

## Technical Memorandum

To: Lisa Strobridge  
Project Geologist, Environmental  
Cleanup and Brownfields  
Department of Environmental  
Protection  
Southeast Regional Office  
2 East Main Street  
Norristown, PA 19401

From: Kevin L. Long  
Nicholas J. Scala, PG, LSRP  
Alexander J. Strohl, PG  
Terraphase Engineering Inc.

cc: Joe Jeray, PE, PESRM

Date: July 19, 2022 Project No.: P044.001.004

Subject: **Response to Letter of Technical Deficiency**  
**860 Unit Cooling Tower and Hartranft Street - Point Breeze (eFACTS 854903)**  
**3144 West Passyunk Avenue, Philadelphia, PA 19145**

In its letter dated May 20, 2022, the Pennsylvania Department of Environmental Protection (PADEP) identified technical deficiencies in the March 2022 *860 Unit Cooling Tower and Hartranft Street – Final Report*. The Final Report was written by Terraphase Engineering Inc. (Terraphase) on behalf of Philadelphia Energy Solutions Refining and Marketing LLC (PESRM), for a site located near the 860 Unit Cooling Tower and Hartranft Street (the “Site”) within the Former Philadelphia Refinery at 3144 West Passyunk Avenue, Philadelphia, Pennsylvania. PADEP also provided a memorandum dated May 19, 2022 that provided additional detail regarding these deficiencies.

Terraphase prepared this memorandum to discuss and respond to the specific deficiencies identified in PADEP’s May 20, 2022 letter (Attachment A) and the comments provided in PADEP’s May 19, 2022 memo (Attachment B).

We believe that the responses provided below, and the proposed revisions to the Final Report, address the technical deficiencies identified and comments made by PADEP. Please let us know as soon as possible, should you have additional questions or would wish to discuss any the responses or proposed revisions.

### Response to Technical Deficiencies

The following section lists the deficiencies identified in the PADEP’s May 20, 2022 letter and provides a response to each.

1. *“The report did not include all site characterization activities as required by 25 Pa. Code Section 250.204(c), as referenced by 25 Pa. Code Section 250.312(a). The soil texture of the impacted soil was not described.”*

**Response:** The soil encountered in the area of the Site was surficial gravel fill and included brick and ash underlain by brown silts and sands as documented by Ransom in their field notes dated November 29, 2021. Section 3 of the Final Report has been updated to include this description and copies of Ransom’s field notes have been included in Appendix D of the Final Report.

2. *“The demonstration of attainment for soil did not meet the requirements of 25 Pa. Code Section 250.312(d). Soil attainment results exceeded the non-residential Statewide health standard medium specific concentrations (MSC) (specifically the soil to groundwater numeric value) for 1,2-dibromoethane (EDB).”*

**Response:** The PADEP non-residential S-GW MSC for Used Aquifers ( $TDS \leq 2500$ ) for EDB is 5 ug/kg. The PADEP non-residential soil vapor intrusion screening levels (VISLs) for EDB and 1,2-dichloroethane (DCA) are 1.3 ug/kg and 100 ug/kg, respectively. Soil sampling in the area consisted of analyzing soil from six samples for volatile organic compounds (VOCs) via USEPA Method 8260C which includes EDB and 1,2-DCA. Method 8260C has standard method detection limits (MDL) and reporting limits (RLs) that are less than the applicable MSCs and VISLs. Labs, including Eurofins, the PADEP certified laboratory who analyzed the soil samples collected from this area, are able via Method 8260C to meet these target MSCs and screening levels unless there are interferences from other VOCs (i.e., non-target analytes) in the sample.

As explained by Eurofins in their analytical report (Attachment C) for the soil sampling performed at the 860 Unit Hartranft Pipeline release area, each of the samples was diluted *“due to the abundance of non-target analytes”*. Additionally, Method 8260 provides laboratories with the ability to run the analysis via high-level and low-level vials. The samples from this release area were run via the high-level vial. Analysis of the low-level vial was not possible due to the abundance of non-target analytes<sup>1</sup>. Because the lab needed to dilute the samples and was able to analyze only the high-level vial, the MDLs and RLs for EDB and 1,2-DCA were greater than applicable MSCs/VISLs.

The following tables provide a summary of the analytical results including the sample-specific MDLs and RLs.

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<sup>1</sup> Personal communication with Eurofins, 5/27/2022



#### Soil Analytical Results for EDB

SampleID	LabSample ID	Result (ug/kg)	Qual	MDL (ug/kg)	RL (ug/kg)	Dilution
CONF-SOIL-1-2021-10-12	410-58999-1		U	31	390	50
CONF-SOIL-2-2021-10-12	410-58999-2		U	25	310	50
CONF-SOIL-3-2021-10-12	410-58999-3		U	24	300	50
CONF-SOIL-4-2021-10-12	410-58999-4		U	24	300	50
CONF-SOIL-5-2021-10-12	410-58999-5		U	23	280	50
CONF-SOIL-6-2021-10-12	410-58999-6		U	29	360	50

#### Soil Analytical Results for 1,2-DCA

SampleID	LabSample ID	Result (ug/kg)	Qual	MDL (ug/kg)	RL (ug/kg)	Dilution
CONF-SOIL-1-2021-10-12	410-58999-1		U	47	390	50
CONF-SOIL-2-2021-10-12	410-58999-2		U	37	310	50
CONF-SOIL-3-2021-10-12	410-58999-3		U	37	300	50
CONF-SOIL-4-2021-10-12	410-58999-4		U	36	300	50
CONF-SOIL-5-2021-10-12	410-58999-5		U	34	280	50
CONF-SOIL-6-2021-10-12	410-58999-6		U	43	360	50

Because the higher RLs are due to field conditions, resampling and reanalyzing soil for these compounds is unlikely to result in a different outcome.

The interferences from non-target analytes in the 860 Unit Hartranft Pipeline release soil samples represent a technical issue that results in limits of quantitation for EDB and 1,2-DCA that are greater than the relevant MSC/screening levels. The PADEP (2021) *Land Recycling Program Technical Guidance Manual (TGM)* explains that if a “laboratory’s RL value is above a constituent’s corresponding MSC value due to a technical issue, remediators should contact their regional project officer to discuss how to proceed”. No further guidance is provided in the TGM.

USEPA’s (1989) *Risk Assessment Guidance for Superfund, Volume 1 Human Health Evaluation Manual (Part A)* provides specific guidance on how to account for elevated quantitation limits<sup>2</sup> for non-detect results when assessing exposure:

*“If there is reason to believe that the chemical is present in a sample at a concentration below the SQL, use one-half of the SQL as a proxy concentration. [...] Unless site-specific information indicates that a chemical is not likely to be present in a sample, do not substitute the value zero in place of the SQL.” – emphasis added.*

<sup>2</sup> USEPA used the terminology sample specific quantitation limits (SQLs) in their guidance, but they are analogous to what is referred to as sample-specific RLs in this discussion.

*“If the SQLs cannot be reduced by re-analyzing the sample [...], exclude the samples from the quantitative risk assessment if they cause the calculated exposure concentrations [...] to exceed the maximum detected concentration for a particular sample set.”*

With consideration for USEPA’s guidance, in evaluating whether EDB and 1,2-DCA could be present in soil in an area at concentrations below the respective RL, additional lines of evidence should be considered before presuming that a chemical is present in an environmental media. These additional lines of evidence include: (1) information regarding the known release (e.g., what was released and what is its composition); (2) whether other samples of the same environmental media collected from the release area exhibited detectable levels of the chemical; and (3) whether the sample or other samples in the area indicate the presence of other chemicals in the media such that a potentially significant release to the environment may have occurred.

The 860 Unit Hartranft Pipeline release occurred during the removal of overhead pipelines within a pipe rack. The pipeline that caused the release was an out of service line used to remove water from two aboveground storage tanks in the Point Breeze South Yard (i.e., PB 840 and PB 843). Both aboveground storage tanks were formerly used to store crude oil, which is not associated with EDB or 1,2-DCA.

EDB was historically used as a scavenger for lead in anti-knock gasoline mixtures<sup>3</sup>. Up until the ban of leaded gasoline in the 1990s, 1,2-DCA was also used as a lead scavenger<sup>4</sup>. After the ban 1,2-DCA has been used in leaded fuel for aircrafts, racing vehicles, marine engines, and farm equipment. Neither EDB nor 1,2-DCA, would be expected to be present in crude oil or in water that was in contact with crude oil. Also, the soil analytical results did not identify elevated concentrations of any other chemical that would be expected to be present in soil at higher concentrations as a result of this release (see Table 1 of the Final Report). Based upon these two additional lines of evidence, EDB and 1,2-DCA are unlikely to be present in soil impacted by this release and should be considered absent from soil for attainment demonstration and in the Final Report.

Section 3 of the Final Report has been updated to include this review and discussion of the elevated limits for EDB and 1,2-DCA and why, based upon additional lines of evidence, EDB and 1,2-DCA are unlikely to be present in soil impacted by this release and should be considered absent in soil.

3. *“Documentation describing the visual extent of the soil impacts or field screening results supporting the selected locations of attainment samples was not included in the report as required by 25 Pa. Code Section 250.707(b)(1)(iii)(B).”*

**Response:** Section 3 of the Final Report has been updated to include additional detail and documentation regarding the visual extent of soil impacts supporting the selected locations of attainment samples. This documentation includes field notes and photographs provided by NorthStar and Ransom, collectively.

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<sup>3</sup> <https://www.atsdr.cdc.gov/toxprofiles/tp37.pdf>

<sup>4</sup> <https://www.atsdr.cdc.gov/ToxProfiles/tp38.pdf>

4. *“The vapor intrusion assessment was not properly completed as required by 25 Pa. Code Section 250.312(a). Exceedances of non-residential vapor intrusion screening levels for EDB and 1,2-dichloroethane (EDC) were present and vapor intrusion was not evaluated.”*

**Response:** See response to comment #2 regarding the laboratory detection limits for EDB and 1,2-DCA. None of the constituents of concern were identified in soil at concentrations greater than the applicable Statewide Health Standards’ non-residential soil vapor intrusion screening values. As a result, vapor intrusion exposure to constituents of concern from this release is not a current or reasonably expected future exposure scenario.

5. *“Documentation regarding remedial activities was not included as required by 25 Pa. Code Section 250.204(f)(1), as referenced by 25 Pa. Code Section 250.312(c). Documentation for the liquid recovery via vacuum trucks and disposal was not provided. In addition, supporting documentation regarding the extent of the release supporting the basis that remedial efforts were guided by visual observation were not included in the Final Report.”*

**Response:** Section 3 of the Final Report has been updated to provide additional documentation regarding liquid recovery and disposal provided by NorthStar. In addition, Section 3 has also been updated to explain that the basis and extent of soil remedial efforts were guided by visual observations.

## Additional Comments

The following section list additional comments raised in PADEP’s May 19, 2022 *Act 2 Technical Memo Summary*, included as Attachment B, and responses to each.

1. *“The integrity of the roadway needs to be described and documented to demonstrate that the release did not impact soil beneath the road.”*

**Response:** Section 3 of the Final Report has been updated to incorporate information provided by NorthStar regarding the integrity of the roadway. This includes field notes and photographs taken at the time of the release response.

2. *“Post-excavation soil sample depths were not reported.”*

**Response:** The Final Report, including Table 1, has been updated to note the post-excavation soil sampling depths as provided and documented by NorthStar.

3. *“The depth of the excavation was stated as variable and up to one foot in the report. An understanding of where the excavation was deeper and supporting documentation is requested.”*

**Response:** The Final Report has been updated to detail the excavation depths as provided and documented by NorthStar.

4. *“The soil standards for MTBE, EDB, and EDC in the data tables need to be updated.”*

**Response:** The MSCs in Table 1 have been reviewed and updated to match the values published in the November 20, 2021 Pennsylvania Bulletin and now reflected on PADEP’s website<sup>5</sup>.

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<sup>5</sup> <https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Pages/Statewide-Health-Standards.aspx>.



5. *“The presence or absence of LNAPL and location following the release and post-remedial efforts needs to be discussed.”*

**Response:** Separate phase liquid was not identified at the Site following remedial activities (i.e., soil excavation and vacuum truck cleanup). Section 3 of the Final Report has been updated to reflect these observations.

6. *“The report incorrectly references AOI-7 in support of presumed groundwater flow direction, but the site falls within AOI-2.”*

**Response:** Section 2.5 of the Final Report has been updated to reflect the information in the AOI-2 Remedial Investigation Report (Langan 2017).

7. *“The report incorrectly states that light petroleum products are the only constituents of concern.”*

**Response:** The Final Report states that, *“Although light petroleum product constituents are present in the post-excavation soil samples, sampling results also indicate the presence of other constituents.”*

The Ecological Evaluation did not meet the requirements of Step 1: Presence of Light Petroleum Product Constituents, but rather met the requirements of Step 2: Site Size as the reason for no further Ecological Evaluation. Section 4 of the Final Report has been updated to reflect this change.

Attachments (3):

- A PADEP May 20, 2022 *Letter of Technical Deficiency*
- B PADEP May 19, 2022 *Act 2 Technical Memo Summary*
- C Eurofins Analytical Report (410-58999-1)



# Attachment A

PADEP May 20, 2022 *Letter of Technical Deficiency*



May 20, 2022

Ms. Anne Garr  
Philadelphia Energy Solutions Refining and Marketing LLC  
111 S. Acker Drive, Suite 3000  
Chicago, IL 60606

Re: Letter of Technical Deficiency  
Final Report  
eFACTS PF No. 854903  
Philadelphia Energy Solutions  
860 Unit Cooling Tower and Hartranft Street - Point Breeze  
3144 West Passyunk Avenue  
City of Philadelphia  
Philadelphia County

Dear Ms. Garr:

The Department of Environmental Protection (DEP) has received and reviewed the March 2022 document titled “Final Report” (report), received on March 22, 2022 for the property referenced above. The report was prepared by Terraphase Engineering, Inc. and submitted to DEP in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2), and it constitutes a Final Report as defined in Chapter 3.

The procedures and regulations set forth in Act 2 must be followed in order for your site to qualify for the liability protection provided by the Act. Upon initial review, DEP finds the submission is technically deficient and the following items are needed to complete your submission:

1. The report did not include all site characterization activities as required by 25 Pa. Code Section 250.204(c), as referenced by 25 Pa. Code Section 250.312(a). The soil texture of the impacted soil was not described.
2. The demonstration of attainment for soil did not meet the requirements of 25 Pa. Code Section 250.312(d). Soil attainment results exceeded the non-residential Statewide health standard medium specific concentrations (MSC) (specifically the soil to groundwater numeric value) for 1,2-dibromoethane (EDB).
3. Documentation describing the visual extent of the soil impacts or field screening results supporting the selected locations of attainment samples was not included in the report as required by 25 Pa. Code Section 250.707(b)(1)(iii)(B).



4. The vapor intrusion assessment was not properly completed as required by 25 Pa. Code Section 250.312(a). Exceedances of non-residential vapor intrusion screening levels for EDB and 1,2-dichloroethane (EDC) were present and vapor intrusion was not evaluated.
5. Documentation regarding remedial activities was not included as required by 25 Pa. Code Section 250.204(f)(1), as referenced by 25 Pa. Code Section 250.312(c). Documentation for the liquid recovery via vacuum trucks and disposal was not provided. In addition, supporting documentation regarding the extent of the release supporting the basis that remedial efforts were guided by visual observation were not included in the Final Report.

Please address the above summarized technical deficiencies within 60 days. If the deficiencies noted above are corrected and a report resubmitted to DEP within 60 days, it will not be necessary to resubmit report review fees, resend the municipal notice, or republish the public notice. Please include a copy of this correspondence with any resubmission to confirm to DEP staff that an administrative completeness check is not necessary. If the corrected report is resubmitted later than 60 days from the date of this letter, the resubmitted report will need to include the appropriate fees and proofs of municipal and public notices.

