1
p-Terphenyl-d14 (Surr)	106		79 - 130	05/17/22 15:37	05/18/22 19:36	1
Phenol-d5 (Surr)	72		54 - 120	05/17/22 15:37	05/18/22 19:36	1

Lab Sample ID: LCS 480-626461/2-A
Matrix: Solid
Analysis Batch: 626647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 626461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1650	1400		ug/Kg		85	54 - 120
2-Methylnaphthalene	1650	1320		ug/Kg		80	59 - 120
Acenaphthene	1650	1520		ug/Kg		92	62 - 120
Acenaphthylene	1650	1430		ug/Kg		87	58 - 121
Anthracene	1650	1660		ug/Kg		101	62 - 120
Benzo[a]anthracene	1650	1680		ug/Kg		102	65 - 120
Benzo[a]pyrene	1650	1480		ug/Kg		90	64 - 120
Benzo[b]fluoranthene	1650	1560		ug/Kg		95	64 - 120
Benzo[g,h,i]perylene	1650	1980		ug/Kg		120	45 - 145
Benzo[k]fluoranthene	1650	1630		ug/Kg		99	65 - 120
Chrysene	1650	1650		ug/Kg		100	64 - 120
Dibenz(a,h)anthracene	1650	1870		ug/Kg		114	54 - 132
Fluoranthene	1650	1650		ug/Kg		100	62 - 120
Fluorene	1650	1470		ug/Kg		89	63 - 120
Indeno[1,2,3-cd]pyrene	1650	1900		ug/Kg		116	56 - 134
Naphthalene	1650	1360		ug/Kg		83	55 - 120
Phenanthrene	1650	1630		ug/Kg		99	60 - 120
Pyrene	1650	1740		ug/Kg		106	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	88		60 - 120
Nitrobenzene-d5 (Surr)	75		53 - 120
2,4,6-Tribromophenol (Surr)	101		54 - 120
2-Fluorophenol (Surr)	67		52 - 120
p-Terphenyl-d14 (Surr)	101		79 - 130
Phenol-d5 (Surr)	71		54 - 120

Lab Sample ID: LCSD 480-626461/3-A
Matrix: Solid
Analysis Batch: 626647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 626461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1630	1280		ug/Kg		78	54 - 120	9	30
2-Methylnaphthalene	1630	1240		ug/Kg		76	59 - 120	6	21
Acenaphthene	1630	1470		ug/Kg		90	62 - 120	3	35
Acenaphthylene	1630	1360		ug/Kg		84	58 - 121	5	18

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-626461/3-A
Matrix: Solid
Analysis Batch: 626647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 626461

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene			1630	1590		ug/Kg		98	62 - 120	4	15
Benzo[a]anthracene			1630	1620		ug/Kg		99	65 - 120	4	15
Benzo[a]pyrene			1630	1450		ug/Kg		89	64 - 120	2	15
Benzo[b]fluoranthene			1630	1520		ug/Kg		93	64 - 120	2	15
Benzo[g,h,i]perylene			1630	1910		ug/Kg		117	45 - 145	4	15
Benzo[k]fluoranthene			1630	1610		ug/Kg		99	65 - 120	1	22
Chrysene			1630	1580		ug/Kg		97	64 - 120	4	15
Dibenz(a,h)anthracene			1630	1790		ug/Kg		110	54 - 132	4	15
Fluoranthene			1630	1470		ug/Kg		90	62 - 120	12	15
Fluorene			1630	1450		ug/Kg		89	63 - 120	1	15
Indeno[1,2,3-cd]pyrene			1630	1860		ug/Kg		114	56 - 134	2	15
Naphthalene			1630	1290		ug/Kg		79	55 - 120	5	29
Phenanthrene			1630	1560		ug/Kg		95	60 - 120	4	15
Pyrene			1630	1810		ug/Kg		111	61 - 133	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*83*		*60 - 120*
Nitrobenzene-d5 (Surr)	*73*		*53 - 120*
2,4,6-Tribromophenol (Surr)	*97*		*54 - 120*
2-Fluorophenol (Surr)	*63*		*52 - 120*
p-Terphenyl-d14 (Surr)	*106*		*79 - 130*
Phenol-d5 (Surr)	*67*		*54 - 120*

Lab Sample ID: MB 500-657440/1-A
Matrix: Solid
Analysis Batch: 657579

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657440

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0020		0.0020	0.0020	mg/L		05/19/22 07:32	05/19/22 17:11	1
2,4-Dinitrotoluene	<0.0010		0.0010	0.0010	mg/L		05/19/22 07:32	05/19/22 17:11	1
Hexachlorobenzene	<0.00050		0.00050	0.00050	mg/L		05/19/22 07:32	05/19/22 17:11	1
Hexachlorobutadiene	<0.0050		0.0050	0.0050	mg/L		05/19/22 07:32	05/19/22 17:11	1
Hexachloroethane	<0.0050		0.0050	0.0050	mg/L		05/19/22 07:32	05/19/22 17:11	1
2-Methylphenol	<0.0020		0.0020	0.0020	mg/L		05/19/22 07:32	05/19/22 17:11	1
3 & 4 Methylphenol	<0.0020		0.0020	0.0020	mg/L		05/19/22 07:32	05/19/22 17:11	1
Nitrobenzene	<0.0010		0.0010	0.0010	mg/L		05/19/22 07:32	05/19/22 17:11	1
Pentachlorophenol	<0.020		0.020	0.020	mg/L		05/19/22 07:32	05/19/22 17:11	1
Pyridine	<0.020		0.020	0.020	mg/L		05/19/22 07:32	05/19/22 17:11	1
2,4,5-Trichlorophenol	<0.010		0.010	0.010	mg/L		05/19/22 07:32	05/19/22 17:11	1
2,4,6-Trichlorophenol	<0.0050		0.0050	0.0050	mg/L		05/19/22 07:32	05/19/22 17:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*34 - 110*	*05/19/22 07:32*	*05/19/22 17:11*	*1*
2-Fluorophenol (Surr)	*73*		*27 - 110*	*05/19/22 07:32*	*05/19/22 17:11*	*1*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*05/19/22 07:32*	*05/19/22 17:11*	*1*
Phenol-d5 (Surr)	*38*		*20 - 100*	*05/19/22 07:32*	*05/19/22 17:11*	*1*
Terphenyl-d14 (Surr)	*107*		*40 - 145*	*05/19/22 07:32*	*05/19/22 17:11*	*1*
2,4,6-Tribromophenol (Surr)	*75*		*40 - 145*	*05/19/22 07:32*	*05/19/22 17:11*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 500-657440/2-A
Matrix: Solid
Analysis Batch: 657579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657440

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0230		mg/L		57	23 - 110
2,4-Dinitrotoluene	0.0400	0.0294		mg/L		74	63 - 129
Hexachlorobenzene	0.0400	0.0350		mg/L		88	61 - 126
Hexachlorobutadiene	0.0400	0.0254		mg/L		64	20 - 100
Hexachloroethane	0.0400	0.0212		mg/L		53	20 - 100
2-Methylphenol	0.0400	0.0309		mg/L		77	53 - 115
3 & 4 Methylphenol	0.0400	0.0299		mg/L		75	50 - 116
Nitrobenzene	0.0400	0.0289		mg/L		72	54 - 121
Pentachlorophenol	0.0800	0.0617		mg/L		77	42 - 148
Pyridine	0.0800	0.0314		mg/L		39	15 - 110
2,4,5-Trichlorophenol	0.0400	0.0298		mg/L		74	63 - 124
2,4,6-Trichlorophenol	0.0400	0.0296		mg/L		74	62 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*34 - 110*
2-Fluorophenol (Surr)	*72*		*27 - 110*
Nitrobenzene-d5 (Surr)	*68*		*36 - 120*
Phenol-d5 (Surr)	*40*		*20 - 100*
Terphenyl-d14 (Surr)	*89*		*40 - 145*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 145*

