Environmental & Safety Solutions, Inc.

CLOSURE REQUEST REPORT

Ross Draw Unit #011

Eddy County, New Mexico

Incident Number:

NHMP1412241998

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing remedial actions completed in accordance with an approved Remediation Work Plan (RWP), associated with an inadvertent release of crude oil and produced water at the Ross Draw Unit #011 (Site). Based on the results of a Cultural Resources Survey Report (CRSR) provided by SWCA Environmental Consultants (SWCA) and soil laboratory analytical results, a formal decision was issued by the Bureau of Land Management (BLM) that no further remedial action is warranted to address the area associated with the subject inadvertent release.

SITE LOCATION AND BACKGROUND

The Site is located in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.022210°, -103.867013°) and is associated with oil and gas exploration and production operations on Federal Land managed by the BLM (**Figure 1** in **Appendix A**).

As documented in the RWP, failure of a 4-inch PCV transfer line caused 200 barrels (bbls) of crude oil and produced water to be released and migrate southwest approximately 0.6 miles through the pasture. The exact tract of released fluids is unknown, but a proposed flow path, henceforth addressed as the path of investigation (POI), was presented in the RWP according to the release description provided on the Form C-141 and an assumed path of least resistance based on regional topography. No fluids were recovered. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) dated March 29, 2014, and was subsequently assigned Incident Number NHMP1412241998.

An RWP was prepared, proposing delineation locations along the POI to assess the presence and/or absence of residual soil impacts. The delineation locations were subject to change based on the results of a cultural survey, which was scheduled in May of 2022. The RWP was received by the NMOCD on April 4, 2022, and denied on January 19, 2023, by Brittany Hall, for the following reason:

- No portion of this report discusses the delineation or characterization of incident #nHMP1412241998. The soil characterization and investigation described in Section 5.0 of this document should be completed prior to submitting a remediation plan for this incident number. The proposed sampling variance request of confirmation samples representative of 1,000 square feet is denied. The OCD will approve of confirmation samples representative of no more than 500 square feet. Note that this rejection is applicable to incident #NHMP1412241998 only. Approval/Rejection of all other incident numbers will be addressed under those respective incident numbers. 2RP-2286 closed. Please refer to incident #nHMP1412241998 for all future communication. Submit a complete report through the OCD permitting website by 4/21/2023.

Following the denial of the RWP, WPX met with Brittany Hall to reiterate delineation associated with nHMP1412241998 for would be conducted as proposed in the RWP and data provided in a subsequent report. Prior to initiating soil sampling activities, an extensive cultural survey was conducted at the Site as requested by the BLM. A CRSR authored by SWCA yielded positive, for a vast, sensitive cultural site(s) within the proposed release flow path area. Discussions between the BLM and SWCA shifted the path of investigation to avoid a possible cultural Site. The CRSR can be referenced in **Appendix B**.

It should be noted that since the subject release discovery, four additional inadvertent releases incidents were reported between April 21, 2017, and January 10, 2022, and were subsequently assigned Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755, respectively. Between October 6, 2023, and October 30, 2023, excavation activities were performed to address soil residual impacts associated with these Incident Numbers. Specifically, Incident Numbers nAB1728553778 and nAB1728551205 overlapped a northern section of the proposed path of investigation, located closest

to the release source. All laboratory analytical results for final confirmation excavation soil samples associated with Incident Numbers nAB1728553778 and nAB1728551205 were compliant with NMOCD Closure Criteria and/or reclamation standard. All laboratory analytical results and remediation summaries for Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755 were detailed in a subsequent Closure Request Report (CRR) that was submitted to the NMOCD on January 18, 2024, for Incident Number nAB1712951426 and on February 15, 2024, for incident number naPP2200728755, respectively.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As previously described in the approved RWP, the Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to ground water and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

All potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used to determine the site characterization are included in **Figure 1A**, **Figure 1B**, and **Figure 1C** in **Appendix A**. The referenced well record is provided as **Appendix C**.

Based on the results from the desktop review detailed in the approved RWP, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria†
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg
TPH-Gasoline Range Organics (GRO) + TPH-Diesel Range Organics (DRO)	EPA 8021B	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

†The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

DELINEATION SOIL SAMPLING ACTIVITIES

On October 30, 2023, Etech conducted delineation activities to assess the presence or absence of residual impacts along the path of investigation. Three boreholes (BH01 through BH03) were advanced via hand auger, which were driven by field screening soil samples for volatile organic hydrocarbons using a photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A minimum of

two soil samples were collected per sampling location, representing the highest observed field screening concentrations and the greatest depth. Field screening results and soil descriptions and soil descriptions are included on soil sampling logs shown in **Appendix D**. The delineation soil sample locations are shown in **Figure 2** in **Appendix A**. Photographic documentation of delineation activities is included in **Appendix E**.

Delineation soil samples were placed directly into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures, to Envirotech, Inc Laboratories (Envirotech) in Farmington New Mexico, for analysis of COCs.

DELINATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. Laboratory analytical results are summarized in **Table 1** included in **Appendix F**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix G**.

CLOSURE REQUEST

Based on the laboratory analytical results, observations from Site visits, results presented in the CRSR, and discussions with BLM about the cultural sensitivity of the Site, the following conclusions regarding the release are presented:

- Delineation soil samples collected along the path of investigation indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. Delineation soil sampling locations were selected based on the proximity of the POI, while avoiding the designated cultural site(s) buffer(s) designated by SWCA in coordination with the BLM.
- A section of the POI, located closest to the release source, was recently excavated to address two other inadvertent releases overlapping a portion of the Site. Following the removal of residually impacted soil, confirmation soil samples were collected from the excavation floor and sidewalls. Laboratory analytical results for all confirmation excavation soil samples were below the Site Closure Criteria and/or reclamation standard. Laboratory analytical results and remediation summaries may be referenced in the CRR submitted for Incident Numbers nAB1728551205, and nAPP2200728755 on February 24, 2024.
- Vegetation along the path of investigation appears to be consistent with the surrounding, natural vegetation density.