We look forward to assisting you in the remediation of this property and encourage you to contact us throughout this process. If you have any questions or need further information regarding this matter, please contact Lisa Strobridge, P.G. by email at [lstrobridg@pa.gov](mailto:lstrobridg@pa.gov) or by telephone at 484.250.5796.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board  
Rachel Carson State Office Building, Second Floor  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800.654.5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717.787.3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717.787.3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

Sincerely,

*Ragesh R Patel*

Ragesh R. Patel  
Regional Manager  
Environmental Cleanup and Brownfields

cc: Philadelphia Department of Health  
Ms. Connolly, HRP  
Mr. Jeray, HRP  
Mr. Long, Terraphase  
Mr. Glass, Esq., Office of Chief Counsel  
Mr. Dula, Office of Environmental Justice  
Mr. Brown, P.G.  
Ms. Strobridge, P.G.  
Ms. Bass


# Attachment B

PADEP May 19, 2022 *Act 2 Technical Memo Summary*



**MEMO**

**TO** Ragesh R. Patel  
Regional Manager  
Environmental Cleanup and Brownfields

**FROM** Lisa Strobridge, P.G.   
Licensed Professional Geologist

**THROUGH** C. David Brown, P.G.  
Professional Geologist Manager

**DATE** May 19, 2022

**RE** ECB – Land Recycling Program  
Act 2 Technical Memo Summary  
Final Report  
eFACTS PF No. 854903  
Philadelphia Energy Solutions  
860 Unit Cooling Tower and Hartranft Street- Point Breeze  
3144 West Passyunk Ave  
City of Philadelphia  
Philadelphia County

**Property Owner and Remediator:**

Hilco Redevelopment Partners  
99 Summer Street, Suite 1110, Boston, MA 02110

**Site Address:**

3144 West Passyunk Ave  
Philadelphia, PA 19145

**Act 2 Standard(s) Sought:**

Non-residential SHS for PA Short Lists for leaded and unleaded gasoline, and Fuel Oils 1,2,4,5, and 6 in soil and groundwater

**Property Size:** ~1300 acres; release area <1 acre

**Project Site History:** Petroleum refining began at the Philadelphia Refinery circa 1870. The facility consisted of two refineries, Point Breeze operated by Atlantic Petroleum Corporation (formerly ARCO) and Girard Point by Chevron (formerly Gulf). Sunoco purchased these two refineries in 1988 and 1994 and consolidated them into a single facility. In 2012 Sunoco sold the refinery to the Carlyle Group and entered a joint venture to operate it as Philadelphia Energy Solutions (PES). Sunoco, Inc. is now a subsidiary of Energy Transfer Partners, L.P., and

Evergreen is a Sunoco affiliate that is responsible for legacy environmental remediation at this site occurring before Sunoco's sale of the site in 2012. In 2020, PES was acquired by Hilco Redevelopment Partners (HRP) who is decommissioning the refinery and developing the property into a life science campus and warehouse facility

The Philadelphia Refinery processed up to 330,000 barrels a day of crude oil. It produced gasoline, diesel, jet fuel, kerosene, home heating oil, and other petroleum liquids. The facility consisted of multiple process units, above-ground storage tanks, pipelines, as well as truck, railcar, and barge transfer equipment.

The property has been subdivided into multiple areas of interest (AOIs) by Evergreen as they have progressed through the Act 2 process to address historical (pre-2012) impacts at the site. In addition, HRP has subdivided the aboveground storage tanks (ASTs) into multiple tank groups to streamline the AST closure reporting processes. DEP has approved the AOI and tank group designations and approaches.

On October 11, 2021, a release occurred during the decommissioning of the pipe rack connected to the 860 Unit Cooling Tower. The pipeline that was the source of the release transferred water from two crude oil ASTs (PB 840 and PB 843, located in Tank Group 4) to the 860 Unit Cooling Tower. The release discharged an oily water mixture to the asphalt roadway (Hartranft Street) over an area of approximately 1,200 square feet and adjacent unpaved surface covering an area of approximately 400 square feet that included areas on both the northern and southern sides of the roadway. The integrity of the roadway was not described or documented, and the roadway was not disturbed as part of this response activity.

The 860 Unit is located within AOI-2 and adjacent to Tank Groups 3 and 4.

The incident timeline provided in the report indicates this incident was discovered between 10:15 and 10:30 am on October 11, 2021 and that crews were immediately deployed to "vacuum the oil and water from the curb areas and remove surface soil". The report indicates that cleanup activities were complete by 12:30 pm the same day, and post-excavation soil samples were collected on October 12, 2021.

A total area of approximately 400 square feet was excavated and encompassed portions on each side of the roadway. The excavation extended to a maximum depth of 1 foot below grade and an approximately 16 tons of soil was transported offsite by Liberty Waste and Recycling for disposal at Pure Soil Technologies in Jackson, New Jersey.

A discussion regarding the liquid removal was not included in the report, nor was disposal documentation for the liquid.

**Site Findings:**

- The report indicates the site lies within “the Atlantic Coastal Plain Physiographic Province of southeastern Pennsylvania, with geology consisting of unconsolidated sediments underlain by schist, gneiss, and other metamorphic bedrock”.
- A description of the soil encountered during excavation activities was not included in the report.

**Soil:**

- The approximate overall area of excavated soil (approximately 400 square feet) was included in the report and reference made that soil was field screened and signs of visual impact were the basis for the extent of excavation.
  - Documentation of field screening or photo documentation were not included in the report.
- On October 12, 2021, six post-excavation grab soil samples were collected, three from each side of the roadway.
  - CONF-SOIL-1 through CONF-SOIL-3 were collected from the south side of the roadway and CONF-SOIL-4 through CONF-SOIL-6 were collected from the north side of the roadway.
    - Soil sample depths at each location was not reported.
  - These soil samples were submitted to Eurofins for Short List leaded and unleaded gasoline compounds, PCBs, and oil and grease, as well as TCLP analysis for various volatile, semi-volatile, organochlorine pesticides, herbicides, metals, and general chemistry.
  - Report results were compared to the non-residential, used aquifer direct contact and soil to groundwater Statewide health standard MSCs for the Short List leaded and unleaded gasoline compounds
    - The laboratory detection limits were above the soil to groundwater standard for 1,2-dibromoethane (EDB) in all samples.
    - All remaining leaded and unleaded gasoline results and detection limits were below direct contact and soil to groundwater standards.
- On November 29, 2021, six additional soil samples were collected from the same locations as the previous samples for analysis of the semi-volatile compounds on the Short Lists for Fuel Oils 1,2,4,5 and 6.
  - It is not clear how the sample locations and depths were verified.
  - All semi-volatile compounds that were analyzed had detection limits below direct contact and soil to groundwater standards.
- Errors for the MTBE, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, in the soil summary table were noted and should be updated in subsequent reporting.

**Groundwater:**

- Groundwater was not encountered during characterization activities.

- Sample detections and detection limit exceedances of the soil to groundwater standards were present for EDB but the soil-to-groundwater pathway was not addressed, and groundwater was not characterized or evaluated.
- The report incorrectly references AOI-7 in support of presumed groundwater flow direction, but the site falls within AOI-2.

**NAPL:**

- The presence or absence of non-aqueous phase liquids (NAPL) is not referenced in the report.

**Surface Water:**

- The closest surface water is the Schuylkill River located approximately 900 ft west of the release location.
- Surface water was not reported to have been impacted by this release.

**Vapor Intrusion:**

- Soil samples results were compared to non-residential soil vapor intrusion screening values.
  - The report incorrectly indicates results were below screening levels for all compounds.
  - Soil detection limits for EDB and 1,2-dichloroethane (EDC) were above the vapor intrusion screening levels and are considered exceedances.
  - The soil vapor intrusion pathway needs further evaluation based on the EDB and EDC detection limit exceedances.

**Ecological Evaluation:**

- The soil area impacted by the 860 Unit release encompasses less than 1 acre and screens out of the ecological assessment.
- The report also incorrectly states that light petroleum products are the only constituents of concern.

**Exposure Pathway Evaluation:**

- The soil to groundwater exposure pathway is a potential contaminant migration route, and vapor intrusion is a potentially complete exposure pathway.

**Site Cleanup History:**

**NIR Received Date:** 3/4/2022

**Discussion of Cleanup Involved and Demonstration of Attainment:**

- Three post-excavation soil samples (for a total of 6 samples) were collected from each side of the roadway to demonstrate attainment of a surface soil release that was less than 50 cubic yards.

- The attainment sampling conducted did not adequately attain the Statewide health standard given:
  - Documentation was not included to that defined the irregular surface of the soil attainment area as determined during characterization efforts.
  - The depths of the soil samples were not reported.
  - The laboratory detection limits were above the soil to groundwater standard for EDB in all samples.
  - Soil detection limits for EDB and EDC were above the vapor intrusion screening values and are considered exceedances.
- No institutional or engineering controls were proposed for the site.

**DEP Final Action Approval/Disapproval Letter:** The 860 Unit Cooling Tower and Hartranft Street- Point Breeze Final Report is recommended for technical deficiency based on the following:

1. The report did not include all site characterization activities as required by 25 Pa. Code Section 250.204(c), as referenced by 25 Pa. Code Section 250.312(a). The soil texture of the impacted soil was not described.
2. The demonstration of attainment for soil did not meet the requirements of 25 Pa. Code Section 250.312(d). Soil attainment results exceeded the non-residential Statewide health standard medium specific concentrations (MSC) (specifically the soil to groundwater numeric value) for EDB.
3. Documentation supporting where the attainment criteria was applied based on concentrations detected during characterization which exceeded the selected standard was not included in the report, as required by 25 Pa. Code Section 250.703(b). Photo documentation showing the visual extent of the soil impacts or field screening results relative to the attainment sampling locations was not included in the report.
4. The vapor intrusion assessment was not properly completed as required by 25 Pa. Code Section 250.312(a). Exceedances of non-residential vapor intrusion screening levels for EDB and EDC were present and vapor intrusion was not evaluated.
5. Documentation regarding remedial activities was not included as required by 25 Pa. Code Section 250.204(f)(1), as referenced by 25 Pa. Code Section 250.312(c). Documentation for the liquid recovery via vacuum trucks and disposal was not provided. In addition, supporting documentation regarding the extent of the release supporting the basis that remedial efforts were guided by visual observation were not included in the Final Report.

In addition to the above deficiencies, DEP is requesting the following items be re-evaluated to provide more clarity in future reporting:



- The integrity of the roadway needs to be described and documented to demonstrate that the release did not impact soil beneath the road.
- Post-excavation soil sample depths were not reported.
- The depth of the excavation was stated as variable and up to one foot in the report. An understanding of where the excavation was deeper and supporting documentation is requested.
- The soil standards for MTBE, EDB, and EDC in the data tables need to be updated.
- The presence or absence of LNAPL and location following the release and post-remedial efforts needs to be discussed.
- The report incorrectly references AOI-7 in support of presumed groundwater flow direction, but the site falls within AOI-2.
- The report incorrectly states that light petroleum products are the only constituents of concern.

The technical deficiencies were discussed with representatives from HRP and Terraphase during a video conference on April 18, 2022. It was also communicated during the meeting that this technical memo would be provided along with the decision letter.

**DEP Contact:** Lisa Strobridge, P.G.

**Phone:** 484-250-5796

**Site Contact:** Anne Garr, Hilco

**Phone:** 312-283-4469

**Site Consultant:** Kevin Long, Terraphase

**Phone:** 609-236-8171 x 93

# Attachment C

Eurofins Analytical Report (410-58999-1)



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-58999-1  
Client Project/Site: NorthStar Sampling  
Revision: 1

For:  
NorthStar Contracting Group, Inc.  
2250 East Adams Avenue  
Philadelphia, Pennsylvania 19124

Attn: Robert Armstrong



Authorized for release by:  
11/17/2021 5:41:08 PM

Amek Carter, Project Manager  
(717)556-7252  
[Loran.Carter@eurofinset.com](mailto:Loran.Carter@eurofinset.com)

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*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Amek Carter".

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Amek Carter  
Project Manager  
11/17/2021 5:41:08 PM



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# Definitions/Glossary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Qualifiers

### GC/MS VOA

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.

### GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
B	Analyte was found in the blank.
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
!	Laboratory is not accredited for this parameter.
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Analyte was found in the blank.
F3	Duplicate RPD exceeds the control limit
FH	MS and/or MSD recovery above control limits.
FL	MS and/or MSD recovery below control limits.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

# Definitions/Glossary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

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# Case Narrative

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Job ID: 410-58999-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-58999-1

#### Revision

The report being provided is a revision of the original report sent on 11/4/2021. The report (revision 1) is being revised due to: Add additional Volatiles and Total Lead.

#### Receipt

The samples were received on 10/13/2021 6:10 PM. 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 1.3°C and 2.3°C

#### GC/MS VOA

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9). 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/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Herbicides

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-183531 recovered outside control limit (+/-20%D) for DCB Decachlorobiphenyl. This surrogate is used for control purposes and the CCV and samples associated with this CCV have surrogate %R well within acceptance criteria; therefore, the data have been reported. Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3) and Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4)

Method 8082A: The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-183928 recovered outside control limit (+/-20%D) for DCB Decachlorobiphenyl. This surrogate is used for control purposes and the CCV and samples associated with this CCV have surrogate %R well within acceptance criteria; therefore, the data have been reported. The associated samples are: Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9).

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-184470 recovered outside acceptance criteria, high biased, for %D for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. Since the associated sample was non-detect for this analyte, the data have been reported. Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Pesticides

Method 8081B: The following samples were diluted due to the nature of the sample matrix: Hartranft-10TH-CONF-SOIL-1-2021-10-12



# Case Narrative

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Job ID: 410-58999-1 (Continued)

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti)

(410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9). Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### Metals

Method 6010C: The TCLP leachate blank for batch 410-183271 contained Barium, Nickel and Lead above the method detection limit (MDL) but below the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Hazard Limit. The associated sample(s) were also below the TCLP Regulatory Hazard Limit for this analyte; therefore, re-extraction was not performed. Associated Sample(s): Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	36	J	390	31	ug/Kg	50	✳	8260C	Total/NA
Xylenes, Total	250	J	780	110	ug/Kg	50	✳	8260C	Total/NA
1,2,4-Trimethylbenzene	890		390	39	ug/Kg	50	✳	8260C	Total/NA
Naphthalene	370	J	390	160	ug/Kg	50	✳	8260C	Total/NA
Isopropylbenzene	490		390	31	ug/Kg	50	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	370	J	390	39	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	21	J	22	8.3	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	32		22	8.3	ug/Kg	1	✳	8082A	Total/NA
Lead	45		1.4	0.58	mg/Kg	1	✳	6010C	Total/NA
Barium	0.74	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	3.0		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.022	J B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	87		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	33		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3600	FH	760	250	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.5		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	45	J !	75	25	mg/L	1		410.4	ASTM Leach

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	63	J	310	31	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	9.1	J	19	7.1	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	10	J	19	7.1	ug/Kg	1	✳	8082A	Total/NA
Lead	19		1.5	0.62	mg/Kg	1	✳	6010C	Total/NA
Barium	0.28	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	0.069	J	0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	89		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.2		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	1600		670	220	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	9.3		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	130	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	130	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	39	J !	75	25	mg/L	1		410.4	ASTM Leach

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	50	J	300	30	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	13	J p	19	7.2	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	47		19	7.2	ug/Kg	1	✳	8082A	Total/NA
Lead	21		1.6	0.64	mg/Kg	1	✳	6010C	Total/NA
Barium	0.43	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	0.86		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	14		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	97		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	2900		670	220	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	9.5		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.1	J ! B	5.2	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	56	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	56	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	63	J !	75	25	mg/L	1		410.4	ASTM Leach

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	63	J	300	24	ug/Kg	50	✳	8260C	Total/NA
Xylenes, Total	620		600	83	ug/Kg	50	✳	8260C	Total/NA
1,2,4-Trimethylbenzene	6000		300	30	ug/Kg	50	✳	8260C	Total/NA
Naphthalene	2900		300	120	ug/Kg	50	✳	8260C	Total/NA
Isopropylbenzene	150	J	300	24	ug/Kg	50	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	1700		300	30	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	8.6	J	18	6.9	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	7.9	J	18	6.9	ug/Kg	1	✳	8082A	Total/NA
Lead	21		1.2	0.49	mg/Kg	1	✳	6010C	Total/NA
Barium	0.37	B	0.050	0.010	mg/L	1		6010C	TCLP
Chromium	0.018	J	0.15	0.016	mg/L	1		6010C	TCLP
Lead	0.35	B	0.15	0.071	mg/L	1		6010C	TCLP
Zinc	2.3		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.057	J B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	89		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.3		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	6500		650	220	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	8.0		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

## Lab Sample ID: 410-58999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	76	J	280	28	ug/Kg	50	✳	8260C	Total/NA
PCB-1260 (2C)	9.2	J	18	6.8	ug/Kg	1	✳	8082A	Total/NA
Lead	20		1.4	0.54	mg/Kg	1	✳	6010C	Total/NA
Barium	0.27	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	1.9		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	93		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.9		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	950		630	210	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	8.7		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.1	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	25	J !	75	25	mg/L	1		410.4	ASTM Leach

## Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

## Lab Sample ID: 410-58999-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	230	J	360	36	ug/Kg	50	✳	8260C	Total/NA
Naphthalene	650		360	140	ug/Kg	50	✳	8260C	Total/NA
Isopropylbenzene	39	J	360	29	ug/Kg	50	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	75	J	360	36	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	23		21	7.8	ug/Kg	1	✳	8082A	Total/NA
Lead	32		1.8	0.72	mg/Kg	1	✳	6010C	Total/NA
Barium	0.40	B	0.050	0.010	mg/L	1		6010C	TCLP
Lead	0.15	B	0.15	0.071	mg/L	1		6010C	TCLP
Zinc	1.5		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	87		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	12		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3300		710	240	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.6		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.0	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	120	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	120	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	68	J !	75	25	mg/L	1		410.4	ASTM Leach

## Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

## Lab Sample ID: 410-58999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	57	J	360	28	ug/Kg	50	✳	8260C	Total/NA
Xylenes, Total	430	J	710	100	ug/Kg	50	✳	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**  
**(Continued)**

**Lab Sample ID: 410-58999-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2100		360	36	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	570		360	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	770		360	28	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	770		360	36	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	11	J	21	7.8	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (1C)	13	J	21	7.8	ug/Kg	1	☼	8082A	Total/NA
Lead	28		1.6	0.64	mg/Kg	1	☼	6010C	Total/NA
Barium	0.54	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	7.3		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.11	B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	80		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	8.7		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	5000		710	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.3		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	37	J!	75	25	mg/L	1		410.4	ASTM Leach

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	55	J	350	42	ug/Kg	50	☼	8260C	Total/NA
Ethylbenzene	160	J	350	28	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	1300		700	99	ug/Kg	50	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	3300		350	35	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	790		350	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	1400		350	28	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	1200		350	35	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	11	J	20	7.7	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	16	J	20	7.7	ug/Kg	1	☼	8082A	Total/NA
Lead	25		1.6	0.66	mg/Kg	1	☼	6010C	Total/NA
Barium	0.52	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	3.5		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.044	J B	0.10	0.021	mg/L	1		6010C	TCLP
Mercury	0.00016	J	0.00020	0.000079	mg/L	1		7470A	TCLP
Total Solids	81		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	8.8		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	6100		720	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	6.9		0.01	0.01	S.U.	1		9045D	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**  
**(Continued)**

**Lab Sample ID: 410-58999-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	92	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	92	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	68	J !	75	25	mg/L	1		410.4	ASTM Leach

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	36	J	350	28	ug/Kg	50	✳	8260C	Total/NA
Xylenes, Total	330	J	710	99	ug/Kg	50	✳	8260C	Total/NA
1,2,4-Trimethylbenzene	1600		350	35	ug/Kg	50	✳	8260C	Total/NA
Naphthalene	410		350	140	ug/Kg	50	✳	8260C	Total/NA
Isopropylbenzene	500		350	28	ug/Kg	50	✳	8260C	Total/NA
1,3,5-Trimethylbenzene	610		350	35	ug/Kg	50	✳	8260C	Total/NA
PCB-1254 (2C)	12	J	20	7.7	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	22		20	7.7	ug/Kg	1	✳	8082A	Total/NA
Lead	33		1.7	0.67	mg/Kg	1	✳	6010C	Total/NA
Barium	0.44	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	2.6		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.11	B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	81		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	6.3		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3500		720	240	mg/Kg	1	✳	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.6		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	1.9	J ! B	5.4	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	73	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	73	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	35	J !	75	25	mg/L	1		410.4	ASTM Leach
Ammonia as N	0.061	J !	0.10	0.050	mg/L	1		EPA 350.1	ASTM Leach

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

**Date Collected: 10/12/21 10:00**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 03:08	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 03:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		10/20/21 03:08	20
4-Bromofluorobenzene (Surr)	95		80 - 120		10/20/21 03:08	20
Dibromofluoromethane (Surr)	102		80 - 120		10/20/21 03:08	20
Toluene-d8 (Surr)	104		80 - 120		10/20/21 03:08	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 14:53	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 14:53	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		10 - 150	10/19/21 17:40	10/20/21 14:53	1
2-Fluorobiphenyl (Surr)	71		35 - 100	10/19/21 17:40	10/20/21 14:53	1
2-Fluorophenol (Surr)	22		10 - 78	10/19/21 17:40	10/20/21 14:53	1
Nitrobenzene-d5 (Surr)	76		22 - 117	10/19/21 17:40	10/20/21 14:53	1
p-Terphenyl-d14 (Surr)	76		31 - 119	10/19/21 17:40	10/20/21 14:53	1
Phenol-d5 (Surr)	19		10 - 67	10/19/21 17:40	10/20/21 14:53	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:30	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:30	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:30	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:30	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:30	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:30	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:30	10

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

**Date Collected: 10/12/21 10:00**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	88		21 - 130	10/19/21 17:27	10/20/21 09:30	10
DCB Decachlorobiphenyl (Surr) (2C)	91		21 - 130	10/19/21 17:27	10/20/21 09:30	10
Tetrachloro-m-xylene (Surr) (1C)	75		39 - 139	10/19/21 17:27	10/20/21 09:30	10
Tetrachloro-m-xylene (Surr) (2C)	68		39 - 139	10/19/21 17:27	10/20/21 09:30	10

### Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/21/21 23:25	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/21/21 23:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	96		26 - 136	10/20/21 00:20	10/21/21 23:25	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	80		26 - 136	10/20/21 00:20	10/21/21 23:25	1

### Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 14:59	1
Barium	0.74	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:59	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:59	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 14:59	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 14:59	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 14:59	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 14:59	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 14:59	1
Zinc	3.0		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 14:59	1
Nickel	0.022	J B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 14:59	1

### Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:35	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	87		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	33		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	87	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	57	19	mg/Kg		10/15/21 07:55	10/15/21 15:00	1
Sulfide, Reactive	ND	!	150	51	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	22.8	!	1.0	1.0	%			10/14/21 12:07	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

Date Collected: 10/12/21 10:00

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	100	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	100	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	45	J !	75	25	mg/L			10/19/21 12:47	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 10:55	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

Date Collected: 10/12/21 10:00

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 77.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		390	39	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Toluene	ND		390	47	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Ethylbenzene	36	J	390	31	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Xylenes, Total	250	J	780	110	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
1,2,4-Trimethylbenzene	890		390	39	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Naphthalene	370	J	390	160	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Isopropylbenzene	490		390	31	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
1,3,5-Trimethylbenzene	370	J	390	39	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
1,2-Dibromoethane	ND		390	31	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
Methyl tertiary butyl ether	ND		390	39	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50
1,2-Dichloroethane	ND		390	47	ug/Kg	⊛	10/14/21 11:18	10/18/21 14:27	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		54 - 135	10/14/21 11:18	10/18/21 14:27	50
4-Bromofluorobenzene (Surr)	105		50 - 131	10/14/21 11:18	10/18/21 14:27	50
Dibromofluoromethane (Surr)	94		50 - 141	10/14/21 11:18	10/18/21 14:27	50
Toluene-d8 (Surr)	105		52 - 141	10/14/21 11:18	10/18/21 14:27	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		22	6.8	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1221 (2C)	ND		22	6.8	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1232 (2C)	ND		22	6.8	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1242 (2C)	ND		22	6.8	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1248 (2C)	ND		22	6.8	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1254 (2C)	21	J	22	8.3	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1
PCB-1260 (2C)	32		22	8.3	ug/Kg	⊛	10/18/21 18:09	10/19/21 08:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	99	^c	45 - 143	10/18/21 18:09	10/19/21 08:52	1
DCB Decachlorobiphenyl (Surr) (2C)	91		45 - 143	10/18/21 18:09	10/19/21 08:52	1
Tetrachloro-m-xylene (1C)	61		53 - 140	10/18/21 18:09	10/19/21 08:52	1
Tetrachloro-m-xylene (2C)	58		53 - 140	10/18/21 18:09	10/19/21 08:52	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	45		1.4	0.58	mg/Kg	⊛	11/09/21 19:12	11/16/21 12:26	1

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

Date Collected: 10/12/21 10:00

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 77.2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	3600	FH	760	250	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 03:54	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 03:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		10/20/21 03:54	20
4-Bromofluorobenzene (Surr)	94		80 - 120		10/20/21 03:54	20
Dibromofluoromethane (Surr)	102		80 - 120		10/20/21 03:54	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 03:54	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:21	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:21	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		10 - 150	10/19/21 17:40	10/20/21 15:21	1
2-Fluorobiphenyl (Surr)	69		35 - 100	10/19/21 17:40	10/20/21 15:21	1
2-Fluorophenol (Surr)	43		10 - 78	10/19/21 17:40	10/20/21 15:21	1
Nitrobenzene-d5 (Surr)	77		22 - 117	10/19/21 17:40	10/20/21 15:21	1
p-Terphenyl-d14 (Surr)	89		31 - 119	10/19/21 17:40	10/20/21 15:21	1
Phenol-d5 (Surr)	34		10 - 67	10/19/21 17:40	10/20/21 15:21	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:41	10

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:41	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:41	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:41	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:41	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:41	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:41	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	78		21 - 130	10/19/21 17:27	10/20/21 09:41	10
DCB Decachlorobiphenyl (Surr) (2C)	83		21 - 130	10/19/21 17:27	10/20/21 09:41	10
Tetrachloro-m-xylene (Surr) (1C)	69		39 - 139	10/19/21 17:27	10/20/21 09:41	10
Tetrachloro-m-xylene (Surr) (2C)	61		39 - 139	10/19/21 17:27	10/20/21 09:41	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 00:00	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 00:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	99		26 - 136	10/20/21 00:20	10/22/21 00:00	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	87		26 - 136	10/20/21 00:20	10/22/21 00:00	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:08	1
Barium	0.28	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:08	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:08	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:08	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:08	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:08	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:08	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:08	1
Zinc	0.069	J	0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:08	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:08	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:37	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	89		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	2.2		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	89	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:32	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND	! FL	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	10.8	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.3		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.2	1.5	mg/L			10/19/21 20:36	1
Total Solids	130	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	130	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	39	J !	75	25	mg/L			10/19/21 12:49	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:01	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 89.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		310	31	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Toluene	ND		310	37	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Ethylbenzene	ND		310	25	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Xylenes, Total	ND		610	86	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
1,2,4-Trimethylbenzene	63	J	310	31	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Naphthalene	ND		310	120	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Isopropylbenzene	ND		310	25	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
1,3,5-Trimethylbenzene	ND		310	31	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
1,2-Dibromoethane	ND		310	25	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
Methyl tertiary butyl ether	ND		310	31	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50
1,2-Dichloroethane	ND		310	37	ug/Kg	✱	10/14/21 11:18	10/18/21 14:48	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		54 - 135	10/14/21 11:18	10/18/21 14:48	50
4-Bromofluorobenzene (Surr)	101		50 - 131	10/14/21 11:18	10/18/21 14:48	50
Dibromofluoromethane (Surr)	84		50 - 141	10/14/21 11:18	10/18/21 14:48	50
Toluene-d8 (Surr)	103		52 - 141	10/14/21 11:18	10/18/21 14:48	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		19	5.9	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1221 (2C)	ND		19	5.9	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1232 (2C)	ND		19	5.9	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1242 (2C)	ND		19	5.9	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1248 (2C)	ND		19	5.9	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1254 (2C)	9.1	J	19	7.1	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1
PCB-1260 (2C)	10	J	19	7.1	ug/Kg	✱	10/15/21 09:45	10/15/21 19:17	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 89.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	79	^c	45 - 143	10/15/21 09:45	10/15/21 19:17	1
DCB Decachlorobiphenyl (Surr) (2C)	68		45 - 143	10/15/21 09:45	10/15/21 19:17	1
Tetrachloro-m-xylene (1C)	65		53 - 140	10/15/21 09:45	10/15/21 19:17	1
Tetrachloro-m-xylene (2C)	60		53 - 140	10/15/21 09:45	10/15/21 19:17	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19		1.5	0.62	mg/Kg	☆	11/09/21 19:12	11/16/21 12:34	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1600		670	220	mg/Kg	☆	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

Date Collected: 10/12/21 10:07

Matrix: Solid

Date Received: 10/13/21 18:10

### Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 04:17	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 04:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		10/20/21 04:17	20
4-Bromofluorobenzene (Surr)	95		80 - 120		10/20/21 04:17	20
Dibromofluoromethane (Surr)	103		80 - 120		10/20/21 04:17	20
Toluene-d8 (Surr)	102		80 - 120		10/20/21 04:17	20

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:50	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:50	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 15:50	1

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

**Date Collected: 10/12/21 10:07**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	56		10 - 150	10/19/21 17:40	10/20/21 15:50	1
2-Fluorobiphenyl (Surr)	71		35 - 100	10/19/21 17:40	10/20/21 15:50	1
2-Fluorophenol (Surr)	11		10 - 78	10/19/21 17:40	10/20/21 15:50	1
Nitrobenzene-d5 (Surr)	76		22 - 117	10/19/21 17:40	10/20/21 15:50	1
p-Terphenyl-d14 (Surr)	89		31 - 119	10/19/21 17:40	10/20/21 15:50	1
Phenol-d5 (Surr)	11		10 - 67	10/19/21 17:40	10/20/21 15:50	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:53	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:53	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:53	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:53	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:53	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:53	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:53	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	90		21 - 130	10/19/21 17:27	10/20/21 09:53	10
DCB Decachlorobiphenyl (Surr) (2C)	92		21 - 130	10/19/21 17:27	10/20/21 09:53	10
Tetrachloro-m-xylene (Surr) (1C)	64		39 - 139	10/19/21 17:27	10/20/21 09:53	10
Tetrachloro-m-xylene (Surr) (2C)	58		39 - 139	10/19/21 17:27	10/20/21 09:53	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 00:36	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	98		26 - 136	10/20/21 00:20	10/22/21 00:36	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	86		26 - 136	10/20/21 00:20	10/22/21 00:36	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:11	1
Barium	0.43	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:11	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:11	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:11	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:11	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:11	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:11	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:11	1
Zinc	0.86		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:11	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:11	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:39	1



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

Date Collected: 10/12/21 10:07

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	14		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	97		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	14	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:39	1
Sulfide, Reactive	ND	!	160	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	11.3	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.5		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.1	J ! B	5.2	1.5	mg/L			10/19/21 20:36	1
Total Solids	56	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	56	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	63	J !	75	25	mg/L			10/19/21 12:51	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:03	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

Date Collected: 10/12/21 10:07

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 88.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		300	30	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Toluene	ND		300	37	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Ethylbenzene	ND		300	24	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Xylenes, Total	ND		610	85	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
1,2,4-Trimethylbenzene	50	J	300	30	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Naphthalene	ND		300	120	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Isopropylbenzene	ND		300	24	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
1,3,5-Trimethylbenzene	ND		300	30	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
1,2-Dibromoethane	ND		300	24	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Methyl tertiary butyl ether	ND		300	30	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
1,2-Dichloroethane	ND		300	37	ug/Kg	✳	10/14/21 11:18	10/18/21 15:08	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		54 - 135				10/14/21 11:18	10/18/21 15:08	50
4-Bromofluorobenzene (Surr)	99		50 - 131				10/14/21 11:18	10/18/21 15:08	50
Dibromofluoromethane (Surr)	89		50 - 141				10/14/21 11:18	10/18/21 15:08	50
Toluene-d8 (Surr)	102		52 - 141				10/14/21 11:18	10/18/21 15:08	50

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

Date Collected: 10/12/21 10:07

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 88.7

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1221 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1232 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1242 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1248 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
<b>PCB-1254 (2C)</b>	<b>13</b>	<b>J p</b>	19	7.2	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
<b>PCB-1260 (2C)</b>	<b>47</b>		19	7.2	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	155	S1+ ^c	45 - 143	10/15/21 09:45	10/15/21 19:28	1
DCB Decachlorobiphenyl (Surr) (2C)	136		45 - 143	10/15/21 09:45	10/15/21 19:28	1
Tetrachloro-m-xylene (1C)	71		53 - 140	10/15/21 09:45	10/15/21 19:28	1
Tetrachloro-m-xylene (2C)	68		53 - 140	10/15/21 09:45	10/15/21 19:28	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>21</b>		1.6	0.64	mg/Kg	☼	11/09/21 13:56	11/10/21 10:53	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>2900</b>		670	220	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 04:40	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 04:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		10/20/21 04:40	20
4-Bromofluorobenzene (Surr)	94		80 - 120		10/20/21 04:40	20
Dibromofluoromethane (Surr)	102		80 - 120		10/20/21 04:40	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 04:40	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:19	1

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

**Date Collected: 10/12/21 10:11**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:19	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	72		10 - 150	10/19/21 17:40	10/20/21 16:19	1
2-Fluorobiphenyl (Surr)	69		35 - 100	10/19/21 17:40	10/20/21 16:19	1
2-Fluorophenol (Surr)	16		10 - 78	10/19/21 17:40	10/20/21 16:19	1
Nitrobenzene-d5 (Surr)	76		22 - 117	10/19/21 17:40	10/20/21 16:19	1
p-Terphenyl-d14 (Surr)	90		31 - 119	10/19/21 17:40	10/20/21 16:19	1
Phenol-d5 (Surr)	13		10 - 67	10/19/21 17:40	10/20/21 16:19	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:04	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:04	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:04	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:04	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:04	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:04	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	82		21 - 130	10/19/21 17:27	10/20/21 10:04	10
DCB Decachlorobiphenyl (Surr) (2C)	86		21 - 130	10/19/21 17:27	10/20/21 10:04	10
Tetrachloro-m-xylene (Surr) (1C)	60		39 - 139	10/19/21 17:27	10/20/21 10:04	10
Tetrachloro-m-xylene (Surr) (2C)	54		39 - 139	10/19/21 17:27	10/20/21 10:04	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 01:11	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	98		26 - 136	10/20/21 00:20	10/22/21 01:11	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	83		26 - 136	10/20/21 00:20	10/22/21 01:11	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:30	1
Barium	0.37	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:30	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:30	1
Chromium	0.018	J	0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:30	1
Lead	0.35	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:30	1