Lab Sample ID: LB 500-656363/1-E
Matrix: Solid
Analysis Batch: 657579

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 657440

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.020		0.020	0.020	mg/L		05/19/22 07:32	05/19/22 18:25	1
2,4-Dinitrotoluene	<0.010		0.010	0.010	mg/L		05/19/22 07:32	05/19/22 18:25	1
Hexachlorobenzene	<0.0050		0.0050	0.0050	mg/L		05/19/22 07:32	05/19/22 18:25	1
Hexachlorobutadiene	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 18:25	1
Hexachloroethane	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 18:25	1
2-Methylphenol	<0.020		0.020	0.020	mg/L		05/19/22 07:32	05/19/22 18:25	1
3 & 4 Methylphenol	<0.020		0.020	0.020	mg/L		05/19/22 07:32	05/19/22 18:25	1
Nitrobenzene	<0.010		0.010	0.010	mg/L		05/19/22 07:32	05/19/22 18:25	1
Pentachlorophenol	<0.20		0.20	0.20	mg/L		05/19/22 07:32	05/19/22 18:25	1
Pyridine	<0.20		0.20	0.20	mg/L		05/19/22 07:32	05/19/22 18:25	1
2,4,5-Trichlorophenol	<0.10		0.10	0.10	mg/L		05/19/22 07:32	05/19/22 18:25	1
2,4,6-Trichlorophenol	<0.050		0.050	0.050	mg/L		05/19/22 07:32	05/19/22 18:25	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*34 - 110*	*05/19/22 07:32*	*05/19/22 18:25*	*1*
2-Fluorophenol (Surr)	*54*		*27 - 110*	*05/19/22 07:32*	*05/19/22 18:25*	*1*
Nitrobenzene-d5 (Surr)	*80*		*36 - 120*	*05/19/22 07:32*	*05/19/22 18:25*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*05/19/22 07:32*	*05/19/22 18:25*	*1*
Terphenyl-d14 (Surr)	*117*		*40 - 145*	*05/19/22 07:32*	*05/19/22 18:25*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*40 - 145*	*05/19/22 07:32*	*05/19/22 18:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-655886/1-A
Matrix: Solid
Analysis Batch: 656715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 655886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0066		0.017	0.0066	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1221	<0.0066		0.017	0.0066	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1232	<0.0045		0.017	0.0045	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1242	<0.0065		0.017	0.0065	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1248	<0.0079		0.017	0.0079	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1254	<0.0057		0.017	0.0057	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1260	<0.0063		0.017	0.0063	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1262	<0.0055		0.017	0.0055	mg/Kg		05/11/22 07:27	05/15/22 11:05	1
PCB-1268	<0.0097		0.017	0.0097	mg/Kg		05/11/22 07:27	05/15/22 11:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*49 - 129*	*05/11/22 07:27*	*05/15/22 11:05*	*1*
DCB Decachlorobiphenyl	*104*		*37 - 121*	*05/11/22 07:27*	*05/15/22 11:05*	*1*

Lab Sample ID: LCS 500-655886/2-A
Matrix: Solid
Analysis Batch: 656715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 655886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.131		mg/Kg		79	57 - 120
PCB-1260	0.167	0.143		mg/Kg		86	61 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*49 - 129*
DCB Decachlorobiphenyl	*100*		*37 - 121*

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-656616/2-A
Matrix: Solid
Analysis Batch: 657070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.112		mg/L		112	80 - 120
Barium	0.500	0.500		mg/L		100	80 - 120
Cadmium	0.0500	0.0527		mg/L		105	80 - 120
Chromium	0.200	0.191		mg/L		96	80 - 120
Copper	0.250	0.267		mg/L		107	80 - 120
Lead	0.100	0.0916		mg/L		92	80 - 120
Nickel	0.500	0.504		mg/L		101	80 - 120
Selenium	0.100	0.116		mg/L		116	80 - 120
Silver	0.0500	0.0542		mg/L		108	80 - 120
Zinc	0.500	0.563		mg/L		113	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 500-656834/1-A
Matrix: Solid
Analysis Batch: 657076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.34		1.0	0.34	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Barium	<0.11		1.0	0.11	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Cadmium	0.0540	J	0.20	0.036	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Chromium	1.35		1.0	0.50	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Lead	<0.23		0.50	0.23	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Selenium	<0.59		1.0	0.59	mg/Kg		05/16/22 08:55	05/16/22 17:37	1
Silver	<0.13		0.50	0.13	mg/Kg		05/16/22 08:55	05/16/22 17:37	1

Lab Sample ID: LCS 500-656834/2-A
Matrix: Solid
Analysis Batch: 657076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	10.0	8.96		mg/Kg		90	80 - 120
Barium	200	194		mg/Kg		97	80 - 120
Cadmium	5.00	4.57		mg/Kg		91	80 - 120
Chromium	20.0	19.5		mg/Kg		97	80 - 120
Lead	10.0	8.77		mg/Kg		88	80 - 120
Selenium	10.0	8.33		mg/Kg		83	80 - 120
Silver	5.00	4.03		mg/Kg		81	80 - 120

Lab Sample ID: 500-216192-1 MS
Matrix: Solid
Analysis Batch: 657076

Client Sample ID: STN1 0.25-2.5
Prep Type: Total/NA
Prep Batch: 656834

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	4.4	F1	12.4	13.1	F1	mg/Kg	☼	70	75 - 125
Barium	100		247	320		mg/Kg	☼	88	75 - 125
Cadmium	<0.046		6.18	4.85		mg/Kg	☼	79	75 - 125
Chromium	37	B F1	24.7	48.3	F1	mg/Kg	☼	46	75 - 125
Lead	28	F1 F2	12.4	31.8	F1	mg/Kg	☼	31	75 - 125
Selenium	<0.75	F1	12.4	8.55	F1	mg/Kg	☼	69	75 - 125
Silver	0.43	J F1	6.18	4.76	F1	mg/Kg	☼	70	75 - 125

Lab Sample ID: 500-216192-1 MSD
Matrix: Solid
Analysis Batch: 657076

Client Sample ID: STN1 0.25-2.5
Prep Type: Total/NA
Prep Batch: 656834

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	4.4	F1	12.7	13.8	F1	mg/Kg	☼	73	75 - 125	5	20
Barium	100		254	345		mg/Kg	☼	96	75 - 125	7	20
Cadmium	<0.046		6.34	4.80		mg/Kg	☼	76	75 - 125	1	20
Chromium	37	B F1	25.4	55.5	F1	mg/Kg	☼	73	75 - 125	14	20
Lead	28	F1 F2	12.7	39.6	F2	mg/Kg	☼	92	75 - 125	22	20
Selenium	<0.75	F1	12.7	7.79	F1	mg/Kg	☼	61	75 - 125	9	20
Silver	0.43	J F1	6.34	4.82	F1	mg/Kg	☼	69	75 - 125	1	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 500-216192-1 DU
Matrix: Solid
Analysis Batch: 657076