Based on the conclusions drawn above, WPX believes that NFA is equally protective to the environment, groundwater, and human health as it would be otherwise, for the following reasons:

- An archeological cultural survey yielded positive results for culturally significant sites that overlap a large portion of the POI. Per the CRSR, the status of the cultural site was recorded to be in good condition and up to 75 percent intact, containing an artifact assemblage exceeding 500 artifacts distributed on the ground surface across an area measuring approximately 95.14 feet by 196.85 feet. Due to the dispersed nature of the cultural site, any further disturbance in the release area and/or area surrounding the release would desecrate the site.
- Laboratory analytical results from the delineation of soil sampling locations, located east of the culturally significant sites, closest to the release source, were below the Site Closure Criteria and/or reclamation standard. As such, it appears that residual impacts are not present between the excavation associated with Incident Numbers nAB1728553778 and nAB1728551205 and the avoidance buffer. In coordination with BLM, no further delineation was conducted within or west of

the buffer surrounding an area of avoidance to minimize surface disturbance and protect cultural resources.

- As summarized on **Figure 1A** through **Figure 1C** in **Appendix A**, there are no sensitive receptors within proximity of the Site. Regional depth to groundwater is estimated to be greater than 100 feet bgs at the Site based on a recently advanced soil boring approximately 0.40 miles southeast from the Site. The remaining sensitive receptors listed in NMAC 19.15.29.12 are outside the specified buffers of the Site.

WPX and BLM believe that the current delineation sufficiently characterizes the Site and NFA is equally protective of human health and groundwater and more protective of the environment and the cultural resources it preserves. As such, WPX respectfully requests NMOCD approval of this CRR.

Correspondence with BLM, NMOCD and WPX is provided in **Appendix H**. Previous remediation activities and soil sample analytical results for the subject release can be referenced in the original RWP and a CRR summarizing recent corrective actions addressing other inadvertent releases in **Appendix I** and **Appendix J**, respectively.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or joseph@etechenv.com or Erick Herrera (432) 305-6416 or erick@etechenv.com.

Sincerely,
Etech Environmental and Safety Solutions, Inc.

Erick Herrera
Staff Geologist

Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

Appendix A: Figure 1: Site Map
Figure 1A: Site Characterization Map – Groundwater
Figure 1B: Site Characterization Map – Surficial Receptors
Figure 1C: Site Characterization Map – Subsurface Receptors
Figure 2: Delineation Soil Sample Locations
Appendix B: Cultural Resource Survey Report
Appendix C: Referenced Well Record
Appendix D: Lithologic Sampling Logs
Appendix E: Photographic Log
Appendix F: Tables

Appendix G: Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix H: BLM and NMOCD Correspondence

Appendix I: Approved Remediation Work Plan

Appendix J: Closure Request Report – Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