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

### Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:30	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:30	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:30	1
<b>Zinc</b>	<b>2.3</b>		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:30	1
<b>Nickel</b>	<b>0.057</b>	<b>J B</b>	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:30	1

### Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Solids</b>	<b>89</b>		0.10	0.10	%			10/14/21 12:23	1
<b>Total Volatile Solids</b>	<b>2.3</b>		0.10	0.10	%			10/14/21 12:23	1
<b>Percent Solids</b>	<b>89</b>	<b>!</b>	0.10	0.10	%			10/14/21 12:23	1
<b>Ignitable to Air</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Flame</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Friction</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Water</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:41	1
Sulfide, Reactive	ND	!	160	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
<b>Presence of Free Liquid</b>	<b>No</b>				No Unit			10/18/21 19:55	1
<b>Percent Moisture</b>	<b>8.3</b>	<b>!</b>	1.0	1.0	%			10/14/21 12:07	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>8.0</b>		0.01	0.01	S.U.			10/15/21 18:30	1
<b>Corrosivity</b>	<b>No</b>		0.01	0.01	NONE			10/15/21 18:30	1

### General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.6	1.6	mg/L			10/19/21 20:36	1
<b>Total Solids</b>	<b>110</b>	<b>!</b>	42	14	mg/L			10/18/21 06:25	1
<b>Residue, Total</b>	<b>110</b>	<b>!</b>	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	ND	!	75	25	mg/L			10/19/21 12:52	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:05	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 91.7

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		300	30	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
Toluene	ND		300	36	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>Ethylbenzene</b>	<b>63</b>	<b>J</b>	300	24	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>Xylenes, Total</b>	<b>620</b>		600	83	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>1,2,4-Trimethylbenzene</b>	<b>6000</b>		300	30	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>Naphthalene</b>	<b>2900</b>		300	120	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>Isopropylbenzene</b>	<b>150</b>	<b>J</b>	300	24	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50
<b>1,3,5-Trimethylbenzene</b>	<b>1700</b>		300	30	ug/Kg	☆	10/14/21 11:18	10/18/21 15:29	50

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 91.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Methyl tertiary butyl ether	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
1,2-Dichloroethane	ND		300	36	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		54 - 135	10/14/21 11:18	10/18/21 15:29	50
4-Bromofluorobenzene (Surr)	105		50 - 131	10/14/21 11:18	10/18/21 15:29	50
Dibromofluoromethane (Surr)	92		50 - 141	10/14/21 11:18	10/18/21 15:29	50
Toluene-d8 (Surr)	100		52 - 141	10/14/21 11:18	10/18/21 15:29	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1221 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1232 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1242 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1248 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
<b>PCB-1254 (2C)</b>	<b>8.6</b>	<b>J</b>	18	6.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
<b>PCB-1260 (2C)</b>	<b>7.9</b>	<b>J</b>	18	6.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	89	^c	45 - 143	10/15/21 09:45	10/15/21 19:38	1
DCB Decachlorobiphenyl (Surr) (2C)	78		45 - 143	10/15/21 09:45	10/15/21 19:38	1
Tetrachloro-m-xylene (1C)	62		53 - 140	10/15/21 09:45	10/15/21 19:38	1
Tetrachloro-m-xylene (2C)	63		53 - 140	10/15/21 09:45	10/15/21 19:38	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>21</b>		1.2	0.49	mg/Kg	☼	11/09/21 19:12	11/16/21 12:18	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>6500</b>		650	220	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:03	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:03	20

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

**Date Collected: 10/12/21 10:12**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		10/20/21 05:03	20
4-Bromofluorobenzene (Surr)	94		80 - 120		10/20/21 05:03	20
Dibromofluoromethane (Surr)	104		80 - 120		10/20/21 05:03	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 05:03	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:48	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:48	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		10 - 150	10/19/21 17:40	10/20/21 16:48	1
2-Fluorobiphenyl (Surr)	55		35 - 100	10/19/21 17:40	10/20/21 16:48	1
2-Fluorophenol (Surr)	17		10 - 78	10/19/21 17:40	10/20/21 16:48	1
Nitrobenzene-d5 (Surr)	56		22 - 117	10/19/21 17:40	10/20/21 16:48	1
p-Terphenyl-d14 (Surr)	74		31 - 119	10/19/21 17:40	10/20/21 16:48	1
Phenol-d5 (Surr)	15		10 - 67	10/19/21 17:40	10/20/21 16:48	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:15	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:15	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:15	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:15	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:15	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:15	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:15	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	80		21 - 130	10/19/21 17:27	10/20/21 10:15	10
DCB Decachlorobiphenyl (Surr) (2C)	90		21 - 130	10/19/21 17:27	10/20/21 10:15	10
Tetrachloro-m-xylene (Surr) (1C)	92		39 - 139	10/19/21 17:27	10/20/21 10:15	10
Tetrachloro-m-xylene (Surr) (2C)	82		39 - 139	10/19/21 17:27	10/20/21 10:15	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 01:47	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	99		26 - 136	10/20/21 00:20	10/22/21 01:47	1

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8151A - Herbicides (GC) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (2C)	95		26 - 136	10/20/21 00:20	10/22/21 01:47	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:15	1
Barium	0.27	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:15	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:15	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:15	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:15	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:15	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:15	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:15	1
Zinc	1.9		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:15	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:15	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	93		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	2.9		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	93	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:42	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	6.2	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.1	J ! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	100	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	100	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	25	J !	75	25	mg/L			10/19/21 12:53	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:07	1

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 93.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Toluene	ND		280	34	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Ethylbenzene	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Xylenes, Total	ND		570	80	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
<b>1,2,4-Trimethylbenzene</b>	<b>76</b>	<b>J</b>	280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Naphthalene	ND		280	110	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Isopropylbenzene	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,3,5-Trimethylbenzene	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,2-Dibromoethane	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Methyl tertiary butyl ether	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,2-Dichloroethane	ND		280	34	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		54 - 135	10/14/21 11:18	10/18/21 15:50	50
4-Bromofluorobenzene (Surr)	98		50 - 131	10/14/21 11:18	10/18/21 15:50	50
Dibromofluoromethane (Surr)	80		50 - 141	10/14/21 11:18	10/18/21 15:50	50
Toluene-d8 (Surr)	99		52 - 141	10/14/21 11:18	10/18/21 15:50	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1221 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1232 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1242 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1248 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1254 (1C)	ND		18	6.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
<b>PCB-1260 (2C)</b>	<b>9.2</b>	<b>J</b>	18	6.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	121	^c	45 - 143	10/16/21 09:07	10/18/21 11:03	1
DCB Decachlorobiphenyl (Surr) (2C)	102		45 - 143	10/16/21 09:07	10/18/21 11:03	1
Tetrachloro-m-xylene (1C)	73		53 - 140	10/16/21 09:07	10/18/21 11:03	1
Tetrachloro-m-xylene (2C)	69		53 - 140	10/16/21 09:07	10/18/21 11:03	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>20</b>		1.4	0.54	mg/Kg	☼	11/09/21 19:12	11/16/21 12:38	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>950</b>		630	210	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

**Date Collected: 10/12/21 10:16**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:26	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		10/20/21 05:26	20
4-Bromofluorobenzene (Surr)	94		80 - 120		10/20/21 05:26	20
Dibromofluoromethane (Surr)	101		80 - 120		10/20/21 05:26	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 05:26	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:17	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:17	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		10 - 150	10/19/21 17:40	10/20/21 17:17	1
2-Fluorobiphenyl (Surr)	71		35 - 100	10/19/21 17:40	10/20/21 17:17	1
2-Fluorophenol (Surr)	49		10 - 78	10/19/21 17:40	10/20/21 17:17	1
Nitrobenzene-d5 (Surr)	77		22 - 117	10/19/21 17:40	10/20/21 17:17	1
p-Terphenyl-d14 (Surr)	82		31 - 119	10/19/21 17:40	10/20/21 17:17	1
Phenol-d5 (Surr)	39		10 - 67	10/19/21 17:40	10/20/21 17:17	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:26	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:26	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:26	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:26	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:26	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:26	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:26	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	63		21 - 130	10/19/21 17:27	10/20/21 10:26	10
DCB Decachlorobiphenyl (Surr) (2C)	69		21 - 130	10/19/21 17:27	10/20/21 10:26	10
Tetrachloro-m-xylene (Surr) (1C)	83		39 - 139	10/19/21 17:27	10/20/21 10:26	10

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr) (2C)	77		39 - 139	10/19/21 17:27	10/20/21 10:26	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 02:22	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 02:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	91		26 - 136	10/20/21 00:20	10/22/21 02:22	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	81		26 - 136	10/20/21 00:20	10/22/21 02:22	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:18	1
Barium	0.40	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:18	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:18	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:18	1
Lead	0.15	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:18	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:18	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:18	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:18	1
Zinc	1.5		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:18	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:18	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:43	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	87		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	12		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	87	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:43	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	18.1	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.0	J ! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	120	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	120	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	68	J !	75	25	mg/L			10/19/21 12:54	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:09	1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		360	36	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Toluene	ND		360	43	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Ethylbenzene	ND		360	29	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Xylenes, Total	ND		720	100	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
1,2,4-Trimethylbenzene	230	J	360	36	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Naphthalene	650		360	140	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Isopropylbenzene	39	J	360	29	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
1,3,5-Trimethylbenzene	75	J	360	36	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
1,2-Dibromoethane	ND		360	29	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Methyl tertiary butyl ether	ND		360	36	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
1,2-Dichloroethane	ND		360	43	ug/Kg	✧	10/14/21 11:18	10/18/21 16:11	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		54 - 135				10/14/21 11:18	10/18/21 16:11	50
4-Bromofluorobenzene (Surr)	103		50 - 131				10/14/21 11:18	10/18/21 16:11	50
Dibromofluoromethane (Surr)	100		50 - 141				10/14/21 11:18	10/18/21 16:11	50
Toluene-d8 (Surr)	106		52 - 141				10/14/21 11:18	10/18/21 16:11	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		21	6.4	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1221 (1C)	ND		21	6.4	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1232 (1C)	ND		21	6.4	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1242 (1C)	ND		21	6.4	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1248 (1C)	ND		21	6.4	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1254 (2C)	23		21	7.8	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
PCB-1260 (1C)	ND		21	7.8	ug/Kg	✧	10/16/21 09:07	10/18/21 11:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	97	^c	45 - 143				10/16/21 09:07	10/18/21 11:14	1
DCB Decachlorobiphenyl (Surr) (2C)	86		45 - 143				10/16/21 09:07	10/18/21 11:14	1
Tetrachloro-m-xylene (1C)	58		53 - 140				10/16/21 09:07	10/18/21 11:14	1
Tetrachloro-m-xylene (2C)	57		53 - 140				10/16/21 09:07	10/18/21 11:14	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	32		1.8	0.72	mg/Kg	✧	11/09/21 19:12	11/16/21 12:30	1

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.9

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	3300		710	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:49	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:49	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120					10/20/21 05:49	20
4-Bromofluorobenzene (Surr)	93		80 - 120					10/20/21 05:49	20
Dibromofluoromethane (Surr)	104		80 - 120					10/20/21 05:49	20
Toluene-d8 (Surr)	103		80 - 120					10/20/21 05:49	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:46	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:46	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		10 - 150				10/19/21 17:40	10/20/21 17:46	1
2-Fluorobiphenyl (Surr)	69		35 - 100				10/19/21 17:40	10/20/21 17:46	1
2-Fluorophenol (Surr)	41		10 - 78				10/19/21 17:40	10/20/21 17:46	1
Nitrobenzene-d5 (Surr)	77		22 - 117				10/19/21 17:40	10/20/21 17:46	1
p-Terphenyl-d14 (Surr)	83		31 - 119				10/19/21 17:40	10/20/21 17:46	1
Phenol-d5 (Surr)	34		10 - 67				10/19/21 17:40	10/20/21 17:46	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:37	10

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:37	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:37	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:37	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:37	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:37	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:37	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	95		21 - 130	10/19/21 17:27	10/20/21 10:37	10
DCB Decachlorobiphenyl (Surr) (2C)	100		21 - 130	10/19/21 17:27	10/20/21 10:37	10
Tetrachloro-m-xylene (Surr) (1C)	94		39 - 139	10/19/21 17:27	10/20/21 10:37	10
Tetrachloro-m-xylene (Surr) (2C)	88		39 - 139	10/19/21 17:27	10/20/21 10:37	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 02:57	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 02:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	98		26 - 136	10/20/21 00:20	10/22/21 02:57	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	82		26 - 136	10/20/21 00:20	10/22/21 02:57	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:27	1
Barium	0.54	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:27	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:27	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:27	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:27	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:27	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:27	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:27	1
Zinc	7.3		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:27	1
Nickel	0.11	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:27	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	80		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	8.7		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	80	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:45	1

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND	!	150	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	18.2	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	110	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	110	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	37	J !	75	25	mg/L			10/19/21 12:48	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:18	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		360	36	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Toluene	ND		360	43	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Ethylbenzene	57	J	360	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Xylenes, Total	430	J	710	100	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
1,2,4-Trimethylbenzene	2100		360	36	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Naphthalene	570		360	140	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Isopropylbenzene	770		360	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
1,3,5-Trimethylbenzene	770		360	36	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
1,2-Dibromoethane	ND		360	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
Methyl tertiary butyl ether	ND		360	36	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50
1,2-Dichloroethane	ND		360	43	ug/Kg	✱	10/14/21 11:18	10/18/21 16:31	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		54 - 135	10/14/21 11:18	10/18/21 16:31	50
4-Bromofluorobenzene (Surr)	108		50 - 131	10/14/21 11:18	10/18/21 16:31	50
Dibromofluoromethane (Surr)	92		50 - 141	10/14/21 11:18	10/18/21 16:31	50
Toluene-d8 (Surr)	107		52 - 141	10/14/21 11:18	10/18/21 16:31	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		21	6.4	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1221 (1C)	ND		21	6.4	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1232 (1C)	ND		21	6.4	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1242 (1C)	ND		21	6.4	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1248 (1C)	ND		21	6.4	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1254 (2C)	11	J	21	7.8	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1
PCB-1260 (1C)	13	J	21	7.8	ug/Kg	✱	10/16/21 09:07	10/18/21 11:24	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	95	^c	45 - 143	10/16/21 09:07	10/18/21 11:24	1
DCB Decachlorobiphenyl (Surr) (2C)	84		45 - 143	10/16/21 09:07	10/18/21 11:24	1
Tetrachloro-m-xylene (1C)	63		53 - 140	10/16/21 09:07	10/18/21 11:24	1
Tetrachloro-m-xylene (2C)	61		53 - 140	10/16/21 09:07	10/18/21 11:24	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28		1.6	0.64	mg/Kg	☆	11/09/21 13:56	11/10/21 11:03	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	5000		710	240	mg/Kg	☆	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

Date Collected: 10/12/21 10:36

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 06:12	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 06:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		10/20/21 06:12	20
4-Bromofluorobenzene (Surr)	93		80 - 120		10/20/21 06:12	20
Dibromofluoromethane (Surr)	103		80 - 120		10/20/21 06:12	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 06:12	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:15	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:15	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 18:15	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

**Date Collected: 10/12/21 10:36**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		10 - 150	10/19/21 17:40	10/20/21 18:15	1
2-Fluorobiphenyl (Surr)	70		35 - 100	10/19/21 17:40	10/20/21 18:15	1
2-Fluorophenol (Surr)	37		10 - 78	10/19/21 17:40	10/20/21 18:15	1
Nitrobenzene-d5 (Surr)	74		22 - 117	10/19/21 17:40	10/20/21 18:15	1
p-Terphenyl-d14 (Surr)	82		31 - 119	10/19/21 17:40	10/20/21 18:15	1
Phenol-d5 (Surr)	30		10 - 67	10/19/21 17:40	10/20/21 18:15	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:49	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:49	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:49	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:49	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:49	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:49	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:49	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	99		21 - 130	10/19/21 17:27	10/20/21 10:49	10
DCB Decachlorobiphenyl (Surr) (2C)	103		21 - 130	10/19/21 17:27	10/20/21 10:49	10
Tetrachloro-m-xylene (Surr) (1C)	60		39 - 139	10/19/21 17:27	10/20/21 10:49	10
Tetrachloro-m-xylene (Surr) (2C)	56		39 - 139	10/19/21 17:27	10/20/21 10:49	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 03:33	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 03:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	96		26 - 136	10/20/21 00:20	10/22/21 03:33	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	80		26 - 136	10/20/21 00:20	10/22/21 03:33	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:33	1
Barium	0.52	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:33	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:33	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:33	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:33	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:33	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:33	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:33	1
Zinc	3.5		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:33	1
Nickel	0.044	J B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:33	1