Client Sample ID: STN1 0.25-2.5
Prep Type: Total/NA
Prep Batch: 656834

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	4.4	F1	4.08		mg/Kg	☼	8	20
Barium	100		121		mg/Kg	☼	18	20
Cadmium	<0.046		<0.040		mg/Kg	☼	NC	20
Chromium	37	B F1	28.0	F3	mg/Kg	☼	28	20
Lead	28	F1 F2	22.5	F3	mg/Kg	☼	22	20
Selenium	<0.75	F1	<0.65		mg/Kg	☼	NC	20
Silver	0.43	J F1	0.489	J	mg/Kg	☼	13	20

Lab Sample ID: MB 500-656949/1-A
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.34		1.0	0.34	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Barium	<0.11		1.0	0.11	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Cadmium	0.0682	J	0.20	0.036	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Chromium	<0.50		1.0	0.50	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Lead	<0.23		0.50	0.23	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Selenium	<0.59		1.0	0.59	mg/Kg		05/16/22 15:15	05/17/22 10:39	1
Silver	<0.13		0.50	0.13	mg/Kg		05/16/22 15:15	05/17/22 10:39	1

Lab Sample ID: LCS 500-656949/2-A
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	10.0	8.82		mg/Kg		88	80 - 120
Barium	200	192		mg/Kg		96	80 - 120
Cadmium	5.00	4.43		mg/Kg		89	80 - 120
Chromium	20.0	18.4		mg/Kg		92	80 - 120
Lead	10.0	8.54		mg/Kg		85	80 - 120
Selenium	10.0	8.45		mg/Kg		85	80 - 120

Lab Sample ID: LCS 500-656949/2-A ^2
Matrix: Solid
Analysis Batch: 657342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	5.00	4.01		mg/Kg		80	80 - 120

Lab Sample ID: 500-216192-22 MS
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: STN11 10.5-12
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.8	F1	10.1	13.3		mg/Kg	☼	94	75 - 125
Barium	83		201	274		mg/Kg	☼	95	75 - 125
Cadmium	0.11	J B	5.03	4.25		mg/Kg	☼	82	75 - 125
Chromium	18		20.1	35.1		mg/Kg	☼	83	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 500-216192-22 MS
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: STN11 10.5-12
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	6.1		10.1	15.7		mg/Kg	☼	95	75 - 125
Selenium	<0.66	F1	10.1	7.03	F1	mg/Kg	☼	70	75 - 125
Silver	0.38	J F1	5.03	3.97	F1	mg/Kg	☼	71	75 - 125

Lab Sample ID: 500-216192-22 MSD
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: STN11 10.5-12
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.8	F1	10.9	11.8	F1	mg/Kg	☼	74	75 - 125	12	20
Barium	83		218	269		mg/Kg	☼	85	75 - 125	2	20
Cadmium	0.11	J B	5.45	4.65		mg/Kg	☼	83	75 - 125	9	20
Chromium	18		21.8	37.4		mg/Kg	☼	87	75 - 125	6	20
Lead	6.1		10.9	15.6		mg/Kg	☼	87	75 - 125	1	20
Selenium	<0.66	F1	10.9	7.80	F1	mg/Kg	☼	72	75 - 125	10	20
Silver	0.38	J F1	5.45	4.33	F1	mg/Kg	☼	72	75 - 125	8	20

Lab Sample ID: 500-216192-22 DU
Matrix: Solid
Analysis Batch: 657250

Client Sample ID: STN11 10.5-12
Prep Type: Total/NA
Prep Batch: 656949

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	3.8	F1	4.24		mg/Kg	☼	11	20
Barium	83		88.5		mg/Kg	☼	7	20
Cadmium	0.11	J B	0.125	J	mg/Kg	☼	15	20
Chromium	18		19.4		mg/Kg	☼	5	20
Lead	6.1		6.74		mg/Kg	☼	10	20
Selenium	<0.66	F1	<0.62		mg/Kg	☼	NC	20
Silver	0.38	J F1	0.367	J	mg/Kg	☼	3	20

Lab Sample ID: MB 500-657159/1-A
Matrix: Solid
Analysis Batch: 657680

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657159

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.987	J	1.0	0.50	mg/Kg		05/17/22 15:26	05/19/22 14:33	1

Lab Sample ID: LCS 500-657159/2-A
Matrix: Solid
Analysis Batch: 657429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657159

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	20.0	18.4		mg/Kg		92	80 - 120

Lab Sample ID: 500-216192-8 MS
Matrix: Solid
Analysis Batch: 657680

Client Sample ID: STN4 0.5-2.5
Prep Type: Total/NA
Prep Batch: 657159

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	15	B	22.4	32.6		mg/Kg	☼	77	75 - 125

Method: 6010C - Metals (ICP)

Lab Sample ID: 500-216192-8 MSD
Matrix: Solid
Analysis Batch: 657680

Client Sample ID: STN4 0.5-2.5
Prep Type: Total/NA
Prep Batch: 657159

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	15	B	22.5	38.4		mg/Kg	☼	103	75 - 125	16	20

Lab Sample ID: 500-216192-8 DU
Matrix: Solid
Analysis Batch: 657680

Client Sample ID: STN4 0.5-2.5
Prep Type: Total/NA
Prep Batch: 657159

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	15	B	13.9		mg/Kg	☼	9	20

Lab Sample ID: LB 500-656363/1-C
Matrix: Solid
Analysis Batch: 657070

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 656616

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.050	0.010	mg/L		05/13/22 17:04	05/16/22 18:21	1
Barium	<0.050		0.50	0.050	mg/L		05/13/22 17:04	05/16/22 18:21	1
Cadmium	<0.0020		0.0050	0.0020	mg/L		05/13/22 17:04	05/16/22 18:21	1
Chromium	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 18:21	1
Copper	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 18:21	1
Lead	<0.0075		0.050	0.0075	mg/L		05/13/22 17:04	05/16/22 18:21	1
Nickel	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 18:21	1
Selenium	<0.020		0.050	0.020	mg/L		05/13/22 17:04	05/16/22 18:21	1
Silver	<0.010		0.025	0.010	mg/L		05/13/22 17:04	05/16/22 18:21	1
Zinc	<0.020		0.10	0.020	mg/L		05/13/22 17:04	05/16/22 18:21	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-656563/12-A
Matrix: Solid
Analysis Batch: 656704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656563

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/13/22 12:15	05/14/22 13:20	1

Lab Sample ID: LCS 500-656563/14-A
Matrix: Solid
Analysis Batch: 656704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656563

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00197		mg/L		99	80 - 120

Lab Sample ID: LB 500-656363/1-B
Matrix: Solid
Analysis Batch: 656704

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 656563

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		05/13/22 12:15	05/14/22 13:22	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-656864/12-A
Matrix: Solid
Analysis Batch: 657123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0056		0.017	0.0056	mg/Kg		05/16/22 13:40	05/17/22 08:54	1

Lab Sample ID: LCS 500-656864/13-A
Matrix: Solid
Analysis Batch: 657123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.184		mg/Kg		110	80 - 120

Lab Sample ID: 500-216192-9 MS
Matrix: Solid
Analysis Batch: 657123

Client Sample ID: STN4 4-6
Prep Type: Total/NA
Prep Batch: 656864

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.025		0.100	0.128		mg/Kg	☼	102	75 - 125

Lab Sample ID: 500-216192-9 MSD
Matrix: Solid
Analysis Batch: 657123

Client Sample ID: STN4 4-6
Prep Type: Total/NA
Prep Batch: 656864

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.025		0.100	0.131		mg/Kg	☼	105	75 - 125	2	20