APPENDIX A

Figures

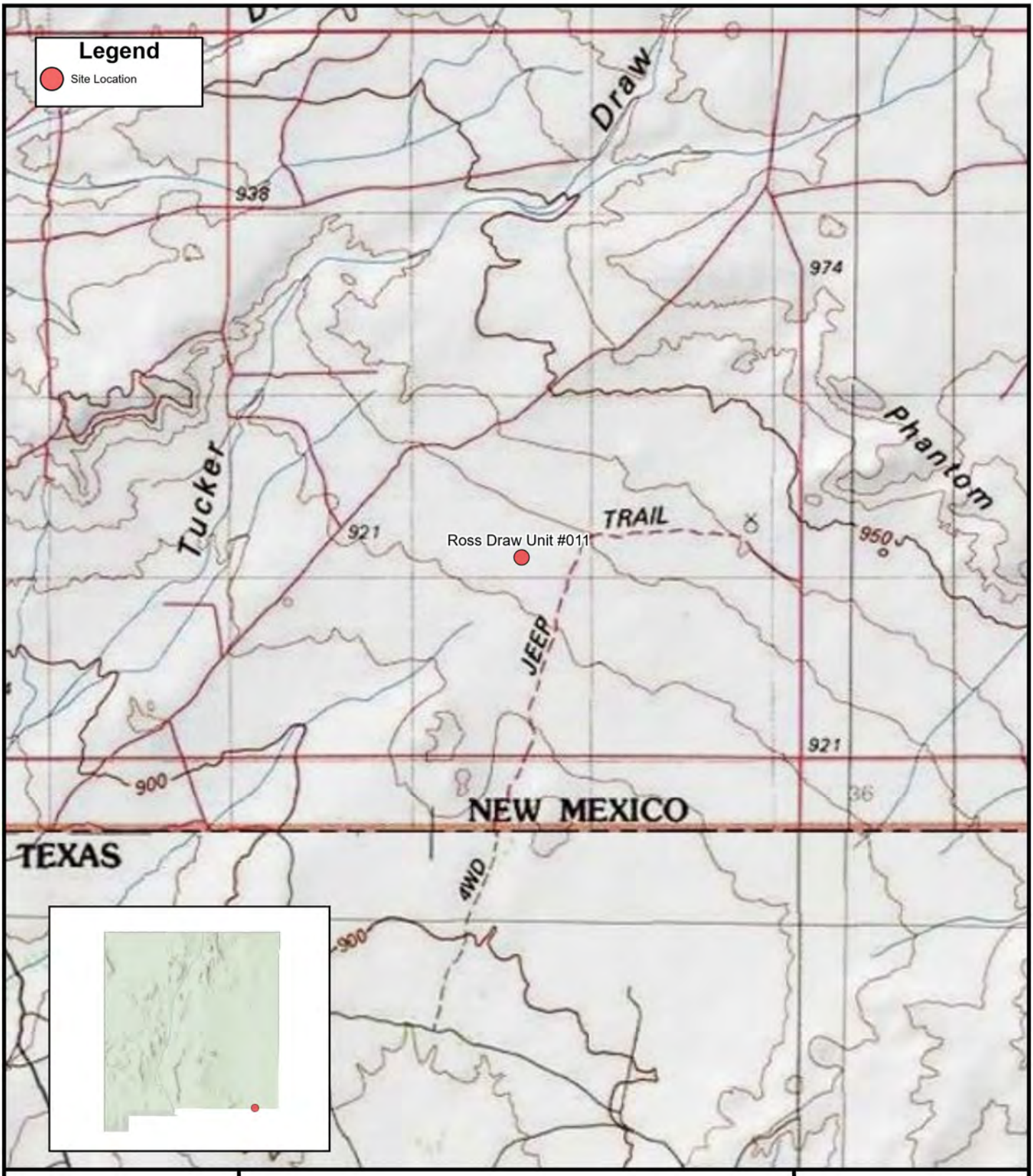


FIGURE 1

Site Location Map

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