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00016	J	0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:54	1



# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

Date Collected: 10/12/21 10:36

Matrix: Solid

Date Received: 10/13/21 18:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	81		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	8.8		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	81	!	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	No		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	No		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:46	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1
Percent Moisture	17.3	!	1.0	1.0	%			10/14/21 12:07	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	No		0.01	0.01	NONE			10/15/21 18:30	1

## General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	92	!	42	14	mg/L			10/18/21 06:25	1
Residue, Total	92	!	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	68	J !	75	25	mg/L			10/19/21 12:52	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:20	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

Date Collected: 10/12/21 10:36

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 82.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		350	35	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Toluene	55	J	350	42	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Ethylbenzene	160	J	350	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Xylenes, Total	1300		700	99	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
1,2,4-Trimethylbenzene	3300		350	35	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Naphthalene	790		350	140	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Isopropylbenzene	1400		350	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
1,3,5-Trimethylbenzene	1200		350	35	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
1,2-Dibromoethane	ND		350	28	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Methyl tertiary butyl ether	ND		350	35	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
1,2-Dichloroethane	ND		350	42	ug/Kg	✱	10/14/21 11:18	10/18/21 16:52	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		54 - 135				10/14/21 11:18	10/18/21 16:52	50
4-Bromofluorobenzene (Surr)	127		50 - 131				10/14/21 11:18	10/18/21 16:52	50
Dibromofluoromethane (Surr)	95		50 - 141				10/14/21 11:18	10/18/21 16:52	50
Toluene-d8 (Surr)	111		52 - 141				10/14/21 11:18	10/18/21 16:52	50

# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

Date Collected: 10/12/21 10:36

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 82.7

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1221 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1232 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1242 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1248 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
<b>PCB-1254 (2C)</b>	<b>11</b>	<b>J</b>	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
<b>PCB-1260 (2C)</b>	<b>16</b>	<b>J</b>	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	92	^c	45 - 143	10/16/21 09:07	10/18/21 11:35	1
DCB Decachlorobiphenyl (Surr) (2C)	89		45 - 143	10/16/21 09:07	10/18/21 11:35	1
Tetrachloro-m-xylene (1C)	65		53 - 140	10/16/21 09:07	10/18/21 11:35	1
Tetrachloro-m-xylene (2C)	63		53 - 140	10/16/21 09:07	10/18/21 11:35	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>25</b>		1.6	0.66	mg/Kg	☼	11/09/21 19:12	11/16/21 12:22	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>6100</b>		720	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

## Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 06:35	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 06:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		10/20/21 06:35	20
4-Bromofluorobenzene (Surr)	94		80 - 120		10/20/21 06:35	20
Dibromofluoromethane (Surr)	104		80 - 120		10/20/21 06:35	20
Toluene-d8 (Surr)	103		80 - 120		10/20/21 06:35	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:44	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

**Date Collected: 10/12/21 10:38**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:44	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		10 - 150	10/19/21 17:40	10/20/21 18:44	1
2-Fluorobiphenyl (Surr)	70		35 - 100	10/19/21 17:40	10/20/21 18:44	1
2-Fluorophenol (Surr)	35		10 - 78	10/19/21 17:40	10/20/21 18:44	1
Nitrobenzene-d5 (Surr)	78		22 - 117	10/19/21 17:40	10/20/21 18:44	1
p-Terphenyl-d14 (Surr)	84		31 - 119	10/19/21 17:40	10/20/21 18:44	1
Phenol-d5 (Surr)	29		10 - 67	10/19/21 17:40	10/20/21 18:44	1

## Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 11:00	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 11:00	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 11:00	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 11:00	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 11:00	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 11:00	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 11:00	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	86		21 - 130	10/19/21 17:27	10/20/21 11:00	10
DCB Decachlorobiphenyl (Surr) (2C)	93		21 - 130	10/19/21 17:27	10/20/21 11:00	10
Tetrachloro-m-xylene (Surr) (1C)	82		39 - 139	10/19/21 17:27	10/20/21 11:00	10
Tetrachloro-m-xylene (Surr) (2C)	78		39 - 139	10/19/21 17:27	10/20/21 11:00	10

## Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 04:08	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 04:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	96		26 - 136	10/20/21 00:20	10/22/21 04:08	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	80		26 - 136	10/20/21 00:20	10/22/21 04:08	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:52	1
Barium	0.44	B	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:52	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:52	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:52	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:52	1

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

**Method: 6010C - Metals (ICP) - TCLP (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:52	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:52	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:52	1
<b>Zinc</b>	<b>2.6</b>		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:52	1
<b>Nickel</b>	<b>0.11</b>	<b>B</b>	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:52	1

**Method: 7470A - Mercury (CVAA) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 19:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Solids</b>	<b>81</b>		0.10	0.10	%			10/14/21 12:23	1
<b>Total Volatile Solids</b>	<b>6.3</b>		0.10	0.10	%			10/14/21 12:23	1
<b>Percent Solids</b>	<b>81</b>	<b>!</b>	0.10	0.10	%			10/14/21 12:23	1
<b>Ignitable to Air</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Flame</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Friction</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
<b>Ignitable to Water</b>	<b>No</b>		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	57	19	mg/Kg		10/15/21 07:55	10/15/21 14:48	1
Sulfide, Reactive	ND	!	150	51	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
<b>Presence of Free Liquid</b>	<b>No</b>				No Unit			10/18/21 19:55	1
<b>Percent Moisture</b>	<b>17.5</b>	<b>!</b>	1.0	1.0	%			10/14/21 12:07	1

**General Chemistry - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.6</b>		0.01	0.01	S.U.			10/15/21 18:30	1
<b>Corrosivity</b>	<b>No</b>		0.01	0.01	NONE			10/15/21 18:30	1

**General Chemistry - ASTM Leach**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>1.9</b>	<b>J ! B</b>	5.4	1.5	mg/L			10/19/21 20:36	1
<b>Total Solids</b>	<b>73</b>	<b>!</b>	42	14	mg/L			10/18/21 06:25	1
<b>Residue, Total</b>	<b>73</b>	<b>!</b>	42	14	mg/L			10/18/21 06:25	1
<b>Chemical Oxygen Demand</b>	<b>35</b>	<b>J !</b>	75	25	mg/L			10/19/21 12:45	1
<b>Ammonia as N</b>	<b>0.061</b>	<b>J !</b>	0.10	0.050	mg/L			11/02/21 12:49	1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 82.5

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		350	35	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
Toluene	ND		350	42	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>Ethylbenzene</b>	<b>36</b>	<b>J</b>	350	28	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>Xylenes, Total</b>	<b>330</b>	<b>J</b>	710	99	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>1,2,4-Trimethylbenzene</b>	<b>1600</b>		350	35	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>Naphthalene</b>	<b>410</b>		350	140	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>Isopropylbenzene</b>	<b>500</b>		350	28	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50
<b>1,3,5-Trimethylbenzene</b>	<b>610</b>		350	35	ug/Kg	☆	10/14/21 11:18	10/18/21 17:13	50

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# Client Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

**Date Collected: 10/12/21 10:38**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 82.5**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Methyl tertiary butyl ether	ND		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
1,2-Dichloroethane	ND		350	42	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		54 - 135	10/14/21 11:18	10/18/21 17:13	50
4-Bromofluorobenzene (Surr)	109		50 - 131	10/14/21 11:18	10/18/21 17:13	50
Dibromofluoromethane (Surr)	98		50 - 141	10/14/21 11:18	10/18/21 17:13	50
Toluene-d8 (Surr)	108		52 - 141	10/14/21 11:18	10/18/21 17:13	50

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1221 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1232 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1242 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1248 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
<b>PCB-1254 (2C)</b>	<b>12</b>	<b>J</b>	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
<b>PCB-1260 (2C)</b>	<b>22</b>		20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	97	^c	45 - 143	10/16/21 09:07	10/18/21 11:45	1
DCB Decachlorobiphenyl (Surr) (2C)	87		45 - 143	10/16/21 09:07	10/18/21 11:45	1
Tetrachloro-m-xylene (1C)	63		53 - 140	10/16/21 09:07	10/18/21 11:45	1
Tetrachloro-m-xylene (2C)	62		53 - 140	10/16/21 09:07	10/18/21 11:45	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>33</b>		1.7	0.67	mg/Kg	☼	11/09/21 13:56	11/10/21 11:07	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>3500</b>		720	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

# Surrogate Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	103	105	94	105
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	107	101	84	103
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	105	99	89	102
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2 021-10-12	106	105	92	100
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	103	98	80	99
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	108	103	100	106
410-58999-7	Hartranft-10TH-RB44062-RT-1- 2021-10-12	104	108	92	107
410-58999-8	Hartranft-10TH-RB44062-RT-2- 2021-10-12	104	127	95	111
410-58999-9	Hartranft-10TH-RB44062-RT-3- 2021-10-12	105	109	98	108
LCS 410-183894/4	Lab Control Sample	95	94	95	94
LCS 410-183894/5	Lab Control Sample Dup	96	95	94	95
MB 410-183894/7	Method Blank	97	92	93	94

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
LCS 410-184674/4	Lab Control Sample	102	96	103	104
MB 410-184674/6	Method Blank	103	93	105	103

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	104	95	102	104
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	105	94	102	103
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	104	95	103	102

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# Surrogate Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2	105	94	102	103
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2	105	94	104	103
410-58999-6	021-10-12 Hartranft-10TH-CONF-SOIL-6-2	104	94	101	103
410-58999-7	021-10-12 Hartranft-10TH-RB44062-RT-1-	106	93	104	103
410-58999-8	2021-10-12 Hartranft-10TH-RB44062-RT-2-	103	93	103	103
410-58999-9	2021-10-12 Hartranft-10TH-RB44062-RT-3-	105	94	104	103

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2				

**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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-150)	FBP (35-100)	2FP (10-78)	NBZ (22-117)	TPHd14 (31-119)	PHL (10-67)
LCS 410-184616/2-A	Lab Control Sample	100	77	52	85	91	41
LCSD 410-184616/3-A	Lab Control Sample Dup	98	73	54	82	92	43
MB 410-184616/14-A	Method Blank	91	64	47	74	88	38

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

# Surrogate Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-150)	FBP (35-100)	2FP (10-78)	NBZ (22-117)	TPHd14 (31-119)	PHL (10-67)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	66	71	22	76	76	19
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2	85	69	43	77	89	34
410-58999-3	021-10-12 Hartranft-10TH-CONF-SOIL-3-2	56	71	11	76	89	11
410-58999-4	021-10-12 Hartranft-10TH-CONF-SOIL-4-2	72	69	16	76	90	13
410-58999-5	021-10-12 Hartranft-10TH-CONF-SOIL-5-2	67	55	17	56	74	15
410-58999-6	021-10-12 Hartranft-10TH-CONF-SOIL-6-2	95	71	49	77	82	39
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	90	69	41	77	83	34
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	82	70	37	74	82	30
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	77	70	35	78	84	29

### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
LCS 410-184649/2-A	Lab Control Sample	68	77	58	60
LCS 410-184649/2-A - RA	Lab Control Sample	85	77	84	81
LCSD 410-184649/3-A	Lab Control Sample Dup	61	69	60	63
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	78	72	86	84
MB 410-184649/14-A	Method Blank	26	28	44	44
MB 410-184649/1-A	Method Blank	32	36	52	54

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	88	91	75	68
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2	78	83	69	61
410-58999-3	021-10-12 Hartranft-10TH-CONF-SOIL-3-2	90	92	64	58
	021-10-12				

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# Surrogate Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2	82	86	60	54
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2	80	90	92	82
410-58999-6	021-10-12 Hartranft-10TH-CONF-SOIL-6-2	63	69	83	77
410-58999-7	021-10-12 Hartranft-10TH-RB44062-RT-1-	95	100	94	88
410-58999-8	2021-10-12 Hartranft-10TH-RB44062-RT-2-	99	103	60	56
410-58999-9	2021-10-12 Hartranft-10TH-RB44062-RT-3-	86	93	82	78
<b>Surrogate Legend</b>					
DCB = DCB Decachlorobiphenyl (Surr)					
TCX = Tetrachloro-m-xylene (Surr)					

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	99 ^c	91	61	58
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2	79 ^c	68	65	60
410-58999-3	021-10-12 Hartranft-10TH-CONF-SOIL-3-2	155 S1+	136	71	68
410-58999-4	021-10-12 Hartranft-10TH-CONF-SOIL-4-2	89 ^c	78	62	63
410-58999-5	021-10-12 Hartranft-10TH-CONF-SOIL-5-2	121 ^c	102	73	69
410-58999-6	021-10-12 Hartranft-10TH-CONF-SOIL-6-2	97 ^c	86	58	57
410-58999-7	Hartranft-10TH-RB44062-RT-1-	95 ^c	84	63	61
410-58999-8	2021-10-12 Hartranft-10TH-RB44062-RT-2-	92 ^c	89	65	63
410-58999-9	2021-10-12 Hartranft-10TH-RB44062-RT-3-	97 ^c	87	63	62
LCS 410-183168/2-A	Lab Control Sample	115	98	99	90
LCS 410-183581/2-A	Lab Control Sample	124	97	107	89
LCS 410-184122/2-A	Lab Control Sample	124	92	108	89
MB 410-183168/1-A	Method Blank	111	91	97	87
MB 410-183581/1-A	Method Blank	122	94	106	89
MB 410-184122/1-A	Method Blank	121	89	107	89
<b>Surrogate Legend</b>					
DCB = DCB Decachlorobiphenyl (Surr)					
TCX = Tetrachloro-m-xylene					

# Surrogate Summary

Client: NorthStar Contracting Group, Inc.  
 Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (26-136)	DCPAA2 (26-136)
LCS 410-184800/2-A	Lab Control Sample	97	84
LCSD 410-184800/3-A	Lab Control Sample Dup	89	76
MB 410-184800/1-A	Method Blank	95	82

#### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (26-136)	DCPAA2 (26-136)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	96	80
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	99	87
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	98	86
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2 021-10-12	98	83
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	99	95
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	91	81
410-58999-7	Hartranft-10TH-RB44062-RT-1- 2021-10-12	98	82
410-58999-8	Hartranft-10TH-RB44062-RT-2- 2021-10-12	96	80
410-58999-9	Hartranft-10TH-RB44062-RT-3- 2021-10-12	96	80

#### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)



# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 410-183894/7**  
**Matrix: Solid**  
**Analysis Batch: 183894**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		250	25	ug/Kg			10/18/21 11:34	50
Toluene	ND		250	30	ug/Kg			10/18/21 11:34	50
Ethylbenzene	ND		250	20	ug/Kg			10/18/21 11:34	50
Xylenes, Total	ND		500	70	ug/Kg			10/18/21 11:34	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			10/18/21 11:34	50
Naphthalene	ND		250	100	ug/Kg			10/18/21 11:34	50
Isopropylbenzene	ND		250	20	ug/Kg			10/18/21 11:34	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			10/18/21 11:34	50
1,2-Dibromoethane	ND		250	20	ug/Kg			10/18/21 11:34	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			10/18/21 11:34	50
1,2-Dichloroethane	ND		250	30	ug/Kg			10/18/21 11:34	50

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		54 - 135		10/18/21 11:34	50
4-Bromofluorobenzene (Surr)	92		50 - 131		10/18/21 11:34	50
Dibromofluoromethane (Surr)	93		50 - 141		10/18/21 11:34	50
Toluene-d8 (Surr)	94		52 - 141		10/18/21 11:34	50

**Lab Sample ID: LCS 410-183894/4**  
**Matrix: Solid**  
**Analysis Batch: 183894**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1000	987		ug/Kg		99	80 - 120
Toluene	1000	983		ug/Kg		98	80 - 120
Ethylbenzene	1000	970		ug/Kg		97	78 - 120
Xylenes, Total	3000	2950		ug/Kg		98	75 - 120
1,2,4-Trimethylbenzene	1000	979		ug/Kg		98	73 - 120
Naphthalene	1000	872		ug/Kg		87	48 - 130
Isopropylbenzene	1000	1000		ug/Kg		100	77 - 120
1,3,5-Trimethylbenzene	1000	978		ug/Kg		98	73 - 120
1,2-Dibromoethane	1000	972		ug/Kg		97	76 - 120
Methyl tertiary butyl ether	1000	930		ug/Kg		93	72 - 120
1,2-Dichloroethane	1000	944		ug/Kg		94	71 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		54 - 135
4-Bromofluorobenzene (Surr)	94		50 - 131
Dibromofluoromethane (Surr)	95		50 - 141
Toluene-d8 (Surr)	94		52 - 141