Lab Sample ID: 500-216192-9 DU
Matrix: Solid
Analysis Batch: 657123

Client Sample ID: STN4 4-6
Prep Type: Total/NA
Prep Batch: 656864

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.025		0.0223		mg/Kg	☼	13	20

Lab Sample ID: MB 500-657118/12-A
Matrix: Solid
Analysis Batch: 657296

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0056		0.017	0.0056	mg/Kg		05/17/22 15:00	05/18/22 07:04	1

Lab Sample ID: LCS 500-657118/13-A
Matrix: Solid
Analysis Batch: 657296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.184		mg/Kg		110	80 - 120

Lab Sample ID: 500-216192-23 MS
Matrix: Solid
Analysis Batch: 657296

Client Sample ID: STN12 3.5-4.5
Prep Type: Total/NA
Prep Batch: 657118

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.038		0.0985	0.151		mg/Kg	☼	114	75 - 125

Method: 7471B - Mercury (CVAA)

Lab Sample ID: 500-216192-23 MSD
Matrix: Solid
Analysis Batch: 657296

Client Sample ID: STN12 3.5-4.5
Prep Type: Total/NA
Prep Batch: 657118

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.038		0.0995	0.157		mg/Kg	☼	120	75 - 125	4	20

Lab Sample ID: 500-216192-23 DU
Matrix: Solid
Analysis Batch: 657296

Client Sample ID: STN12 3.5-4.5
Prep Type: Total/NA
Prep Batch: 657118

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.038		0.0364		mg/Kg	☼	4	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 500-657120/1-A
Matrix: Solid
Analysis Batch: 657221

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657120

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.12		0.24	0.12	mg/Kg		05/17/22 12:17	05/17/22 18:17	1

Lab Sample ID: HLCS 500-657120/2-A
Matrix: Solid
Analysis Batch: 657221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657120

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	9.60	8.77		mg/Kg		91	90 - 110

Lab Sample ID: LCS 500-657120/3-A
Matrix: Solid
Analysis Batch: 657221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	2.40	2.46		mg/Kg		102	85 - 115

Lab Sample ID: LLCS 500-657120/4-A
Matrix: Solid
Analysis Batch: 657221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657120

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	1.20	1.45		mg/Kg		121	75 - 125

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-656395/1-A
Matrix: Solid
Analysis Batch: 656958

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656395

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<4.7		10	4.7	mg/Kg		05/12/22 17:38	05/16/22 15:28	1

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 500-656395/2-A
Matrix: Solid
Analysis Batch: 656958

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	198	173		mg/Kg		87	80 - 120

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 500-657174/1-A
Matrix: Solid
Analysis Batch: 657362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	<0.41		0.50	0.41	mg/Kg		05/18/22 10:30	05/18/22 14:45	1

Lab Sample ID: LCS 500-657174/2-A
Matrix: Solid
Analysis Batch: 657362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	10.0	9.24		mg/Kg		92	90 - 110

Method: 9095B - Paint Filter

Lab Sample ID: 500-216192-37 DU
Matrix: Solid
Analysis Batch: 656558

Client Sample ID: STN-B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Free Liquid	Pass		Pass		No Unit		NC	

Method: 9251 - Chlorine, Total

Lab Sample ID: MB 680-721655/1-A
Matrix: Solid
Analysis Batch: 721677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721655

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Chlorine	<0.020		0.020	0.020	%		05/19/22 11:58	05/19/22 13:38	1

Lab Sample ID: LCS 680-721655/2-A
Matrix: Solid
Analysis Batch: 721677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Chlorine	0.990	0.707		%		71	70 - 130

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN1 0.25-2.5
Date Collected: 05/05/22 10:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN1 0.25-2.5
Date Collected: 05/05/22 10:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-1
Matrix: Solid
Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/17/22 22:41	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 17:44	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 08:58	MJG	TAL CHI

Client Sample ID: STN1 4.5-6.5
Date Collected: 05/05/22 10:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN1 4.5-6.5
Date Collected: 05/05/22 10:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-2
Matrix: Solid
Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/17/22 23:05	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 17:59	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:00	MJG	TAL CHI

Client Sample ID: STN2 0-2.5
Date Collected: 05/05/22 11:25
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN2 0-2.5

Lab Sample ID: 500-216192-3
Date Collected: 05/05/22 11:25
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			655406	05/05/22 12:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	657061	05/17/22 16:56	W1T	TAL CHI
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		5	626427	05/17/22 23:29	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:03	JJB	TAL CHI
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		5	657250	05/17/22 12:11	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:02	MJG	TAL CHI

Client Sample ID: FD1

Lab Sample ID: 500-216192-4
Date Collected: 05/05/22 11:26
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: FD1

Lab Sample ID: 500-216192-4
Date Collected: 05/05/22 11:26
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			655406	05/05/22 11:26	WRE	TAL CHI
Total/NA	Analysis	8260B		50	657061	05/17/22 17:20	W1T	TAL CHI

Client Sample ID: STN2 4-6

Lab Sample ID: 500-216192-5
Date Collected: 05/05/22 11:30
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN2 4-6

Lab Sample ID: 500-216192-5
Date Collected: 05/05/22 11:30
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/17/22 23:54	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:06	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:04	MJG	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN3 0.25-2.5
Date Collected: 05/05/22 10:15
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN3 0.25-2.5
Date Collected: 05/05/22 10:15
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-6
Matrix: Solid
Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 00:19	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:15	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:06	MJG	TAL CHI

Client Sample ID: STN3 2.5-4
Date Collected: 05/05/22 10:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN3 2.5-4
Date Collected: 05/05/22 10:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-7
Matrix: Solid
Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 00:43	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:19	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:11	MJG	TAL CHI

Client Sample ID: STN4 0.5-2.5
Date Collected: 05/05/22 09:20
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN4 0.5-2.5

Lab Sample ID: 500-216192-8
Date Collected: 05/05/22 09:20
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 01:07	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:22	JJB	TAL CHI
Total/NA	Prep	3050B			657159	05/17/22 15:26	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657680	05/19/22 14:36	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:13	MJG	TAL CHI

Client Sample ID: STN4 4-6

Lab Sample ID: 500-216192-9
Date Collected: 05/05/22 09:25
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN4 4-6

Lab Sample ID: 500-216192-9
Date Collected: 05/05/22 09:25
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 01:31	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:25	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:15	MJG	TAL CHI

Client Sample ID: STN5 2-4

Lab Sample ID: 500-216192-10
Date Collected: 05/05/22 08:50
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN5 2-4

Lab Sample ID: 500-216192-10
Date Collected: 05/05/22 08:50
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		20	626427	05/18/22 01:55	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:28	JJB	TAL CHI
Total/NA	Prep	3050B			657159	05/17/22 15:26	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657680	05/19/22 14:52	JJB	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN5 2-4

Lab Sample ID: 500-216192-10
Date Collected: 05/05/22 08:50
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:23	MJG	TAL CHI

Client Sample ID: STN6 0-2

Lab Sample ID: 500-216192-11
Date Collected: 05/04/22 17:25
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN6 0-2

Lab Sample ID: 500-216192-11
Date Collected: 05/04/22 17:25
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 67.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		10	626547	05/18/22 16:19	JMM	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:32	JJB	TAL CHI
Total/NA	Prep	3050B			657159	05/17/22 15:26	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657680	05/19/22 14:55	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:25	MJG	TAL CHI

Client Sample ID: STN6 8-10

Lab Sample ID: 500-216192-12
Date Collected: 05/04/22 17:30
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN6 8-10

Lab Sample ID: 500-216192-12
Date Collected: 05/04/22 17:30
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 74.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 02:43	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:35	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:27	MJG	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN7 1.5-3
Date Collected: 05/05/22 08:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN7 1.5-3
Date Collected: 05/05/22 08:30
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-13
Matrix: Solid
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626297	05/16/22 15:21	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626427	05/18/22 03:07	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:38	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:29	MJG	TAL CHI