 2,500 5,000 Feet

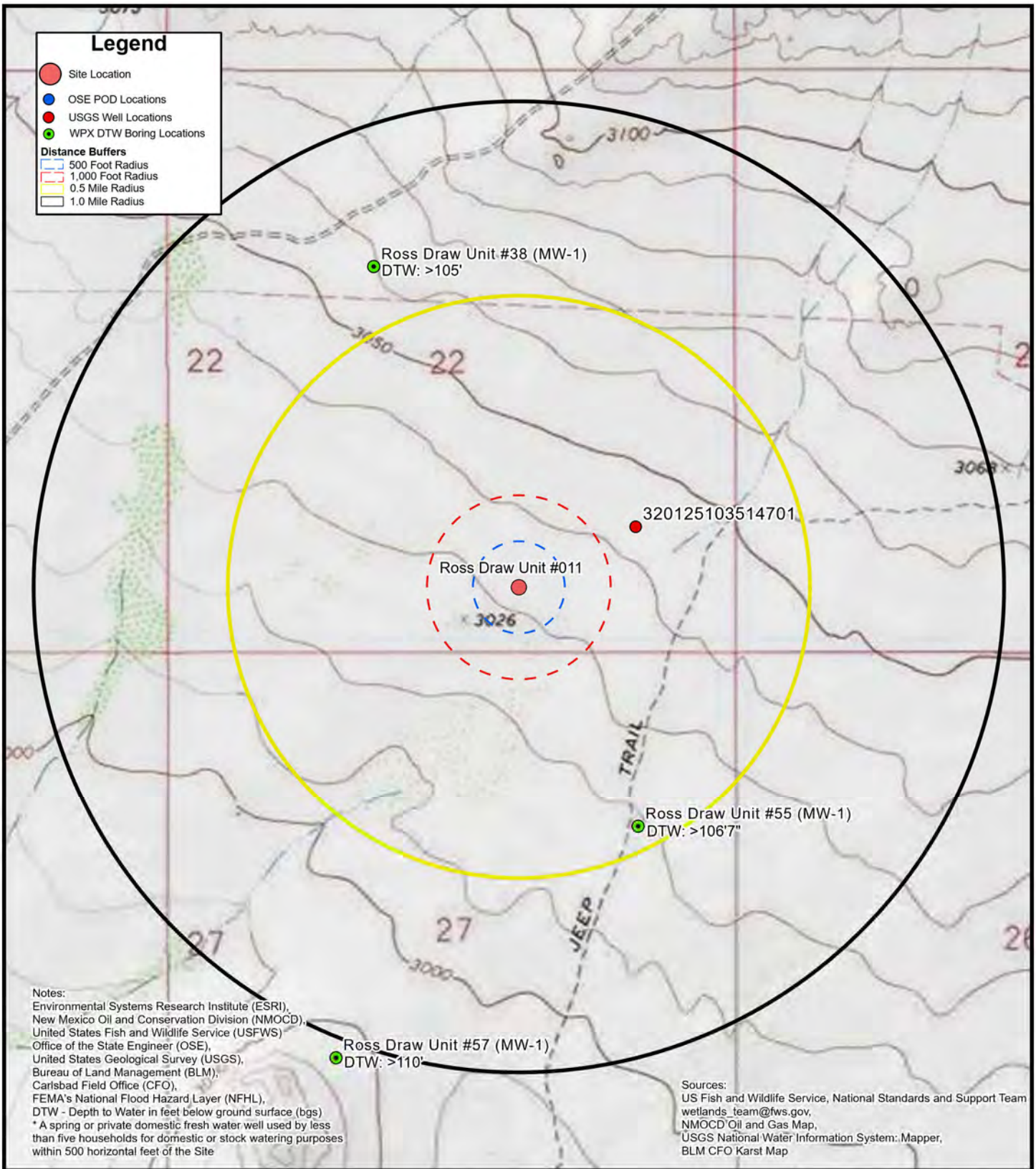
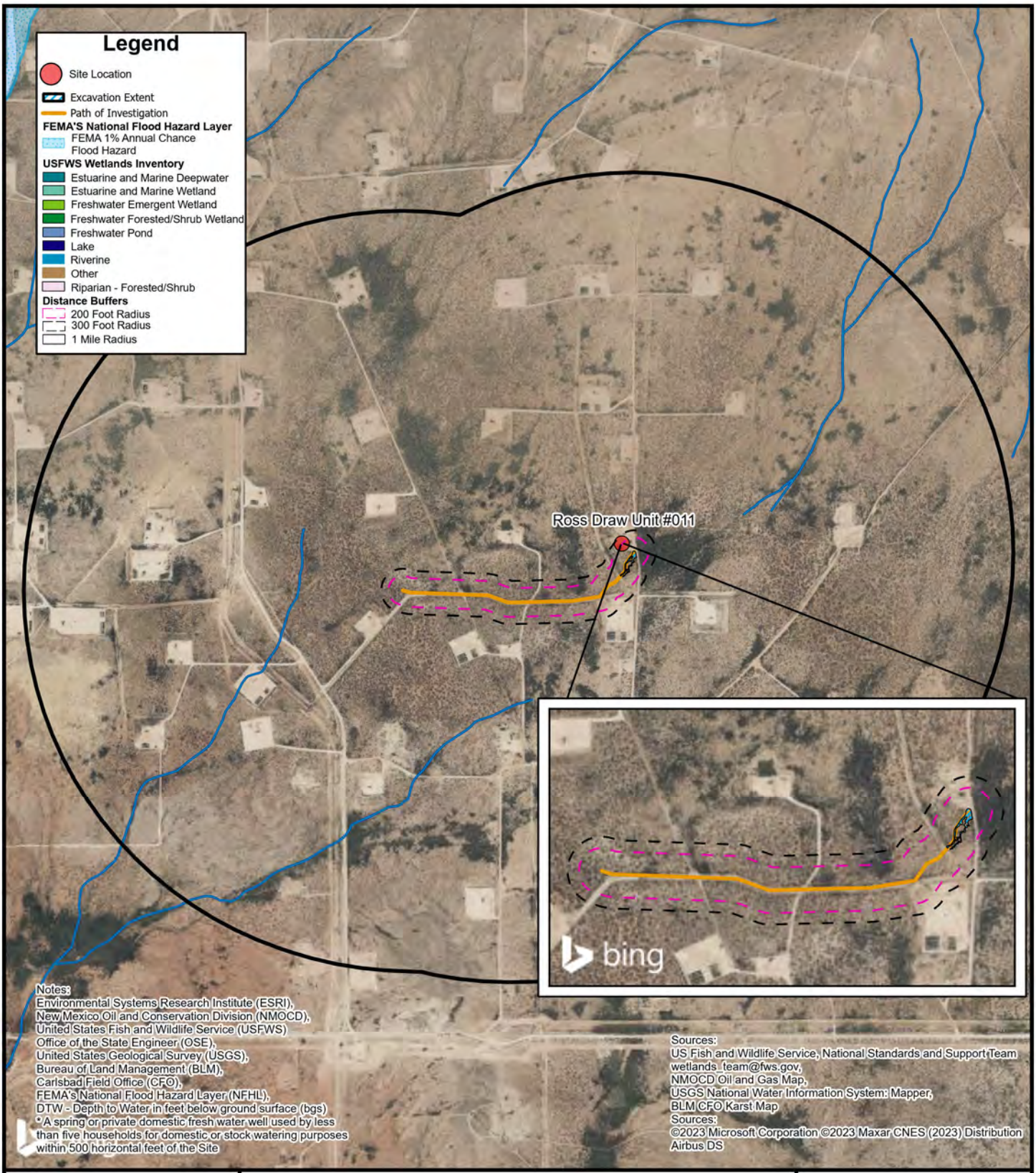