**Lab Sample ID: LCSD 410-183894/5**  
**Matrix: Solid**  
**Analysis Batch: 183894**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	1000	978		ug/Kg		98	80 - 120	1	30
Toluene	1000	984		ug/Kg		98	80 - 120	0	30

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCSD 410-183894/5**  
**Matrix: Solid**  
**Analysis Batch: 183894**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	1000	967		ug/Kg		97	78 - 120	0	30
Xylenes, Total	3000	2940		ug/Kg		98	75 - 120	0	30
1,2,4-Trimethylbenzene	1000	975		ug/Kg		97	73 - 120	0	30
Naphthalene	1000	879		ug/Kg		88	48 - 130	1	30
Isopropylbenzene	1000	990		ug/Kg		99	77 - 120	1	30
1,3,5-Trimethylbenzene	1000	967		ug/Kg		97	73 - 120	1	30
1,2-Dibromoethane	1000	967		ug/Kg		97	76 - 120	1	30
Methyl tertiary butyl ether	1000	930		ug/Kg		93	72 - 120	0	30
1,2-Dichloroethane	1000	929		ug/Kg		93	71 - 128	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	96		54 - 135
4-Bromofluorobenzene (Surr)	95		50 - 131
Dibromofluoromethane (Surr)	94		50 - 141
Toluene-d8 (Surr)	95		52 - 141

**Lab Sample ID: MB 410-184674/6**  
**Matrix: Solid**  
**Analysis Batch: 184674**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Carbon tetrachloride	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Chlorobenzene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Chloroform	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
1,1-Dichloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
2-Butanone	ND		0.010	0.00050	mg/L			10/19/21 22:55	1
Tetrachloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Trichloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Vinyl chloride	ND		0.0010	0.00020	mg/L			10/19/21 22:55	1
1,2-Dichloroethane	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		10/19/21 22:55	1
4-Bromofluorobenzene (Surr)	93		80 - 120		10/19/21 22:55	1
Dibromofluoromethane (Surr)	105		80 - 120		10/19/21 22:55	1
Toluene-d8 (Surr)	103		80 - 120		10/19/21 22:55	1

**Lab Sample ID: LCS 410-184674/4**  
**Matrix: Solid**  
**Analysis Batch: 184674**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0200	0.0171		mg/L		85	80 - 120
1,1-Dichloroethene	0.0200	0.0171		mg/L		85	80 - 131
2-Butanone	0.250	0.205		mg/L		82	59 - 135
Trichloroethene	0.0200	0.0174		mg/L		87	80 - 120
Vinyl chloride	0.0200	0.0163		mg/L		81	56 - 120

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 410-184674/4**  
**Matrix: Solid**  
**Analysis Batch: 184674**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.0200	0.0190		mg/L		95	73 - 124
<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
1,2-Dichloroethane-d4 (Surr)	102		80 - 120				
4-Bromofluorobenzene (Surr)	96		80 - 120				
Dibromofluoromethane (Surr)	103		80 - 120				
Toluene-d8 (Surr)	104		80 - 120				

**Lab Sample ID: 410-58999-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 184674**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**  
**Prep Type: TCLP**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.400	0.379		mg/L			
1,1-Dichloroethene	ND		0.400	0.403		mg/L			
2-Butanone	ND		5.00	3.97		mg/L			
Trichloroethene	ND		0.400	0.385		mg/L			
Vinyl chloride	ND		0.400	0.403		mg/L			
1,2-Dichloroethane	ND		0.400	0.398		mg/L			
<b>Surrogate</b>	<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)									
4-Bromofluorobenzene (Surr)									
Dibromofluoromethane (Surr)									
Toluene-d8 (Surr)									

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 410-184616/14-A**  
**Matrix: Solid**  
**Analysis Batch: 184885**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184616**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 11:30	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 11:30	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 11:30	1
<b>Surrogate</b>	<b>MB %Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol (Surr)	91		10 - 150				10/19/21 17:40	10/20/21 11:30	1

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 410-184616/14-A**  
**Matrix: Solid**  
**Analysis Batch: 184885**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184616**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	64		35 - 100	10/19/21 17:40	10/20/21 11:30	1
2-Fluorophenol (Surr)	47		10 - 78	10/19/21 17:40	10/20/21 11:30	1
Nitrobenzene-d5 (Surr)	74		22 - 117	10/19/21 17:40	10/20/21 11:30	1
p-Terphenyl-d14 (Surr)	88		31 - 119	10/19/21 17:40	10/20/21 11:30	1
Phenol-d5 (Surr)	38		10 - 67	10/19/21 17:40	10/20/21 11:30	1

**Lab Sample ID: LCS 410-184616/2-A**  
**Matrix: Solid**  
**Analysis Batch: 184885**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184616**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
2,4,5-Trichlorophenol	0.250	0.234		mg/L		94	66 - 120	
2,4,6-Trichlorophenol	0.250	0.234		mg/L		94	63 - 120	
2,4-Dinitrotoluene	0.250	0.238		mg/L		95	71 - 120	
2-Methylphenol	0.250	0.212		mg/L		85	51 - 120	
4-Methylphenol	0.250	0.197		mg/L		79	44 - 120	
Hexachlorobenzene	0.250	0.219		mg/L		88	65 - 120	
Hexachlorobutadiene	0.250	0.165		mg/L		66	24 - 120	
Hexachloroethane	0.250	0.160		mg/L		64	22 - 120	
Nitrobenzene	0.250	0.217		mg/L		87	59 - 120	
Pentachlorophenol	0.500	0.433		mg/L		87	48 - 123	
Pyridine	0.500	0.242		mg/L		48	23 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	100		10 - 150
2-Fluorobiphenyl (Surr)	77		35 - 100
2-Fluorophenol (Surr)	52		10 - 78
Nitrobenzene-d5 (Surr)	85		22 - 117
p-Terphenyl-d14 (Surr)	91		31 - 119
Phenol-d5 (Surr)	41		10 - 67

**Lab Sample ID: LCSD 410-184616/3-A**  
**Matrix: Solid**  
**Analysis Batch: 184885**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 184616**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	0.250	0.236		mg/L		94	66 - 120	1	30
2,4,6-Trichlorophenol	0.250	0.236		mg/L		94	63 - 120	1	30
2,4-Dinitrotoluene	0.250	0.233		mg/L		93	71 - 120	2	30
2-Methylphenol	0.250	0.214		mg/L		86	51 - 120	1	30
4-Methylphenol	0.250	0.201		mg/L		81	44 - 120	2	30
Hexachlorobenzene	0.250	0.215		mg/L		86	65 - 120	2	30
Hexachlorobutadiene	0.250	0.158		mg/L		63	24 - 120	4	30
Hexachloroethane	0.250	0.149		mg/L		59	22 - 120	8	30
Nitrobenzene	0.250	0.213		mg/L		85	59 - 120	2	30
Pentachlorophenol	0.500	0.449		mg/L		90	48 - 123	4	30

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 410-184616/3-A**  
**Matrix: Solid**  
**Analysis Batch: 184885**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 184616**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pyridine	0.500	0.246		mg/L		49	23 - 120	1	30
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
2,4,6-Tribromophenol (Surr)	98		10 - 150						
2-Fluorobiphenyl (Surr)	73		35 - 100						
2-Fluorophenol (Surr)	54		10 - 78						
Nitrobenzene-d5 (Surr)	82		22 - 117						
p-Terphenyl-d14 (Surr)	92		31 - 119						
Phenol-d5 (Surr)	43		10 - 67						

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 410-184649/14-A**  
**Matrix: Solid**  
**Analysis Batch: 184818**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.00010	0.000040	mg/L		10/19/21 17:27	10/20/21 11:11	1
gamma-BHC (Lindane) (1C)	ND		0.000050	0.000010	mg/L		10/19/21 17:27	10/20/21 11:11	1
Heptachlor (1C)	ND		0.000050	0.000020	mg/L		10/19/21 17:27	10/20/21 11:11	1
Heptachlor epoxide (1C)	ND		0.000050	0.000012	mg/L		10/19/21 17:27	10/20/21 11:11	1
Methoxychlor (1C)	ND		0.000050	0.000015	mg/L		10/19/21 17:27	10/20/21 11:11	1
Toxaphene (1C)	ND		0.015	0.0050	mg/L		10/19/21 17:27	10/20/21 11:11	1
Chlordane (n.o.s.) (1C)	ND		0.0025	0.00080	mg/L		10/19/21 17:27	10/20/21 11:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr) (1C)	26		21 - 130				10/19/21 17:27	10/20/21 11:11	1
DCB Decachlorobiphenyl (Surr) (2C)	28		21 - 130				10/19/21 17:27	10/20/21 11:11	1
Tetrachloro-m-xylene (Surr) (1C)	44		39 - 139				10/19/21 17:27	10/20/21 11:11	1
Tetrachloro-m-xylene (Surr) (2C)	44		39 - 139				10/19/21 17:27	10/20/21 11:11	1

**Lab Sample ID: MB 410-184649/1-A**  
**Matrix: Solid**  
**Analysis Batch: 184818**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.00010	0.000040	mg/L		10/19/21 17:27	10/20/21 08:00	1
gamma-BHC (Lindane) (1C)	ND		0.000050	0.000010	mg/L		10/19/21 17:27	10/20/21 08:00	1
Heptachlor (1C)	ND		0.000050	0.000020	mg/L		10/19/21 17:27	10/20/21 08:00	1
Heptachlor epoxide (1C)	ND		0.000050	0.000012	mg/L		10/19/21 17:27	10/20/21 08:00	1
Methoxychlor (1C)	ND		0.000050	0.000015	mg/L		10/19/21 17:27	10/20/21 08:00	1
Toxaphene (1C)	ND		0.015	0.0050	mg/L		10/19/21 17:27	10/20/21 08:00	1
Chlordane (n.o.s.) (1C)	ND		0.0025	0.00080	mg/L		10/19/21 17:27	10/20/21 08:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr) (1C)	32		21 - 130				10/19/21 17:27	10/20/21 08:00	1
DCB Decachlorobiphenyl (Surr) (2C)	36		21 - 130				10/19/21 17:27	10/20/21 08:00	1
Tetrachloro-m-xylene (Surr) (1C)	52		39 - 139				10/19/21 17:27	10/20/21 08:00	1

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: MB 410-184649/1-A**  
**Matrix: Solid**  
**Analysis Batch: 184818**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene (Surr) (2C)	54		39 - 139	10/19/21 17:27	10/20/21 08:00	1

**Lab Sample ID: LCS 410-184649/2-A**  
**Matrix: Solid**  
**Analysis Batch: 184818**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
gamma-BHC (Lindane) (2C)	0.000250	0.000226		mg/L		90	51 - 132	
Heptachlor (1C)	0.000250	0.000217		mg/L		87	24 - 133	
Heptachlor epoxide (2C)	0.000375	0.000366		mg/L		97	56 - 132	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	68		21 - 130
DCB Decachlorobiphenyl (Surr) (2C)	77		21 - 130
Tetrachloro-m-xylene (Surr) (1C)	58		39 - 139
Tetrachloro-m-xylene (Surr) (2C)	60		39 - 139

**Lab Sample ID: LCSD 410-184649/3-A**  
**Matrix: Solid**  
**Analysis Batch: 184818**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
gamma-BHC (Lindane) (2C)	0.000250	0.000200		mg/L		80	51 - 132	12	30
Heptachlor (1C)	0.000250	0.000212		mg/L		85	24 - 133	3	30
Heptachlor epoxide (1C)	0.000375	0.000330		mg/L		88	56 - 132	10	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	61		21 - 130
DCB Decachlorobiphenyl (Surr) (2C)	69		21 - 130
Tetrachloro-m-xylene (Surr) (1C)	60		39 - 139
Tetrachloro-m-xylene (Surr) (2C)	63		39 - 139

## Method: 8081B - Organochlorine Pesticides (GC) - RA

**Lab Sample ID: LCS 410-184649/2-A**  
**Matrix: Solid**  
**Analysis Batch: 185014**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8081B - Organochlorine Pesticides (GC) - RA (Continued)

**Lab Sample ID: LCS 410-184649/2-A**  
**Matrix: Solid**  
**Analysis Batch: 185014**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C) - RA	85		21 - 130
DCB Decachlorobiphenyl (Surr) (2C) - RA	77		21 - 130
Tetrachloro-m-xylene (Surr) (1C) - RA	84		39 - 139
Tetrachloro-m-xylene (Surr) (2C) - RA	81		39 - 139

**Lab Sample ID: LCSD 410-184649/3-A**  
**Matrix: Solid**  
**Analysis Batch: 185014**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 184649**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Methoxychlor (2C) - RA	0.00100	0.00143		mg/L		142	58 - 165	0	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C) - RA	78		21 - 130
DCB Decachlorobiphenyl (Surr) (2C) - RA	72		21 - 130
Tetrachloro-m-xylene (Surr) (1C) - RA	86		39 - 139
Tetrachloro-m-xylene (Surr) (2C) - RA	84		39 - 139

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 410-183168/1-A**  
**Matrix: Solid**  
**Analysis Batch: 183531**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183168**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1221 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1232 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1242 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1248 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1254 (2C)	ND		17	6.4	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1260 (2C)	ND		17	6.4	ug/Kg		10/15/21 09:45	10/15/21 17:22	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	111		45 - 143	10/15/21 09:45	10/15/21 17:22	1
DCB Decachlorobiphenyl (Surr) (2C)	91		45 - 143	10/15/21 09:45	10/15/21 17:22	1
Tetrachloro-m-xylene (1C)	97		53 - 140	10/15/21 09:45	10/15/21 17:22	1
Tetrachloro-m-xylene (2C)	87		53 - 140	10/15/21 09:45	10/15/21 17:22	1



# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCS 410-183168/2-A**  
**Matrix: Solid**  
**Analysis Batch: 183531**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183168**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (2C)	167	129		ug/Kg		77	68 - 121
PCB-1260 (2C)	168	157		ug/Kg		94	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	115		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	98		45 - 143
Tetrachloro-m-xylene (1C)	99		53 - 140
Tetrachloro-m-xylene (2C)	90		53 - 140

**Lab Sample ID: MB 410-183581/1-A**  
**Matrix: Solid**  
**Analysis Batch: 183928**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183581**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1221 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1232 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1242 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1248 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1254 (1C)	ND		17	6.4	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1260 (1C)	ND		17	6.4	ug/Kg		10/16/21 09:07	10/18/21 10:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	122		45 - 143	10/16/21 09:07	10/18/21 10:22	1
DCB Decachlorobiphenyl (Surr) (2C)	94		45 - 143	10/16/21 09:07	10/18/21 10:22	1
Tetrachloro-m-xylene (1C)	106		53 - 140	10/16/21 09:07	10/18/21 10:22	1
Tetrachloro-m-xylene (2C)	89		53 - 140	10/16/21 09:07	10/18/21 10:22	1

**Lab Sample ID: LCS 410-183581/2-A**  
**Matrix: Solid**  
**Analysis Batch: 183928**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183581**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (1C)	167	156		ug/Kg		93	68 - 121
PCB-1260 (1C)	168	196		ug/Kg		117	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	124		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	97		45 - 143
Tetrachloro-m-xylene (1C)	107		53 - 140
Tetrachloro-m-xylene (2C)	89		53 - 140



# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: MB 410-184122/1-A**  
**Matrix: Solid**  
**Analysis Batch: 184470**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184122**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1221 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1232 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1242 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1248 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1254 (2C)	ND		17	6.4	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1260 (2C)	ND		17	6.4	ug/Kg		10/18/21 18:09	10/19/21 07:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	121		45 - 143	10/18/21 18:09	10/19/21 07:39	1
DCB Decachlorobiphenyl (Surr) (2C)	89		45 - 143	10/18/21 18:09	10/19/21 07:39	1
Tetrachloro-m-xylene (1C)	107		53 - 140	10/18/21 18:09	10/19/21 07:39	1
Tetrachloro-m-xylene (2C)	89		53 - 140	10/18/21 18:09	10/19/21 07:39	1

**Lab Sample ID: LCS 410-184122/2-A**  
**Matrix: Solid**  
**Analysis Batch: 184470**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184122**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (2C)	167	122		ug/Kg		73	68 - 121
PCB-1260 (2C)	168	150		ug/Kg		89	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	124		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	92		45 - 143
Tetrachloro-m-xylene (1C)	108		53 - 140
Tetrachloro-m-xylene (2C)	89		53 - 140