Client Sample ID: STN7 4-6
Date Collected: 05/05/22 08:35
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Client Sample ID: STN7 4-6
Date Collected: 05/05/22 08:35
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-14
Matrix: Solid
Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 18:00	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:41	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:34	MJG	TAL CHI

Client Sample ID: STN8 0-2.5
Date Collected: 05/04/22 16:45
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656610	05/13/22 16:45	LWN	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN8 0-2.5

Lab Sample ID: 500-216192-15
Date Collected: 05/04/22 16:45
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		20	626621	05/18/22 18:25	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:45	JJB	TAL CHI
Total/NA	Prep	3050B			657159	05/17/22 15:26	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657680	05/19/22 14:59	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:36	MJG	TAL CHI

Client Sample ID: STN8 6-8

Lab Sample ID: 500-216192-16
Date Collected: 05/04/22 16:50
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN8 6-8

Lab Sample ID: 500-216192-16
Date Collected: 05/04/22 16:50
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 18:49	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:54	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:38	MJG	TAL CHI

Client Sample ID: STN9 1-2.5

Lab Sample ID: 500-216192-17
Date Collected: 05/04/22 16:15
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN9 1-2.5

Lab Sample ID: 500-216192-17
Date Collected: 05/04/22 16:15
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		50	626621	05/18/22 19:14	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 18:58	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:40	MJG	TAL CHI

Client Sample ID: STN9 4.5-6.5

Lab Sample ID: 500-216192-18
Date Collected: 05/04/22 16:20
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN9 4.5-6.5

Lab Sample ID: 500-216192-18
Date Collected: 05/04/22 16:20
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 19:37	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 19:01	JJB	TAL CHI
Total/NA	Prep	3050B			657159	05/17/22 15:26	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657680	05/19/22 15:02	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:42	MJG	TAL CHI

Client Sample ID: STN10 0-2.25

Lab Sample ID: 500-216192-19
Date Collected: 05/04/22 15:50
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN10 0-2.25

Lab Sample ID: 500-216192-19
Date Collected: 05/04/22 15:50
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		50	626621	05/18/22 20:01	PJQ	TAL BUF
Total/NA	Prep	3550C	DL		626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D	DL	100	626960	05/20/22 15:39	RJS	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 19:04	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:44	MJG	TAL CHI

Client Sample ID: STN10 8-9.5

Lab Sample ID: 500-216192-20
Date Collected: 05/04/22 15:55
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN10 8-9.5

Lab Sample ID: 500-216192-20

Date Collected: 05/04/22 15:55

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 20:25	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 19:07	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:45	MJG	TAL CHI

Client Sample ID: STN11 0-2

Lab Sample ID: 500-216192-21

Date Collected: 05/04/22 15:20

Matrix: Solid

Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN11 0-2

Lab Sample ID: 500-216192-21

Date Collected: 05/04/22 15:20

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		50	626621	05/18/22 20:49	PJQ	TAL BUF
Total/NA	Prep	3050B			656834	05/16/22 08:55	BDE	TAL CHI
Total/NA	Analysis	6010C		1	657076	05/16/22 19:10	JJB	TAL CHI
Total/NA	Prep	7471B			656864	05/16/22 13:40	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657123	05/17/22 09:48	MJG	TAL CHI

Client Sample ID: STN11 10.5-12

Lab Sample ID: 500-216192-22

Date Collected: 05/04/22 15:25

Matrix: Solid

Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN11 10.5-12

Lab Sample ID: 500-216192-22

Date Collected: 05/04/22 15:25

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 21:14	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:04	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:28	MJG	TAL CHI

Client Sample ID: STN12 3.5-4.5
Date Collected: 05/04/22 14:45
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-23
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN12 3.5-4.5
Date Collected: 05/04/22 14:45
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-23
Matrix: Solid
Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		10	626621	05/18/22 21:38	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:20	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:31	MJG	TAL CHI

Client Sample ID: STN12 8-10
Date Collected: 05/04/22 14:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN12 8-10
Date Collected: 05/04/22 14:50
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-24
Matrix: Solid
Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 22:03	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:23	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:39	MJG	TAL CHI

Client Sample ID: STN13 2.5-3.5
Date Collected: 05/04/22 14:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN13 2.5-3.5

Lab Sample ID: 500-216192-25

Date Collected: 05/04/22 14:00

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		50	626621	05/18/22 22:27	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:27	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:41	MJG	TAL CHI

Client Sample ID: STN14 0-2

Lab Sample ID: 500-216192-26

Date Collected: 05/04/22 13:35

Matrix: Solid

Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN14 0-2

Lab Sample ID: 500-216192-26

Date Collected: 05/04/22 13:35

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 22:51	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:39	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:43	MJG	TAL CHI

Client Sample ID: STN15 0-1

Lab Sample ID: 500-216192-27

Date Collected: 05/04/22 13:05

Matrix: Solid

Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN15 0-1

Lab Sample ID: 500-216192-27

Date Collected: 05/04/22 13:05

Matrix: Solid

Date Received: 05/06/22 08:53

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		5	626621	05/18/22 23:15	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:43	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:49	MJG	TAL CHI

Client Sample ID: STN16 0-1.5
Date Collected: 05/04/22 09:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-28
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN16 0-1.5
Date Collected: 05/04/22 09:55
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-28
Matrix: Solid
Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			655406	05/04/22 09:55	WRE	TAL CHI
Total/NA	Analysis	8260B		50	657061	05/17/22 17:44	W1T	TAL CHI
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/18/22 23:39	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:46	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:50	MJG	TAL CHI

Client Sample ID: STN16 3.5-5
Date Collected: 05/04/22 10:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-29
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN16 3.5-5
Date Collected: 05/04/22 10:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-29
Matrix: Solid
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			655406	05/04/22 10:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	657061	05/17/22 18:08	W1T	TAL CHI
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/19/22 00:03	PJQ	TAL BUF
Total/NA	Prep	3550C	DL		626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D	DL	5	626960	05/20/22 16:03	RJS	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:49	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:52	MJG	TAL CHI

Client Sample ID: STN17 0-1.25
Date Collected: 05/04/22 12:45
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-30
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN17 0-1.25
Lab Sample ID: 500-216192-30
Date Collected: 05/04/22 12:45
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		5	626621	05/19/22 00:27	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:52	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:54	MJG	TAL CHI

Client Sample ID: STN18 0-1.5
Lab Sample ID: 500-216192-31
Date Collected: 05/04/22 16:30
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN18 0-1.5
Lab Sample ID: 500-216192-31
Date Collected: 05/04/22 16:30
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/19/22 00:52	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:56	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:56	MJG	TAL CHI

Client Sample ID: STN19 0-1
Lab Sample ID: 500-216192-32
Date Collected: 05/04/22 12:15
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN19 0-1
Lab Sample ID: 500-216192-32
Date Collected: 05/04/22 12:15
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/19/22 01:17	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 14:59	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 07:58	MJG	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN20 0-1
Date Collected: 05/04/22 11:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-33
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN20 0-1
Date Collected: 05/04/22 11:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-33
Matrix: Solid
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626456	05/17/22 15:29	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626621	05/19/22 01:41	PJQ	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 15:02	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 08:00	MJG	TAL CHI

Client Sample ID: STN20 1-3
Date Collected: 05/04/22 11:05
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-34
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	656614	05/13/22 17:10	LWN	TAL CHI