FIGURE 1A

Site Characterization Map

Groundwater

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico



eTECH

FIGURE 1B

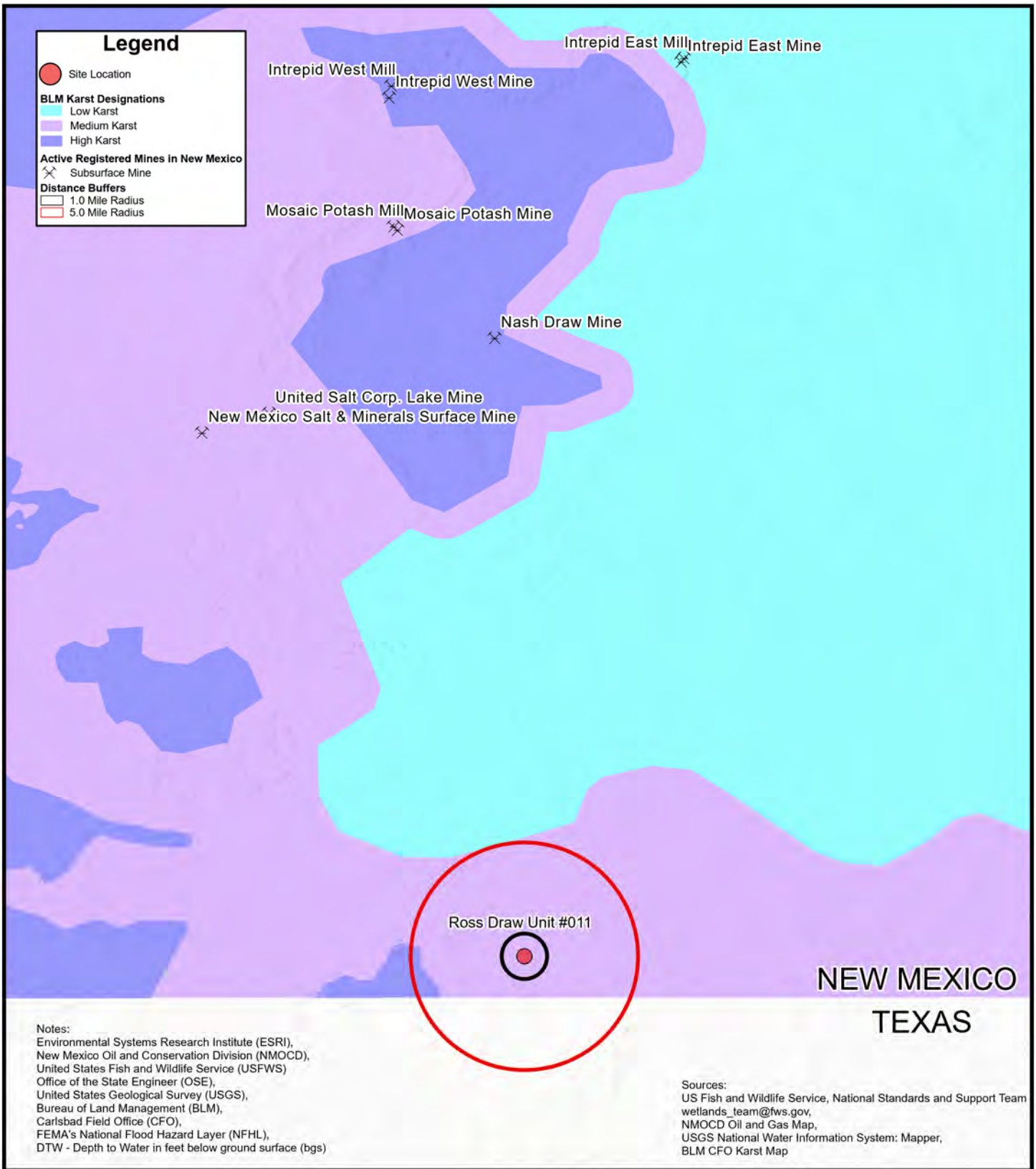
Site Characterization Map

Surficial Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 1,000 2,000 Feet



eTECH

FIGURE 1C

Site Characterization Map

Subsurface Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 12,500 25,000 Feet

eTECH

FIGURE 2

Delineation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit D Sec 22 T26S R30E
Eddy County, New Mexico

N

0 250 500 Feet

APPENDIX B

Cultural Resource Survey Report

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Report run on: Sep 01, 2023 10:56 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Registration

Lead Agency: US Bureau of Land Management Carlsbad Field Office

Performing Agency: SWCA Environmental Consultants

Activity ID: 80772

Performing Agency Report No: 23-436

Report Recipient (Your Client): WPX Energy

Activity Types:

- ☐ Research Design
- ☑ Archaeological Survey/Inventory
- ☐ Architectural Survey/Inventory
- ☐ Test Excavation
- ☐ Monitoring
- ☐ Collections/Non-Field Study
- ☐ Compliance Decision
- ☐ Literature Review Overview
- ☐ Excavation
- ☐ Ethnographic Study
- ☐ Resource/Property Visit
- ☐ Historic Structures Report
- ☐ Other:

Total Survey Acreage: 45.40

Total Tribal Acreage: 0.00

Total Resources Visited: 6

Report run on: Sep 01, 2023 10:56 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Associate/Register Resources

Prefix	Number	Field Site/Other Number	In GIS	Resource Type	Collections Made?	Revisit
LA	37857		✔	Site	☐	Revisit
LA	86207		✔	Site	☐	Revisit
LA	122397		✔	Site	☐	Revisit
LA	203097	80772-Jbb-01	✔	Site	☐	
LA	203098	80772-Jbb-02	✔	Site	☐	
LA	203099	80772-Jbb-03	✔	Site	☐	

Report run on: Sep 01, 2023 10:56 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Report Details

Lead Agency

Lead Agency: US Bureau of Land Management Carlsbad Field Office

Lead Agency Report No.

Report Number:

Title of Report

Title of Report: Cultural Resources Survey for the RDU 11 Inadvertent Release Remediation Project in Eddy County, New Mexico

Authors: Courtney Blair

Type of Report

Publication Type: Report, Monograph, or Book

Positive

Description of Undertaking (what does the project entail?)

Description: WPX Energy, Inc (WPX), a subsidiary of Devon Energy Corporation (Devon), contracted SWCA Environmental Consultants (SWCA) to conduct an intensive cultural resources pedestrian survey in support of the RDU 11 Inadvertent Release and Remediation Project in Eddy County, New Mexico. To meet the cleanup standards of the New Mexico Oil Conservation Division 19.15.29 New Mexico Administrative Code, the remediation process will require removing impacted sediments from the contaminated area and replacing them with clean soil. The inadvertent release area is approximately 28.84 kilometers (km) (17.92 miles) southeast of Malaga, New Mexico, on lands managed by the Bureau of Land Management (BLM) Carlsbad Field Office (CFO), approximately 21.55 km (13.39 miles) north of Orla, Texas. The BLM CFO is the lead agency.

The inadvertent release area consists of two separate spill locations adjacent to the RDU 11 well pad. The northern spill is 0.17 hectares (ha) (0.43 acres), and the southern spill is 0.14 ha (0.35 acres), for a total of 0.32 ha (0.78 acres) of spill area. In addition to the two spill locations that will need remediation, WPX has identified a “path of investigation” beginning at the south end of the RDU 11 well pad and extends southwest adjacent to the southern spill, and then continues west within an existing pipeline right-of-way (ROW) corridor. The “path of investigation” will require collecting soil core samples to ensure that the full extent of the release has been identified and remediated. The total length of the “path of investigation” is 931.50 meters (m) (3056.11 feet). WPX identified a remediation boundary around the spill that will require ground disturbing work; this area is identified as the area of potential effects (APE) and totals 10.25 ha

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Report Details

(25.38 acres).