## Method: 8151A - Herbicides (GC)

**Lab Sample ID: MB 410-184800/1-A**  
**Matrix: Solid**  
**Analysis Batch: 185345**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 184800**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/21/21 21:04	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/21/21 21:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	95		26 - 136	10/20/21 00:20	10/21/21 21:04	1
2,4-Dichlorophenylacetic acid (Surr) (2C)	82		26 - 136	10/20/21 00:20	10/21/21 21:04	1

# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 8151A - Herbicides (GC) (Continued)

**Lab Sample ID: LCS 410-184800/2-A**  
**Matrix: Solid**  
**Analysis Batch: 185345**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 184800**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec. Limits	
Silvex (2,4,5-TP) (2C)	0.0250	0.0297		mg/L		119	58 - 148		
2,4-D (1C)	0.0250	0.0237	J	mg/L		95	42 - 147		
		<b>LCS LCS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
2,4-Dichlorophenylacetic acid (Surr) (1C)	97		26 - 136						
2,4-Dichlorophenylacetic acid (Surr) (2C)	84		26 - 136						

**Lab Sample ID: LCSD 410-184800/3-A**  
**Matrix: Solid**  
**Analysis Batch: 185345**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 184800**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Silvex (2,4,5-TP) (2C)	0.0250	0.0278		mg/L		111	58 - 148	7	30
2,4-D (1C)	0.0250	0.0222	J	mg/L		89	42 - 147	7	30
		<b>LCSD LCSD</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
2,4-Dichlorophenylacetic acid (Surr) (1C)	89		26 - 136						
2,4-Dichlorophenylacetic acid (Surr) (2C)	76		26 - 136						

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 410-192546/1-A**  
**Matrix: Solid**  
**Analysis Batch: 193090**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 192546**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		11/09/21 11:21	11/10/21 10:41	1

**Lab Sample ID: LCS 410-192546/2-A**  
**Matrix: Solid**  
**Analysis Batch: 193090**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 192546**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec. Limits
Lead	5.00	5.33		mg/Kg		107	80 - 120	

**Lab Sample ID: LCSD 410-192546/3-A**  
**Matrix: Solid**  
**Analysis Batch: 193090**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 192546**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Lead	5.00	5.25		mg/Kg		105	80 - 120	2	20

# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: MB 410-192756/1-A**  
**Matrix: Solid**  
**Analysis Batch: 195357**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 192756**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		11/09/21 19:12	11/16/21 11:54	1

**Lab Sample ID: LCS 410-192756/2-A**  
**Matrix: Solid**  
**Analysis Batch: 195357**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 192756**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	5.12		mg/Kg		102	80 - 120

**Lab Sample ID: MB 410-183779/1-A**  
**Matrix: Solid**  
**Analysis Batch: 184654**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183779**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 14:50	1
Barium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:50	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:50	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 14:50	1
Lead	ND		0.15	0.071	mg/L		10/18/21 04:53	10/19/21 14:50	1
Selenium	ND		0.50	0.16	mg/L		10/18/21 04:53	10/19/21 14:50	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 14:50	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 14:50	1
Zinc	ND		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 14:50	1
Nickel	ND		0.10	0.021	mg/L		10/18/21 04:53	10/19/21 14:50	1

**Lab Sample ID: LCS 410-183779/2-A**  
**Matrix: Solid**  
**Analysis Batch: 184654**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183779**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.53	^3+	mg/L		111	80 - 120
Barium	5.00	5.04		mg/L		101	80 - 120
Cadmium	0.500	0.518		mg/L		104	80 - 120
Chromium	5.00	5.15		mg/L		103	80 - 120
Lead	0.500	0.530		mg/L		106	80 - 120
Selenium	1.00	1.25	*+	mg/L		125	80 - 120
Silver	0.499	0.534		mg/L		107	80 - 120
Copper	5.00	5.14		mg/L		103	80 - 120
Zinc	5.00	5.12		mg/L		102	80 - 120
Nickel	5.00	5.22		mg/L		104	80 - 120

**Lab Sample ID: LCSD 410-183779/3-A**  
**Matrix: Solid**  
**Analysis Batch: 184654**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 183779**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.36	^3+	mg/L		107	80 - 120	3	20
Barium	5.00	4.98		mg/L		100	80 - 120	1	20
Cadmium	0.500	0.518		mg/L		104	80 - 120	0	20

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSD 410-183779/3-A  
Matrix: Solid  
Analysis Batch: 184654

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total Recoverable  
Prep Batch: 183779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	5.00	5.09		mg/L		102	80 - 120	1	20
Lead	0.500	0.489		mg/L		98	80 - 120	8	20
Selenium	1.00	1.10		mg/L		110	80 - 120	12	20
Silver	0.499	0.529		mg/L		106	80 - 120	1	20
Copper	5.00	5.12		mg/L		102	80 - 120	1	20
Zinc	5.00	5.09		mg/L		102	80 - 120	1	20
Nickel	5.00	5.20		mg/L		104	80 - 120	0	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-183781/1-A  
Matrix: Solid  
Analysis Batch: 184228

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 183781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:29	1

Lab Sample ID: LCS 410-183781/2-A  
Matrix: Solid  
Analysis Batch: 184228

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 183781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00100	0.000957		mg/L		96	80 - 118

Lab Sample ID: LCSD 410-183781/3-A  
Matrix: Solid  
Analysis Batch: 184228

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 183781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00100	0.000976		mg/L		98	80 - 118	2	20

## Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 410-184745/1  
Matrix: Solid  
Analysis Batch: 184745

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	1.4	mg/L			10/19/21 20:36	1

Lab Sample ID: LCS 410-184745/2  
Matrix: Solid  
Analysis Batch: 184745

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	34.4		mg/L		86	78 - 114

# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 1664B - HEM and SGT-HEM (Continued)

**Lab Sample ID: LCSD 410-184745/3**  
**Matrix: Solid**  
**Analysis Batch: 184745**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	35.0		mg/L		88	78 - 114	2	13

**Lab Sample ID: LB 410-183273/1-B**  
**Matrix: Solid**  
**Analysis Batch: 184745**

**Client Sample ID: Method Blank**  
**Prep Type: ASTM Leach**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.02	J B	5.3	1.5	mg/L			10/19/21 20:36	1

## Method: 2540B-2011 - Solids, Total

**Lab Sample ID: MB 410-183795/1**  
**Matrix: Solid**  
**Analysis Batch: 183795**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	ND		42	14	mg/L			10/18/21 06:25	1
Residue, Total	ND		42	14	mg/L			10/18/21 06:25	1

**Lab Sample ID: LCS 410-183795/2**  
**Matrix: Solid**  
**Analysis Batch: 183795**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Solids	200	199		mg/L		99	91 - 112
Residue, Total	200	199		mg/L		99	91 - 112

**Lab Sample ID: LCSD 410-183795/3**  
**Matrix: Solid**  
**Analysis Batch: 183795**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Solids	200	199		mg/L		99	91 - 112	0	3
Residue, Total	200	199		mg/L		99	91 - 112	0	3

## Method: 2540G-2011 - Total, Fixed, and Volatile Solids

**Lab Sample ID: LCS 410-182808/1**  
**Matrix: Solid**  
**Analysis Batch: 182808**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Solids	10.5	10.6		%		101	94 - 108

**Lab Sample ID: 410-58999-2 DU**  
**Matrix: Solid**  
**Analysis Batch: 182808**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	89		87.2		%		2	5

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 2540G-2011 - Total, Fixed, and Volatile Solids (Continued)

**Lab Sample ID: 410-58999-2 DU**  
**Matrix: Solid**  
**Analysis Batch: 182808**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU	DU	Unit	D	RPD	RPD
			Result	Qualifier				Limit
Total Volatile Solids	2.2		2.76	F3	%		24	5
Percent Solids	89	!	87.2		%		2	5

**Lab Sample ID: 410-58999-3 DU**  
**Matrix: Solid**  
**Analysis Batch: 182808**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU	DU	Unit	D	RPD	RPD
			Result	Qualifier				Limit
Total Solids	14		14.3		%		1	5
Total Volatile Solids	97		97.9		%		1	5
Percent Solids	14	!	14.3		%		1	5

## Method: 410.4 - COD

**Lab Sample ID: MB 410-184548/4**  
**Matrix: Solid**  
**Analysis Batch: 184548**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chemical Oxygen Demand	ND		75	25	mg/L			10/19/21 12:33	1

**Lab Sample ID: LCS 410-184548/5**  
**Matrix: Solid**  
**Analysis Batch: 184548**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Chemical Oxygen Demand	500	515		mg/L		103	94 - 110

**Lab Sample ID: 410-58999-9 MS**  
**Matrix: Solid**  
**Analysis Batch: 184548**

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**  
**Prep Type: ASTM Leach**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Chemical Oxygen Demand	35	J!	400	453		mg/L		104	94 - 110

**Lab Sample ID: 410-58999-9 DU**  
**Matrix: Solid**  
**Analysis Batch: 184548**

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**  
**Prep Type: ASTM Leach**

Analyte	Sample Result	Sample Qualifier	DU	DU	Unit	D	RPD	RPD
			Result	Qualifier				Limit
Chemical Oxygen Demand	35	J!	37.9	J	mg/L		8	9

## Method: 9012 - Cyanide, Reactive

**Lab Sample ID: MB 410-183171/1-A**  
**Matrix: Solid**  
**Analysis Batch: 183419**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Reactive	ND		60	20	mg/Kg		10/15/21 07:55	10/15/21 14:26	1

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# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 9012 - Cyanide, Reactive (Continued)

**Lab Sample ID: LCS 410-183171/2-A**  
**Matrix: Solid**  
**Analysis Batch: 183419**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Reactive	1000	ND	*-	mg/Kg		-0.5	0 - 5.14

**Lab Sample ID: 410-58999-2 MS**  
**Matrix: Solid**  
**Analysis Batch: 183419**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Reactive	ND	*-	992	ND		mg/Kg		0	0 - 44

**Lab Sample ID: 410-58999-2 MSD**  
**Matrix: Solid**  
**Analysis Batch: 183419**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cyanide, Reactive	ND	*-	986	ND		mg/Kg		0	0 - 44	NC	11

## Method: 9034 - Sulfide, Reactive

**Lab Sample ID: MB 410-183171/1-A**  
**Matrix: Solid**  
**Analysis Batch: 183334**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		160	54	mg/Kg		10/15/21 07:55	10/15/21 12:20	1

**Lab Sample ID: LCS 410-183171/24-A**  
**Matrix: Solid**  
**Analysis Batch: 183334**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfide, Reactive	539	379		mg/Kg		70	56 - 104

**Lab Sample ID: 410-58999-2 MS**  
**Matrix: Solid**  
**Analysis Batch: 183334**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sulfide, Reactive	ND	! FL	535	269	FL	mg/Kg		50	56 - 104

**Lab Sample ID: 410-58999-2 MSD**  
**Matrix: Solid**  
**Analysis Batch: 183334**

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**  
**Prep Type: Total/NA**  
**Prep Batch: 183171**  
**%Rec.**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sulfide, Reactive	ND	! FL	532	228	FL	mg/Kg		43	56 - 104	16	52

# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 9045D - pH

Lab Sample ID: LCS 410-183472/1-A  
Matrix: Solid  
Analysis Batch: 183490

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		S.U.		100	95 - 105

Lab Sample ID: 410-58999-1 DU  
Matrix: Solid  
Analysis Batch: 183490

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5		7.4		S.U.		0.9	3
Corrosivity	No		No		NONE		NaN	3

## Method: 9071B - HEM and SGT-HEM

Lab Sample ID: MB 410-184235/1-A  
Matrix: Solid  
Analysis Batch: 185016

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 184235

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		600	200	mg/Kg		10/18/21 23:57	10/20/21 10:30	1

Lab Sample ID: LCS 410-184235/2-A  
Matrix: Solid  
Analysis Batch: 185016

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 184235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	4980	4860		mg/Kg		98	91 - 111

Lab Sample ID: 410-58999-1 MS  
Matrix: Solid  
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12  
Prep Type: Total/NA  
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	3600	FH	6490	11400	FH	mg/Kg	☼	119	91 - 111

Lab Sample ID: 410-58999-1 MSD  
Matrix: Solid  
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12  
Prep Type: Total/NA  
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	3600	FH	6290	11200	FH	mg/Kg	☼	121	91 - 111	1	26

Lab Sample ID: 410-58999-1 DU  
Matrix: Solid  
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12  
Prep Type: Total/NA  
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
HEM (Oil & Grease)	3600	FH	3930		mg/Kg	☼	9	20



# QC Sample Results

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Method: 9095B - Paint Filter

Lab Sample ID: MB 410-184206/1  
Matrix: Solid  
Analysis Batch: 184206

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1

## Method: EPA 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 410-189848/17  
Matrix: Solid  
Analysis Batch: 189848

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.10	0.050	mg/L			11/02/21 10:40	1

Lab Sample ID: LCS 410-189848/15  
Matrix: Solid  
Analysis Batch: 189848

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	3.00	2.92		mg/L		97	90 - 110

Lab Sample ID: LCSD 410-189848/16  
Matrix: Solid  
Analysis Batch: 189848

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	3.00	2.97		mg/L		99	90 - 110	2	15

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## GC/MS VOA

### Prep Batch: 182777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	5030C	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	5030C	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	5030C	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	5030C	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	5030C	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	5030C	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	5030C	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	5030C	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	5030C	

### Leach Batch: 183239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	

### Analysis Batch: 183894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	8260C	182777
MB 410-183894/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-183894/4	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-183894/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

### Analysis Batch: 184674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8260C	183239
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8260C	183239
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8260C	183239
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8260C	183239
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8260C	183239
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8260C	183239
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8260C	183239
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8260C	183239
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8260C	183239
MB 410-184674/6	Method Blank	Total/NA	Solid	8260C	
LCS 410-184674/4	Lab Control Sample	Total/NA	Solid	8260C	

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## GC/MS VOA (Continued)

### Analysis Batch: 184674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8260C	183239

## GC/MS Semi VOA

### Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

### Prep Batch: 184616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3510C	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3510C	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3510C	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3510C	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3510C	183271
MB 410-184616/14-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-184616/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-184616/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

### Analysis Batch: 184885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8270D	184616
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8270D	184616
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8270D	184616
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8270D	184616
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8270D	184616
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8270D	184616
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8270D	184616
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8270D	184616
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8270D	184616
MB 410-184616/14-A	Method Blank	Total/NA	Solid	8270D	184616
LCS 410-184616/2-A	Lab Control Sample	Total/NA	Solid	8270D	184616
LCSD 410-184616/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	184616

## GC Semi VOA

### Prep Batch: 183168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	3546	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	3546	

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## GC Semi VOA (Continued)

### Prep Batch: 183168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	3546	
MB 410-183168/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-183168/2-A	Lab Control Sample	Total/NA	Solid	3546	

### Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

### Analysis Batch: 183531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	8082A	183168
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	8082A	183168
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	8082A	183168
MB 410-183168/1-A	Method Blank	Total/NA	Solid	8082A	183168
LCS 410-183168/2-A	Lab Control Sample	Total/NA	Solid	8082A	183168

### Prep Batch: 183581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	3546	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	3546	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	3546	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	3546	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	3546	
MB 410-183581/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-183581/2-A	Lab Control Sample	Total/NA	Solid	3546	

### Analysis Batch: 183928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	8082A	183581
MB 410-183581/1-A	Method Blank	Total/NA	Solid	8082A	183581
LCS 410-183581/2-A	Lab Control Sample	Total/NA	Solid	8082A	183581

### Prep Batch: 184122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	3546	
MB 410-184122/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-184122/2-A	Lab Control Sample	Total/NA	Solid	3546	

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## GC Semi VOA

### Analysis Batch: 184470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	8082A	184122
MB 410-184122/1-A	Method Blank	Total/NA	Solid	8082A	184122
LCS 410-184122/2-A	Lab Control Sample	Total/NA	Solid	8082A	184122

### Prep Batch: 184649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3510C	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3510C	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3510C	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3510C	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3510C	183271
MB 410-184649/14-A	Method Blank	Total/NA	Solid	3510C	
MB 410-184649/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-184649/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCS 410-184649/2-A - RA	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-184649/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	Total/NA	Solid	3510C	

### Prep Batch: 184800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8151A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8151A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8151A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8151A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8151A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8151A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8151A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8151A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8151A	183271
MB 410-184800/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 410-184800/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 410-184800/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

### Analysis Batch: 184818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8081B	184649
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8081B	184649
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8081B	184649
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8081B	184649
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8081B	184649
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8081B	184649
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8081B	184649
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8081B	184649
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8081B	184649
MB 410-184649/14-A	Method Blank	Total/NA	Solid	8081B	184649
MB 410-184649/1-A	Method Blank	Total/NA	Solid	8081B	184649
LCS 410-184649/2-A	Lab Control Sample	Total/NA	Solid	8081B	184649

Euofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## GC Semi VOA (Continued)

### Analysis Batch: 184818 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-184649/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	184649