Client Sample ID: STN20 1-3
Date Collected: 05/04/22 11:05
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-34
Matrix: Solid
Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			626461	05/17/22 15:37	SJM	TAL BUF
Total/NA	Analysis	8270D		1	626647	05/18/22 20:50	JMM	TAL BUF
Total/NA	Prep	3050B			656949	05/16/22 15:15	LMB	TAL CHI
Total/NA	Analysis	6010C		1	657250	05/17/22 15:05	JJB	TAL CHI
Total/NA	Prep	7471B			657118	05/17/22 15:00	MJG	TAL CHI
Total/NA	Analysis	7471B		1	657296	05/18/22 08:01	MJG	TAL CHI

Client Sample ID: Trip Blank
Date Collected: 05/04/22 00:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-35
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			655406	05/04/22 00:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	657241	05/18/22 12:57	W1T	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: C Reiss Coal Dock Superior - 193707141

Job ID: 500-216192-1

Client Sample ID: STN-A
Date Collected: 05/05/22 13:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-36
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			656367	05/12/22 14:35	EA	TAL CHI
TCLP	Analysis	8260B		20	656731	05/15/22 17:33	PMF	TAL CHI
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	3510C			657440	05/19/22 07:32	TS	TAL CHI
TCLP	Analysis	8270D		5	657579	05/19/22 20:28	SS	TAL CHI
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	3010A			656616	05/13/22 17:04	LMB	TAL CHI
TCLP	Analysis	6010C		1	657070	05/16/22 19:08	JJB	TAL CHI
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	7470A			656563	05/13/22 12:15	MJG	TAL CHI
TCLP	Analysis	7470A		1	656704	05/14/22 13:50	MJG	TAL CHI
Total/NA	Analysis	9045D		1	656155	05/11/22 20:44	LWN	TAL CHI
Total/NA	Analysis	9095B		1	656558		TMS	TAL CHI
					(Start)	05/12/22 18:26		
					(End)	05/12/22 18:31		
Total/NA	Analysis	Moisture		1	656027	05/11/22 13:32	LWN	TAL CHI

Client Sample ID: STN-A
Date Collected: 05/05/22 13:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-36
Matrix: Solid
Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			655886	05/11/22 07:27	FRG	TAL CHI
Total/NA	Analysis	8082A		5	656715	05/15/22 15:31	SS	TAL CHI
Total/NA	Prep	9010C			657120	05/17/22 12:17	SB	TAL CHI
Total/NA	Analysis	9012B		1	657221	05/17/22 18:29	SB	TAL CHI
Total/NA	Prep	9030B			656395	05/12/22 18:00	TMS	TAL CHI
Total/NA	Analysis	9034		1	656958	05/16/22 15:50	TMS	TAL CHI
Total/NA	Prep	Distill/Phenol			657174	05/18/22 10:30	TMS	TAL CHI
Total/NA	Analysis	9066		1	657362	05/18/22 14:51	SB	TAL CHI
Total/NA	Prep	5050			721655	05/19/22 11:58	SM	TAL SAV
Total/NA	Analysis	9251		1	721677	05/19/22 13:38	SM	TAL SAV

Client Sample ID: STN-B
Date Collected: 05/05/22 14:00
Date Received: 05/06/22 08:53

Lab Sample ID: 500-216192-37
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			656367	05/12/22 14:35	EA	TAL CHI
TCLP	Analysis	8260B		20	656731	05/15/22 17:57	PMF	TAL CHI
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	3510C			657440	05/19/22 07:32	TS	TAL CHI
TCLP	Analysis	8270D		5	657579	05/19/22 20:53	SS	TAL CHI

Lab Chronicle

Client: Stantec Consulting Corp.
Job ID: 500-216192-1
Project/Site: C Reiss Coal Dock Superior - 193707141

Client Sample ID: STN-B
Lab Sample ID: 500-216192-37
Date Collected: 05/05/22 14:00
Matrix: Solid
Date Received: 05/06/22 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	3010A			656616	05/13/22 17:04	LMB	TAL CHI
TCLP	Analysis	6010C		1	657070	05/16/22 19:12	JJB	TAL CHI
TCLP	Leach	1311			656363	05/12/22 13:04	EA	TAL CHI
TCLP	Prep	7470A			656563	05/13/22 12:15	MJG	TAL CHI
TCLP	Analysis	7470A		1	656704	05/14/22 13:52	MJG	TAL CHI
Total/NA	Analysis	9045D		1	656155	05/11/22 20:46	LWN	TAL CHI
Total/NA	Analysis	9095B		1	656558		TMS	TAL CHI
					(Start)	05/12/22 18:26		
					(End)	05/12/22 18:31		
Total/NA	Analysis	Moisture		1	656027	05/11/22 13:32	LWN	TAL CHI

Client Sample ID: STN-B
Lab Sample ID: 500-216192-37
Date Collected: 05/05/22 14:00
Matrix: Solid
Date Received: 05/06/22 08:53
Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			655886	05/11/22 07:27	FRG	TAL CHI
Total/NA	Analysis	8082A		5	656715	05/15/22 15:45	SS	TAL CHI
Total/NA	Prep	9010C			657120	05/17/22 12:17	SB	TAL CHI
Total/NA	Analysis	9012B		1	657221	05/17/22 18:31	SB	TAL CHI
Total/NA	Prep	9030B			656395	05/12/22 18:04	TMS	TAL CHI
Total/NA	Analysis	9034		1	656958	05/16/22 15:53	TMS	TAL CHI
Total/NA	Prep	Distill/Phenol			657174	05/18/22 10:30	TMS	TAL CHI
Total/NA	Analysis	9066		1	657362	05/18/22 14:53	SB	TAL CHI
Total/NA	Prep	5050			721655	05/19/22 11:58	SM	TAL SAV
Total/NA	Analysis	9251		1	721677	05/19/22 13:38	SM	TAL SAV

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Stantec Consulting Corp. Job ID: 500-216192-1
Project/Site: C Reiss Coal Dock Superior - 193707141

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-22

Laboratory: Eurofins Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0686	07-06-22
Connecticut	State	PH-0568	03-31-24
Florida	NELAP	E87672	06-30-22
Georgia	State	10026 (NY)	04-01-23
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	03-31-22 *
Illinois	NELAP	200003	09-30-22
Iowa	State	374	03-01-23
Iowa	State Program	374	03-01-09 *
Kansas	NELAP	E-10187	01-31-23
Kentucky (DW)	State	90029	12-31-22
Kentucky (UST)	State	30	04-01-22 *
Kentucky (WW)	State	KY90029	12-31-22
Louisiana	NELAP	02031	06-30-22
Maine	State	NY00044	12-04-22
Maryland	State	294	03-31-23
Massachusetts	State	M-NY044	06-30-22
Michigan	State	9937	04-01-22 *
Michigan	State Program	9937	04-01-09 *
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-17-22
New Jersey	NELAP	NY455	06-30-22
New York	NELAP	10026	03-31-23
Oregon	NELAP	NY200003	06-12-22
Pennsylvania	NELAP	68-00281	07-31-22
Rhode Island	State	LAO00328	12-30-22
Tennessee	State	02970	04-01-23
Texas	NELAP	T104704412-18-10	07-31-22
USDA	US Federal Programs	P330-18-00039	03-25-24
Virginia	NELAP	460185	09-14-22
Washington	State	C784	02-10-23
Wisconsin	State	998310390	08-31-22

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999819810	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Chicago
2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708 534 5211