Dates of Investigation

From: 02-May-2023 **To:** 18-May-2023

Report Date

Report Date: 28-Jul-2023

Performing Agency/Consultant

Name: SWCA Environmental Consultants

Principal Investigator: Alissa K. Healy

Field Supervisor: Elizabeth Lemus

Field Personnel Names: Jacob Borchardt

Historian/Other

Performing Agency Report Number

Report Number: 23-436

Client/Customer (project proponent)

Name: WPX Energry

Contact: Jim Raley

Address: 5315 Buena Vista Drive, Carlsbad, NM

Phone (575) 885-1313

Client/Customer Project Number

Project Number: 80772

Report run on: Sep 01, 2023 10:56 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Ownership & Location

Land Ownership Status (Must be indicated on Project Map)

Owner/Manager List:

Land Owner/Manager	Protocol	Acres Surveyed	Acres in APE
US Bureau of Land Management Carlsbad Field Office	Class III	45.40	10.25

Total Survey Acreage: 45.40

Total Tribal Acreage: 0.00

Record Search(es)

Date of HPD/ARMS File Review:

Date of Other Agency File Review 22-Apr-2023

Survey Data

Source Graphics: NAD 83

☑ USGS 7.5' (1:24,000) topo map ☐ Other Topo Map Scale:

☑ GPS Unit <1M

☐ Aerial Photos Other Source Graphic(s):

The following tables (b,c,& e) are calculated by the NMCRIS Map Service

USGS 7.5' Topographic Map(s)

Map Name	USGS Quad Code
Ross Ranch, NM	32103-A8
Phantom Banks, NM	32103-A7

County(ies)

County	FIPS
EDDY	35015

Legal Description

Unplatted	Township (N/S)	Range (E/W)	Section
No	T26S	R30E	22
No	T26S	R30E	27

Projected Legal Description

Nearest City or Town: Orla, Texas and Malaga, New Mexico

Other Description:

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

GIS

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Methodology

Survey Field Methods

Intensity: 100% coverage

Configuration: ☑ Block Survey Units ☐ Linear Survey Units (l x y)

Other Survey Units

Scope: All Resources

Coverage Method: ☑ Systematic Pedestrian Coverage **Other Method:**

Survey Interval (m): 15 **Crew Size** 2

Fieldwork Dates **From** 02-May-2023 **To** 18-May-2023

Survey Person Hours: 9.00 **Recording Person Hours** 32.00

Additional Narrative: The survey included a 100-foot buffer around the proposed project area.

Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.)

Environmental Setting: The project area falls within the Chihuahuan Desert Basins and Playas (24a) Environmental Protection Agency Level III ecoregion (Griffith et al. 2006). The average elevation of the region is 2,890 feet (881 m) above mean sea level (amsl). The ecoregion is composed of deep depressions or grabens filled with sediment to form flat to rolling basins. Basins are either alluvial fans, internally drained basins, or river valleys surrounding major rivers (Pecos River) or internally drained with ephemeral streams. The project is within the desert shrub setting. Typical vegetation includes creosote bush, along with tarbush, fourwing saltbush, acacias, gyp grama, and alkali sacaton (Griffith et al. 2006). Plants observed during the survey include honey mesquite, creosote bush, broom snakeweed, grassland croton, fourwing saltbush, dropseed grass, prickly pear cactus, and other forbs and grasses.

Wildlife in the area includes mule deer and coyotes. Also typical to the area are bobcat, gopher, cottontail rabbit, jackrabbit, peccary, and various species of field mice, striped skunk, and pack rat (Biota Information System of New Mexico 2023). Important animal species prehistorically include bison, antelope, deer, and rabbit.

The surficial and bedrock geology are Qe/Qp Holocene to middle Pleistocene eolian deposits and Holocene to lower Pleistocene piedmont alluvial deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slopes, and alluvial fans. A single soil type, Gypsum land-Reeves complex with 0 to 3 percent slopes, occurs throughout the survey area. This soil type is a sandy loam and has a high runoff class with slow soil permeability. The soils are on ridges, hills and plains and the parent material is a residuum weathered from gypsum. This soil does not support current farming methods (Natural Resources Conservation Service 2023).

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NMCRIS Activity No. 153188 **HPD Log No(s).**

Methodology

The climate information was compiled using the Carlsbad, New Mexico (291469), climate station data (period of record February 1, 1900, to June 10, 2016). Rain is heaviest in May through October, averaging 4.14 centimeters (cm) (1.63 inches). Snowfall is heaviest between December and January, with an average of 3.10 cm (1.2 inches). January is the coldest month at -2.33 degrees Celsius (ºC) (27.8 degrees Fahrenheit [ºF]) and warmest in July at 35.33 ºC (95.6 ºF) (Western Regional Climate Center 2023).

References

Biota Information System of New Mexico
2023 Database Query for Lea County. Available at: http://www.bison-m.org/. Accessed June 2023.

Griffith, G.E., J.M. Omernik, M.M. McGraw, G.Z. Jacobi, C.M. Canavan, T.S. Schrader, D. Mercer, R. Hill, and B.C. Moran
2006 Ecoregions of New Mexico (color poster with map, descriptive text, summary tables, and photographs). Reston, Virginia: U.S. Geological Survey (map scale 1:1,400,000).

Natural Resource Conservation Service.
2023 Web Soil Survey Tool. Available at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm. Accessed June 2023.

Western Regional Climate Center
2023 Climate Summary for Carlsbad, New Mexico (COOP Station ID No. 291469). Available at: https://wrcc.dri.edu/cgibin/cliMAIN.pl?nm1469. Accessed June 2023.

Percent Ground Visibility

Ground Visibility: 51-75%

Condition of Survey Area: Observed disturbances include oil and gas development, including existing well pads, surface valves and buried pipelines. Also present are two dirt lease roads, a two-track road, overhead transmission lines, and surface polylines. Medium to large dunes are being impacted by water and wind erosion and bioturbation from small animals and cattle grazing was also observed.