### Analysis Batch: 185014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-184649/2-A - RA	Lab Control Sample	Total/NA	Solid	8081B	184649
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	Total/NA	Solid	8081B	184649

### Analysis Batch: 185345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8151A	184800
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8151A	184800
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8151A	184800
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8151A	184800
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8151A	184800
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8151A	184800
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8151A	184800
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8151A	184800
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8151A	184800
MB 410-184800/1-A	Method Blank	Total/NA	Solid	8151A	184800
LCS 410-184800/2-A	Lab Control Sample	Total/NA	Solid	8151A	184800
LCSD 410-184800/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	184800

## Metals

### Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

### Prep Batch: 183779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3005A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3005A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3005A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3005A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3005A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3005A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3005A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3005A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3005A	183271
MB 410-183779/1-A	Method Blank	Total Recoverable	Solid	3005A	
LCS 410-183779/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	
LCSD 410-183779/3-A	Lab Control Sample Dup	Total Recoverable	Solid	3005A	



# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Metals

### Prep Batch: 183781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	7470A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	7470A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	7470A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	7470A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	7470A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	7470A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	7470A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	7470A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	7470A	183271
MB 410-183781/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 410-183781/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 410-183781/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	

### Analysis Batch: 184228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	7470A	183781
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	7470A	183781
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	7470A	183781
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	7470A	183781
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	7470A	183781
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	7470A	183781
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	7470A	183781
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	7470A	183781
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	7470A	183781
MB 410-183781/1-A	Method Blank	Total/NA	Solid	7470A	183781
LCS 410-183781/2-A	Lab Control Sample	Total/NA	Solid	7470A	183781
LCSD 410-183781/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	183781

### Analysis Batch: 184654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	6010C	183779
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	6010C	183779
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	6010C	183779
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	6010C	183779
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	6010C	183779
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	6010C	183779
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	6010C	183779
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	6010C	183779
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	6010C	183779
MB 410-183779/1-A	Method Blank	Total Recoverable	Solid	6010C	183779
LCS 410-183779/2-A	Lab Control Sample	Total Recoverable	Solid	6010C	183779
LCSD 410-183779/3-A	Lab Control Sample Dup	Total Recoverable	Solid	6010C	183779

### Prep Batch: 192546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	3050B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	3050B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	3050B	
MB 410-192546/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-192546/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 410-192546/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Metals

### Prep Batch: 192756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	3050B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	3050B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	3050B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	3050B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	3050B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	3050B	
MB 410-192756/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-192756/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 193090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	6010C	192546
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	6010C	192546
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	6010C	192546
MB 410-192546/1-A	Method Blank	Total/NA	Solid	6010C	192546
LCS 410-192546/2-A	Lab Control Sample	Total/NA	Solid	6010C	192546
LCSD 410-192546/3-A	Lab Control Sample Dup	Total/NA	Solid	6010C	192546

### Analysis Batch: 195357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	6010C	192756
MB 410-192756/1-A	Method Blank	Total/NA	Solid	6010C	192756
LCS 410-192756/2-A	Lab Control Sample	Total/NA	Solid	6010C	192756

## General Chemistry

### Analysis Batch: 182800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	Moisture	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	Moisture	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	Moisture	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	Moisture	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	Moisture	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	Moisture	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	Moisture	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	Moisture	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	Moisture	

### Analysis Batch: 182808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	2540G-2011	

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# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## General Chemistry (Continued)

### Analysis Batch: 182808 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	2540G-2011	
LCS 410-182808/1	Lab Control Sample	Total/NA	Solid	2540G-2011	
410-58999-2 DU	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-3 DU	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	2540G-2011	

### Prep Batch: 183171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	7.3.3	
MB 410-183171/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 410-183171/24-A	Lab Control Sample	Total/NA	Solid	7.3.3	
LCS 410-183171/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	

### Leach Batch: 183273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	
LB 410-183273/1-B	Method Blank	ASTM Leach	Solid	D3987-85	
410-58999-9 MS	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9 DU	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	

### Analysis Batch: 183334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9034	183171
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9034	183171
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9034	183171
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9034	183171
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9034	183171
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9034	183171
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9034	183171

Euofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## General Chemistry (Continued)

### Analysis Batch: 183334 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9034	183171
MB 410-183171/1-A	Method Blank	Total/NA	Solid	9034	183171
LCS 410-183171/24-A	Lab Control Sample	Total/NA	Solid	9034	183171
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171

### Analysis Batch: 183419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9012	183171
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9012	183171
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9012	183171
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9012	183171
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9012	183171
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9012	183171
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9012	183171
MB 410-183171/1-A	Method Blank	Total/NA	Solid	9012	183171
LCS 410-183171/2-A	Lab Control Sample	Total/NA	Solid	9012	183171
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171

### Leach Batch: 183472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	DI Leach	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Soluble	Solid	DI Leach	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Soluble	Solid	DI Leach	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Soluble	Solid	DI Leach	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Soluble	Solid	DI Leach	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Soluble	Solid	DI Leach	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Soluble	Solid	DI Leach	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Soluble	Solid	DI Leach	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Soluble	Solid	DI Leach	
LCS 410-183472/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	DI Leach	

### Analysis Batch: 183490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	9045D	183472
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Soluble	Solid	9045D	183472
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Soluble	Solid	9045D	183472
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Soluble	Solid	9045D	183472
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Soluble	Solid	9045D	183472
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Soluble	Solid	9045D	183472
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Soluble	Solid	9045D	183472
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Soluble	Solid	9045D	183472
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Soluble	Solid	9045D	183472
LCS 410-183472/1-A	Lab Control Sample	Soluble	Solid	9045D	183472
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	9045D	183472

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## General Chemistry

### Analysis Batch: 183795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
MB 410-183795/1	Method Blank	Total/NA	Solid	2540B-2011	
LCS 410-183795/2	Lab Control Sample	Total/NA	Solid	2540B-2011	
LCSD 410-183795/3	Lab Control Sample Dup	Total/NA	Solid	2540B-2011	

### Analysis Batch: 184206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9095B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9095B	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9095B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9095B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9095B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9095B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9095B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9095B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9095B	
MB 410-184206/1	Method Blank	Total/NA	Solid	9095B	

### Analysis Batch: 184207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	261.21	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	261.21	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	261.21	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	261.21	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	261.21	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	261.21	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	261.21	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	261.21	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	261.21	

### Prep Batch: 184235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9071B	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9071B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9071B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9071B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9071B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9071B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9071B	
MB 410-184235/1-A	Method Blank	Total/NA	Solid	9071B	
LCS 410-184235/2-A	Lab Control Sample	Total/NA	Solid	9071B	

Euofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## General Chemistry (Continued)

### Prep Batch: 184235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-1 MSD	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	

### Analysis Batch: 184548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273
MB 410-184548/4	Method Blank	Total/NA	Solid	410.4	
LCS 410-184548/5	Lab Control Sample	Total/NA	Solid	410.4	
410-58999-9 MS	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-9 DU	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273

### Analysis Batch: 184745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	1664B	183273
LB 410-183273/1-B	Method Blank	ASTM Leach	Solid	1664B	183273
MB 410-184745/1	Method Blank	Total/NA	Solid	1664B	
LCS 410-184745/2	Lab Control Sample	Total/NA	Solid	1664B	
LCSD 410-184745/3	Lab Control Sample Dup	Total/NA	Solid	1664B	

### Analysis Batch: 185016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9071B	184235
MB 410-184235/1-A	Method Blank	Total/NA	Solid	9071B	184235
LCS 410-184235/2-A	Lab Control Sample	Total/NA	Solid	9071B	184235
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-1 MSD	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235

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# QC Association Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## General Chemistry (Continued)

### Analysis Batch: 185016 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235

### Leach Batch: 186751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	

### Analysis Batch: 189848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
MB 410-189848/17	Method Blank	Total/NA	Solid	EPA 350.1	
LCS 410-189848/15	Lab Control Sample	Total/NA	Solid	EPA 350.1	
LCSD 410-189848/16	Lab Control Sample Dup	Total/NA	Solid	EPA 350.1	

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

**Date Collected: 10/12/21 10:00**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 03:08	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 14:53	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:30	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/21/21 23:25	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 14:59	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:35	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:47	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 15:00	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 10:55	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

**Date Collected: 10/12/21 10:00**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 77.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 14:27	USEJ	ELLE
Total/NA	Prep	3546			184122	10/18/21 18:09	QQ3P	ELLE
Total/NA	Analysis	8082A		1	184470	10/19/21 08:52	JC94	ELLE

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12**

**Lab Sample ID: 410-58999-1**

**Date Collected: 10/12/21 10:00**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 77.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:26	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

**Date Collected: 10/12/21 10:05**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 03:54	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 15:21	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:41	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 00:00	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:08	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:37	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:49	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:32	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:01	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12**

**Lab Sample ID: 410-58999-2**

**Date Collected: 10/12/21 10:05**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 14:48	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:17	E9VJ	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:34	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

**Date Collected: 10/12/21 10:07**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 04:17	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 15:50	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:53	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 00:36	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:11	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:39	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:51	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:39	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

**Date Collected: 10/12/21 10:07**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:03	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12**

**Lab Sample ID: 410-58999-3**

**Date Collected: 10/12/21 10:07**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 88.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:08	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:28	E9VJ	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 10:53	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

**Date Collected: 10/12/21 10:11**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 04:40	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 16:19	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:04	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 01:11	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:30	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:47	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

**Date Collected: 10/12/21 10:11**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:52	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:41	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:05	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12**

**Lab Sample ID: 410-58999-4**

**Date Collected: 10/12/21 10:11**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:29	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:38	E9VJ	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:18	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

**Date Collected: 10/12/21 10:12**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:03	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 16:48	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:15	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 01:47	UAMZ	ELLE

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

**Date Collected: 10/12/21 10:12**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:15	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:41	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:53	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:42	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:07	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12**

**Lab Sample ID: 410-58999-5**

**Date Collected: 10/12/21 10:12**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:50	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:03	JC94	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:38	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

**Date Collected: 10/12/21 10:16**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:26	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 17:17	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:26	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 02:22	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:18	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:43	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:54	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:43	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:09	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

**Date Collected: 10/12/21 10:16**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:11	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:14	JC94	ELLE

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12**

**Lab Sample ID: 410-58999-6**

**Date Collected: 10/12/21 10:16**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:30	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

**Date Collected: 10/12/21 10:30**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:49	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 17:46	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:37	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 02:57	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:27	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:45	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:48	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:45	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:18	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12**

**Lab Sample ID: 410-58999-7**

**Date Collected: 10/12/21 10:30**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 81.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:31	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:24	JC94	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 11:03	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

**Date Collected: 10/12/21 10:36**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 06:12	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 18:15	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:49	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 03:33	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:33	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:54	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:52	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:46	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

**Date Collected: 10/12/21 10:36**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:20	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12**

**Lab Sample ID: 410-58999-8**

**Date Collected: 10/12/21 10:36**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 82.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:52	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:35	JC94	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:22	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

**Date Collected: 10/12/21 10:38**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 06:35	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 18:44	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 11:00	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 04:08	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:52	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 19:04	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE



# Lab Chronicle

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

**Date Collected: 10/12/21 10:38**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:45	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:48	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 12:49	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

**Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12**

**Lab Sample ID: 410-58999-9**

**Date Collected: 10/12/21 10:38**

**Matrix: Solid**

**Date Received: 10/13/21 18:10**

**Percent Solids: 82.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 17:13	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:45	JC94	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 11:07	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



# Accreditation/Certification Summary

Client: NorthStar Contracting Group, Inc.  
 Project/Site: NorthStar Sampling

Job ID: 410-58999-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B		Solid	HEM (Oil & Grease)
2540B-2011		Solid	Residue, Total
2540B-2011		Solid	Total Solids
2540G-2011		Solid	Percent Solids
261.21		Solid	Ignitable to Air
261.21		Solid	Ignitable to Flame
261.21		Solid	Ignitable to Friction
261.21		Solid	Ignitable to Water
410.4		Solid	Chemical Oxygen Demand
9034	7.3.3	Solid	Sulfide, Reactive
9045D		Solid	Corrosivity
EPA 350.1		Solid	Ammonia as N
Moisture		Solid	Percent Moisture



# Method Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
8151A	Herbicides (GC)	SW846	ELLE
6010C	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
1664B	HEM and SGT-HEM	1664B	ELLE
2540B-2011	Solids, Total	SM	ELLE
2540G-2011	Total, Fixed, and Volatile Solids	SM	ELLE
261.21	Ignitability	40CFR261	ELLE
410.4	COD	MCAWW	ELLE
9012	Cyanide, Reactive	SW846	ELLE
9034	Sulfide, Reactive	SW846	ELLE
9045D	pH	SW846	ELLE
9071B	HEM and SGT-HEM	SW846	ELLE
9095B	Paint Filter	SW846	ELLE
EPA 350.1	Nitrogen, Ammonia	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
1311	TCLP Extraction	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7.3.3	Cyanide, Reactive	SW846	ELLE
7.3.4	Sulfide, Reactive	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
8151A	Extraction (Herbicides)	SW846	ELLE
9071B	Preparation, HEM and SGT-HEM	SW846	ELLE
D3987-85	ASTM Leaching Procedure	ASTM	ELLE
DI Leach	Deionized Water Leaching Procedure	ASTM	ELLE

#### Protocol References:

1664B = EPA-821-98-002

40CFR261 = 40 CFR Part 261

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

Client: NorthStar Contracting Group, Inc.  
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Solid	10/12/21 10:00	10/13/21 18:10
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Solid	10/12/21 10:05	10/13/21 18:10
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Solid	10/12/21 10:07	10/13/21 18:10
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Solid	10/12/21 10:11	10/13/21 18:10
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Solid	10/12/21 10:12	10/13/21 18:10
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Solid	10/12/21 10:16	10/13/21 18:10
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Solid	10/12/21 10:30	10/13/21 18:10
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Solid	10/12/21 10:36	10/13/21 18:10
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Solid	10/12/21 10:38	10/13/21 18:10

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QC

CHAIN OF CUSTODY  
Page 1 of 1



410-58999 Chain of Custody

MATRIX CODES

702 Electronic Drive Phone: 215-355-3900  
Horsham, PA 19044-0962 Fax 215-355-7231

Client/Acct. No. NorthStar Contracting Group, Inc  
Address 3144 Passyunk Ave  
Philadelphia PA, 19145

City/State/Zip 440-228-1524  
Phone/Fax  
Client Contact rarmstrong@northstar.com

Bill to/Report to (if different)

Sampling Site Address (if different) Include State

P.O. No. PWSID #

Quote #

e-mail:

# Ascorbic/HCL Vials # HCl Vials

# Na2S2O3

# Na OH/Zn acetate pH

# HNO3 pH

# H2SO4 pH

# NaOH pH

# Unpreserved

# HCl # NH4Cl # MeOH

# DI Water

- DW: DRINKING WATER
- GW: GROUND WATER
- WW: WASTEWATER
- SO: SOIL
- SL: SLUDGE
- OIL: OIL
- SOL: NON SOIL SOLID
- MI: MISCELLANEOUS
- X: OTHER

PROJECT

Collection

Number of Containers

FIELD ID

Date	Military Time	GRAB	COMP	Matrix Code	Total	Number of Containers															
						H2SO4	HCl	Vials	HNO3	NaOH	ZnAc	UNPRE	BACT								
10/12/21	1000	X		SO	5																
10/12/21	1005	X		SO	5																
10/12/21	1007	X		SO	5																
10/12/21	1011	X		SO	5																
10/12/21	1012	X		SO	5																
10/12/21	1016	X		SO	5																
10/12/21	1030	X		SO	5																
10/12/21	1036	X		SO	5																
10/12/21	1038		X	SO	7																

ANALYSIS REQUESTED

Total Benzene  
See attached Table A  
Parameters

Field pH, Temp (°C),  
DO, Cl2, Cond. etc.

~~Use caution  
when working  
with these  
samples.~~

SAMPLED BY: (Name/Company)  
Josh Suboye / North Star

TAT:  STANDARD (10 DAY)  
or DUE DATE ASAP 1

Report Format:  Standard  NJ-RDD  SRP-RDD  
 Standard + QC  Forms  EDD

Field Parameters Analyzed By:  
Initials Date/Time:

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	DELIVERY: <input type="checkbox"/> EQC COURIER <input type="checkbox"/> CLIENT <input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER	Custody Seal Number
1. [Signature]	10.13.21	1225	1. [Signature]	10/13/21	1225		
2. [Signature]	10/13/21	1810	2. [Signature]			Rec'd Temp.: 1.3° COMMENTS: 2.3°	Initials: MR Ice (Y) N Location: _____
3. [Signature]			3. [Signature]				
4. [Signature]			4. [Signature]				
5. [Signature]			5. [Signature]	10/13/21	1810		

Hazardous: yes / no