Chain of Custody Record

eurofins

Client Information	Sample	Lab PM	Carrier Tracking No(s)	COC No
	W. Coil	Fredrick Sandie		500-100942-43925 1
Client Contact: Whitney Cull	Phone: (262)219-4740	E Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: WI	Page: Page 1 of 1
Company: Stantec Consulting Corp	PWS D	Analysis Requested		Job #: 500-216192
Address: 12075 Corporate Pkwy Suite 200	Due Date Requested			Preservation Codes
City: Mequon	TAT Requested (days): 10 DAY			A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)
State, Zip: WI 53092	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 193707141			
Email: whitney.cull@stantec.com	WO #:			Other:
Project Name: C Reiss Coal Dock Superior 193707141	Project #: 50006565			
Site:	SSOW#:			

500-216192 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B VOC	6010C 7471B, 8270D	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	N		
1 STN1 0.25-2.5	5/5/22	1050	G	Solid	N	N		X	1	
2 STN1 4.5-6.5		1055		Solid				X	1	
3 STN2 0-2.5		1125		Solid			X	X	5	
4 FD1		1126		Solid			X		2	
5 STN2 4-6		1130		Solid				X	1	
6 STN3 0.25-2.5		1015		Solid				X	1	
7 STN3 2.5-4		1020		Solid				X	1	
8 STN4 0.5-2.5		0920		Solid				X	1	
9 STN4 4-6		0925		Solid				X	1	
10 STN5 2-4		0850		Solid				X	1	
11 SN6 0-2	5/4/22	1725		Solid				X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
W Cull	5/5/2022, 1515	STANTEC	[signature]	5/6/22 1025	EETA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes No	Custody Seal No	Cooler Temperature(s) C and Other Remarks	Ver: 06/08/21
		4.1-7.6, 2.2-7.6	

Eurofins Chicago
2417 Bond Street
Un versity Park IL 60484
Phone 708-534 5200 Fax 708 534 5211

Chain of Custody Record

eurofins

Client Information	Sampler	Lab PM	Carrier Tracking No(s	COC No.
		Fredrick Sandie		500-100942-43925 2
Client Contact: Whitney Cull	Phone	E-Mail: Sandra Fredrick@et eurofinsus com	State of Origin: WI	Page: Page 2 of 4
Company: Stantec Consulting Corp	PWSID	Analysis Requested		Job #: 500-216192
Address: 12075 Corporate Pkwy Suite 200	Due Date Requested			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecanydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify); Other:
City: Mequon	TAT Requested (days): 10 DAY			
State, Zip: WI 53092	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 193707141			
Email: whitney.cull@stantec.com	WO #:			
Project Name: C Reiss Coal Dock Superior 193707141	Project #: 50006565			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B VOC	6010C 7471B, 8270D	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	N		
12 STN 6 8-10	5/4/22	1730	G	Solid	N	N		X	1	
13 STN 7 1.5-3	5/5/22	0830		Solid				X	1	
14 STN 7 4-6	↓	0835		Solid				X	1	
15 STN 8 0-2.5	5/4/22	1645		Solid				X	1	
16 STN 8 6-8		1650		Solid				X	1	
17 STN 9 1-2.5		1615		Solid				X	1	
18 STN 9 4.5-6.5		1620		Solid				X	1	
19 STN 10 0-2.25		1550		Solid				X	1	
20 STN 10 8-9.5		1555		Solid				X	1	
21 STN 11 0-2		1520		Solid				X	1	
22 STN 11 10.5-12	↓	1525	↓	Solid	↓	↓		X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
WS Cull	5/5/2022, 1515	STANTEC	Shin Scott	5/6/22 1025	EEPA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver 06.08.0

Eurofins Chicago
2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins

Client Information	Sampler	Lab PM: Fredrick Sandee	Carrier Tracking Nos:	COC No: 500-100942-43925.3
Client Contact: Whitney Cull	Phone	E Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: WI	Page: Page 3 of 4
Company: Stantec Consulting Corp	PWSID	Analysis Requested		Job #: 500-216192
Address: 12075 Corporate Pkwy Suite 200	Due Date Requested			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)
City: Mequon	TAT Requested (days): 10 DAY			
State, Zip: WI 53092	Compliance Project: Δ Yes No			
Phone	PO #: 193707141			Other:
Email: whitney.cull@stantec.com	WO #:			
Project Name: C Reiss Coal Dock Superior 193707141	Project #: 50006565			
Site	SSOW#:			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - VOC	6010C 7471B 8270D	Total Number of containers	Special Instructions/Note
				Preservation Code:		N	N				
23	STN 12 35-45	5/4/22	1445	G	Solid	N	N		X	1	
24	STN 12 8-10		1450		Solid				X	1	
25	STN 13 2.5-3.5		1400		Solid				X	1	
26	STN 14 0-2		1335		Solid				X	1	
27	STN 15 0-1		1305		Solid				X	1	
28	STN 16 0-1.5		0955		Solid			X	X	3	
29	STN 16 3.5-5		1000		Solid			X	X	3	
30	STN 17 0-1.25		1245		Solid				X	1	
31	STN 18 0-1.5		1630		Solid				X	1	
32	STN 19 0-1		1215		Solid				X	1	
33	STN 20 0-1		1100		Solid				X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature] Cull	5/5/22, 1515	STANTEC	[signature]	5/6/22 1025	EETD
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) and Other Remarks

Eurofins Chicago
2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins

Client Information	Sampler	Lab PM: Fredrick Sandie	Carrier Tracking No(s)	COC No: 500 100942-43925 4
Client Contact: Whitney Cull	Phone	E Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: WI	Page: Page 4 of 4
Company: Stantec Consulting Corp	PWSID			Job #: 500-216192
Address: 12075 Corporate Pkwy Suite 200	Due Date Requested			
City: Mequon	TAT Requested (days): 10 DAY			
State, Zip: WI 53092	Compliance Project: Δ Yes Δ No			
Phone	PO #: 193707141			
Email: whitney.cull@stantec.com	WO #:			
Project Name: C Reiss Coal Dock Superior 193707141	Project #: 50006565			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)
Other

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B VOC	6010C 7471B, 8270D Method 8	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	N		
34 STN 20 1-3	5/4/22	1105	G	Solid	N	N		X	1	
35 TRIP BLANK	—	—	—	Solid			X		2	
36 STN-A	5/5/22	1300	C	Solid				X	3	
37 STN-B	5/5/22	1400	C	Solid				X	3	
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

Possible Hazard Identification
☐ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature] Cull	5/5/22, 1515	STANTEC	[signature] Scott	5/6/22 1025	EEPB
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) and Other Remarks

Ver 06/08/2021


ORIGIN ID:RRLA (262) 202-5955
STANTEC
12075 CORPORATE PKWY
MEQUON, WI 53092
UNITED STATES US
SHIP DATE: 26APR22
ACTWGT: 25.00 LB MAN
CAD: 0269688/CAFE3511
TO SAMPLE RECEIPT
EUROFINS
2417 BOND ST.
UNIVERSITY PARK IL 60484
500-216192 Wayb
(262) 202-5955 REF:
INV:
PO: DEPT
RMA
FedEx Express
FedEx.
TRK# 0221 5776 0597 4433
FRI - 06 MAY AA
PRIORITY OVERNIGHT
XN JOTA
60484
IL-US
ORD


ORIGIN ID:RRLA (262) 202-5955
STANTEC
12075 CORPORATE PKWY
MEQUON, WI 53092
UNITED STATES US
SHIP DATE: 26APR22
ACTWGT: 25.00 LB MAN
CAD: 0269688/CAFE3511
TO SAMPLE RECEIPT
EUROFINS
2417 BOND ST.
UNIVERSITY PARK IL 60484
(262) 202-5955 REF
INV:
PO: DEPT
RMA:
FedEx Express
FedEx.
TRK# 0221 5776 0597 4422
FRI - 06 MAY AA
PRIORITY OVERNIGHT
XN JOTA
60484
IL-US
ORD