Attachments (check all appropriate boxes)

- [x] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- [x] Copy of NMCRIS Map Check (required)
- [x] LA Site Forms - new sites (with sketch map & topographic map) if applicable
- [x] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
- [ ] Historic Cultural Property Inventory Forms, if applicable
- [x] List and Description of Isolates, if applicable
- [ ] List and Description of Collections, if applicable

Other Attachments

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Methodology

☑ Photographs and Log

☑ Other attachments **Describe:** BLM Fieldwork Authorization Form

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NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Cultural Resource Findings

Investigation Results

Archaeological Sites Discovered and Registered:	3
Archaeological Sites Discovered and NOT Registered:	
Previously Recorded Archaeological Sites Revisited (site update form required):	3
Previously Recorded Archaeological Sites Not Relocated (site update form required):	
Total Archaeological Sites (visited & recorded):	6
Total Isolates Recorded:	16
	☐ Non-Selective Isolate Recording
HCPI Properties Discovered and Registered:	
HCPI Properties Discovered And NOT Registered:	
Previously Recorded HCPI Properties Revisited:	
Previously Recorded HCPI Properties NOT Relocated:	
Total HCPI Properties (visited & recorded, including acequias):	0
If No Cultural Resources Found, Discuss Why:	

Management Summary

Summary:

SWCA conducted an intensive pedestrian survey for the RDU 11 Inadvertent Release Remediation Project, covering a total of 18.34 ha (45.40 acres) on lands managed by the BLM CFO in Eddy County, New Mexico. A 100-foot cultural survey buffer was placed around the project's APE. Three new archaeological sites (LA 203097, LA 203098, and LA 203099) were observed and recorded during the current investigation. Three previously recorded cultural resources (LA 37857, LA 86207, LA 122397) were expected within the project APE. SWCA revisited and updated the recordings of the three previously recorded cultural sites during the current undertaking. The site boundaries were updated or created based on the distribution of artifacts, features, and existing disturbances from oil and gas activity. The previously recorded and newly discovered sites are all possibly connected occupationally based on the proximity to each other and the temporal periods but have been separated by human activities and/or eolian erosion.

LA 37857 is a small prehistoric site with a low-density artifact scatter located in a residual dune field. LA 37857 has not previously been reviewed for eligibility to the NRHP by the BLM or SHPO. SWCA observed a sparse artifact scatter with a single feature that was not intact.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 153188 **HPD Log No(s).**

Cultural Resource Findings

In addition, three shovel tests and one trowel test were negative for subsurface cultural materials. Given the impacts from water and wind erosion and the oil and gas industry and the lack of evidence for subsurface cultural deposits, the site is not likely to provide important information on subsistence, seasonality, or technological information concerning the prehistoric occupation of southeastern New Mexico (Criterion D). Thus, SWCA recommends LA 37857 not eligible for listing to the NRHP. Remediation of the inadvertent release will not directly impact the site, and no further management is recommended.

LA 86207 is a large prehistoric artifact scatter within a dune and interdunal area. Following the previous recordings, LA 86207 was previously determined eligible under Criterion D for information potential by the BLM (HPD Log No. 72596, dated 10/26/2004) and SHPO (HPD Log No. 23249, dated 08/30/1991; HPD Log No. 53511, dated 090/8/1997; and HPD Log No. 53271, dated 08/01/1997). SWCA agrees with the previous eligibility determination on file. LA 86207 is 593.61 m (1,947.54 feet) west of the RDU 11 inadvertent releases and will not be directly impacted by the spill. The proposed path of investigation is 38.73 m (127.08 feet) north of the site and collecting core samples will have no effect on the site. SWCA recommends continued avoidance, and no further management is required.

LA 122397 is a large, dense prehistoric site located on a large sand hill covered in eolian dunes. LA 122397 has been previously determined eligible under Criterion D by the BLM and SHPO (HPD Log No. 83067, dated 11/08/2007). SWCA agrees with this determination and recommends the site retain its status of eligible for the NRHP under Criterion D. The path of investigation is proposed to be conducted along an existing pipeline corridor, approximately 17.82 m (58.45 ft) to the south of LA 122397. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of LA 122397 and that a cultural monitor be present during soil sampling within 30 m (100 ft) of the site. In addition, a fence should be constructed along the north side of the path of investigation to prevent additional foot or vehicle traffic entering the site.

LA 203097 is a low-density prehistoric site with a single FCR concentration, in a residual dune field. Feature 1 retains subsurface integrity and likely contains datable carbon deposits. Therefore, SWCA recommends LA 203097 be eligible for listing to the NRHP under Criterion D. LA 203097 is 302.78 m (993.37 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203097 site is located 8.57 m (28.11 ft) south of the proposed path of investigation. The path of investigation is proposed to be conducted within an existing pipeline ROW. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the site and a cultural monitor during soil testing within 30 m (100 ft) of LA 203097. Fencing can be utilized to the north of the site to encourage avoidance.

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Cultural Resource Findings

LA 203098 is a small prehistoric site with two thermal features in a residual dune field. The site yielded two positive trowel tests within the site features. SWCA recommends the site eligible for listing in the NRHP under Criterion D. LA 203098 is 250.95 m (823.34 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203098 is recommended eligible for listing in the NRHP under Criterion D. The proposed path of investigation is proposed to be located within an existing pipeline ROW near the southern end of LA 203098. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the LA 203098 and that a cultural monitor be present during the soil sampling within 30 m (100 ft) of the site. It is also recommended that fencing be installed around the northern boundary of the access road to eliminate the possibility of vehicles parking on the site during sampling activities.

LA 203099 is a small prehistoric site with a high-density artifact scatter in a residual dune field. No diagnostic artifacts or features were observed, and shovel tests were negative for subsurface cultural deposits. SWCA recommends the site as not eligible for listing on the under any criteria. LA 203097 is 656.77 m (2,154.77 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203099 is recommended not eligible for listing in the NRHP under any Criteria. The site is mostly outside the APE and is approximately 15 m (15 feet) north of the path of investigation for core sampling. The path of investigation will have no effect on the site and furthermore, the site is recommended not eligible. SWCA recommends no additional management is necessary.

In addition, sixteen IMs were observed and recorded during the investigations. In accordance with policies and regulations outlined in Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, the cultural resources inventory was completed to locate, identify, and record any cultural resources that might be affected within the APE of the proposed project and to provide recommendations of eligibility for the NRHP.