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-160631.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 4
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Wisconsin; State Program - Wisconsin		Job #: 500-216192-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 5/19/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: C Reiss Coal Dock Superior - 193707141	Project #: 50006565			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D/3550C PAH	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
STN1 0.25-2.5 (500-216192-1)	5/5/22	10:50 Central		Solid			X	1	
STN1 4.5-6.5 (500-216192-2)	5/5/22	10:55 Central		Solid			X	1	
STN2 0-2.5 (500-216192-3)	5/5/22	11:25 Central		Solid			X	1	
STN2 4-6 (500-216192-5)	5/5/22	11:30 Central		Solid			X	1	
STN3 0.25-2.5 (500-216192-6)	5/5/22	10:15 Central		Solid			X	1	
STN3 2.5-4 (500-216192-7)	5/5/22	10:20 Central		Solid			X	1	
STN4 0.5-2.5 (500-216192-8)	5/5/22	09:20 Central		Solid			X	1	
STN4 4-6 (500-216192-9)	5/5/22	09:25 Central		Solid			X	1	
STN5 2-4 (500-216192-10)	5/5/22	08:50 Central		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Chicago.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [signature]	Date/Time: 5/13/22 1600	Company EETA	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 5/14/22 1000	Company TAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.6 #1 ICE

Page 137 of 145
5/23/2022

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-160315 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra Fredrick@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Wisconsin, State Program - Wisconsin		Job #: 500-216192-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 5/19/2022			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: C Reiss Coal Dock Superior - 193707141	Project #: 50006565			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9251_Total_Cl/5050 Chlorine, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
STN-A (500-216192-36)	5/5/22	13 00 Central		Solid			X	1	
STN-B (500-216192-37)	5/5/22	14 00 Central		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Chicago.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
1	Stephanie Hernandez	5/6/22 1630	EEA		5/7 195	
2	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
3	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 1.9-1-3

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-216192-1

Login Number: 216192
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2,1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-216192-1

Login Number: 216192
List Number: 3
Creator: Sabuda, Brendan D

List Source: Eurofins Buffalo
List Creation: 05/16/22 11:08 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-216192-1

Login Number: 216192
List Number: 2
Creator: Watters, David

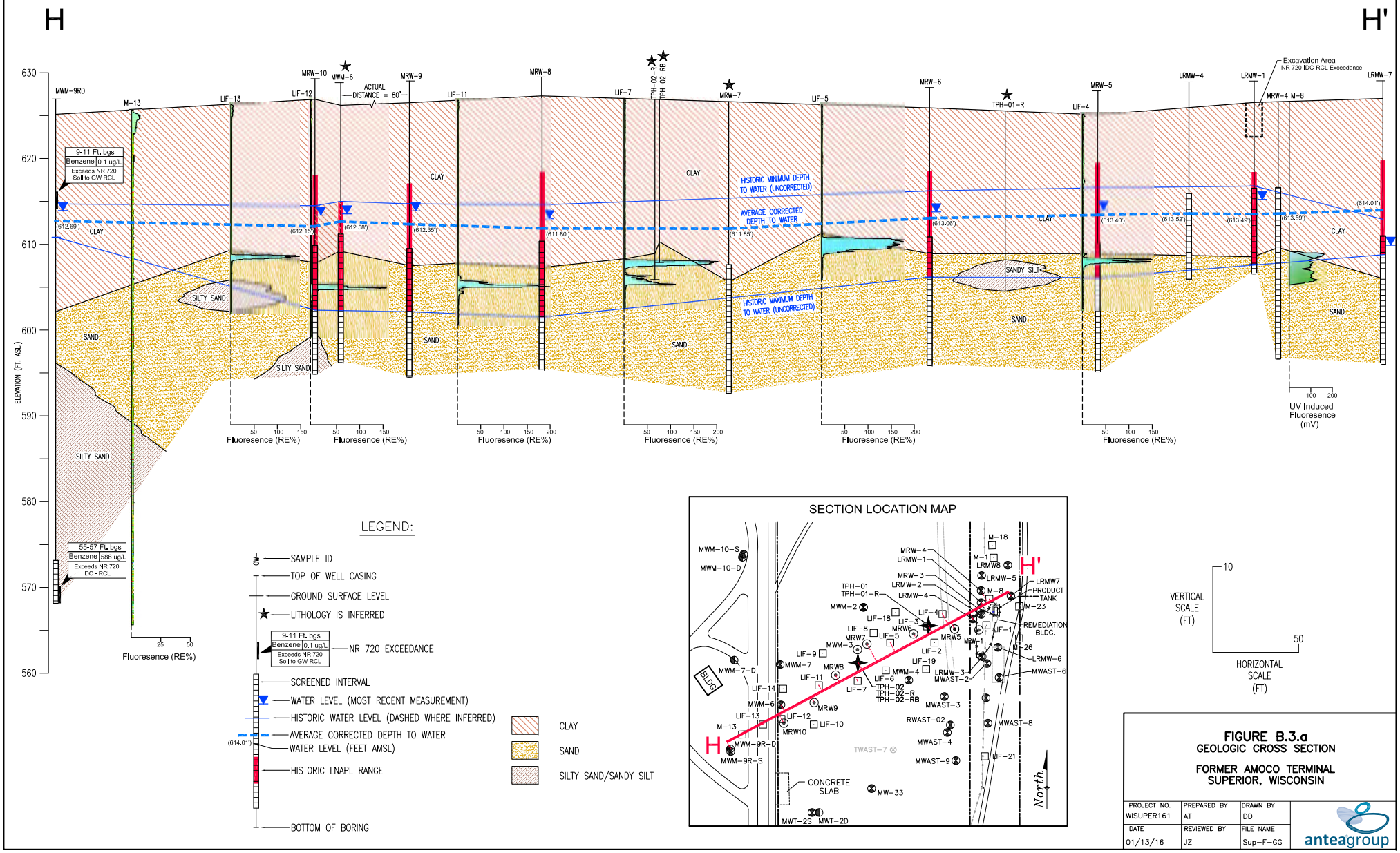
List Source: Eurofins Savannah
List Creation: 05/07/22 01:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX

APPENDIX A

Antea "Figure B.3.a *Geologic Cross Section*" (Antea, 2016)



LEGEND:

- SAMPLE ID
- TOP OF WELL CASING
- GROUND SURFACE LEVEL
- LITHOLOGY IS INFERRED
- NR 720 EXCEEDANCE (9-11 Ft. bgs; Benzene 0.1 ug/L; Exceeds NR 720 Soil to GW RCL)
- SCREENED INTERVAL
- WATER LEVEL (MOST RECENT MEASUREMENT)
- HISTORIC WATER LEVEL (DASHED WHERE INFERRED)
- AVERAGE CORRECTED DEPTH TO WATER
- WATER LEVEL (FEET AMSL) (614.01')
- HISTORIC LNAPL RANGE
- BOTTOM OF BORING

- CLAY
- SAND
- SILTY SAND/SANDY SILT

FIGURE B.3.a
GEOLOGIC CROSS SECTION

FORMER AMOCO TERMINAL
SUPERIOR, WISCONSIN

PROJECT NO.	PREPARED BY	DRAWN BY
WISUPER161	AT	DD
DATE	REVIEWED BY	FILE NAME
01/13/16	JZ	Sup-F-GG

anteagroup