(see uploaded form for Tables).

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Attachments

Documents

Attachment Type	Description	Name	File Type	Size	Upload Date	Upload By
Report/Manuscript	NMCRIS_153188	NMCRIS_153188	PDF document	4599 KB	28-Jul-2023	Courtney Blair

Cultural Resources Survey for the RDU 11 Inadvertent Release Remediation Project in Eddy County, New Mexico

SEPTEMBER 2023

PREPARED FOR

Bureau of Land Management

Carlsbad Field Office

PREPARED FOR

WPX Energy, Inc.

PREPARED BY

SWCA Environmental Consultants

CULTURAL RESOURCES SURVEY FOR THE RDU 11 INADVERTENT RELEASE REMEDIATION PROJECT IN EDDY COUNTY, NEW MEXICO

Prepared for

Bureau of Land Management
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220-6292

Prepared for

WPX Energy, Inc
5315 Buena Vista Drive
Carlsbad, New Mexico 88220

Prepared by

Courtney Blair

SWCA Environmental Consultants
7770 Jefferson Street NE, Suite 410
Albuquerque, New Mexico 87109
Telephone: (505) 254-1115; Fax: (505) 254-1116
www.swca.com
Alissa K. Healy, Principal Investigator

SWCA Project No. 80772-000
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CHAPTER 1. INTRODUCTION AND PROJECT DESCRIPTION

WPX Energy, Inc (WPX), a subsidiary of Devon Energy Corporation (Devon), contracted SWCA Environmental Consultants (SWCA) to conduct an intensive cultural resources pedestrian survey in support of the RDU 11 Inadvertent Release and Remediation Project in Eddy County, New Mexico. To meet the cleanup standards of the New Mexico Oil Conservation Division 19.15.29 New Mexico Administrative Code, the remediation process will require removing impacted sediments from the contaminated area and replacing them with clean soil. The inadvertent release area is approximately 28.84 kilometers (km) (17.92 miles) southeast of Malaga, New Mexico, on lands managed by the Bureau of Land Management (BLM) Carlsbad Field Office (CFO), approximately 21.55 km (13.39 miles) north of Orla, Texas. The BLM CFO is the lead agency.

The inadvertent release area consists of two separate spill locations adjacent to the RDU 11 well pad. The northern spill is 0.17 hectares (ha) (0.43 acres), and the southern spill is 0.14 ha (0.35 acres), for a total of 0.32 ha (0.78 acres) of spill area. In addition to the two spill locations that will need remediation, WPX has identified a "path of investigation" beginning at the south end of the RDU 11 well pad and extends southwest adjacent to the southern spill, and then continues west within an existing pipeline right-of-way (ROW) corridor. The "path of investigation" will require collecting soil core samples to ensure that the full extent of the release has been identified and remediated. The total length of the "path of investigation" is 931.50 meters (m) (3056.11 feet). WPX identified a remediation boundary around the spill that will require ground disturbing work; this area is identified as the area of potential effects (APE) and totals 10.25 ha (25.38 acres). Table 1-1 presents the Public Land Survey System (PLSS) legal description for the project area.

SWCA conducted an intensive pedestrian survey for the RDU 11 Inadvertent Release Remediation Project (Figure 1-1 through Figure 1-12), which included a 30.4-m (100-foot) cultural buffer around the APE for a total of 18.34 ha (45.40 acres) on lands managed by the BLM CFO in Eddy County, New Mexico. Three new archaeological sites (LA 203097, LA 203098, and LA 203099) were observed and recorded during the current investigation. The three sites are small prehistoric resources with variable sized artifact assemblages within an active dune environment. LA 203097 and LA 203098 are both structural with fire-cracked rock (FCR) concentrations; LA 204098 has an ash stain associated with the FCR concentration.

Three previously recorded cultural resources (LA 37857, LA 86207, and LA 122397) were expected within the project APE. A site visit and updated recordings of the three previously recorded cultural resources were completed by SWCA archaeologists. All three previously recorded sites are prehistoric, in an active dune environment. LA 86207 and LA 122397 are large and have a dense artifact assemblage. These two sites have been previously determined eligible for the National Register of Historic Places (NRHP) under Criterion D. LA 37857 has a small artifact concentration. The site boundary for LA 37857 was found to be misplotted but still within the project area, and the corrected boundary was updated by SWCA archaeologists approximately 50 m (164 feet) northwest. LA 37857 did not have a previous determination by any state or federal agencies; however, SWCA is recommending LA 37857 as not eligible for the NRHP under any criteria. Additionally, sixteen isolated manifestations (IMs) were observed and recorded during the investigations.

Jim Raley is the point of contact for WPX (5315 Bueno Vista Drive, Carlsbad, New Mexico; telephone [575] 885-1313). The cultural resources survey was conducted out of SWCA's Albuquerque office (7770 Jefferson Street NE, Albuquerque, New Mexico; telephone [505] 254-1115), with Alissa K. Healy serving as principal investigator and Courtney Blair as project manager. Elizabeth Lemus served as the field supervisor, and Jacob Borchardt served as supporting field crew. Rob McCall served as the geographic information system (GIS) specialist. The report was compiled by Courtney Blair. Cristy Philips was the technical editor, and Kelley Cox formatted the report.

Details on the location of investigated archaeological sites, including Archaeological Records Management Section (ARMS) data of previous investigations and archaeological sites and surveys within 0.4 km (0.25 mile) of the survey area, are provided in Appendix A. Locational information is confidential and for official use only—public disclosure of archaeological site locations is prohibited by 16 United States Code 470hh and 36 Code of Federal Regulations 296.18.

Table 1-1. Public Land Survey System Legal Description for the Survey Area

Township	Range	Section	Quarters
26 South	30 East	22	SWSW
26 South	30 East	22	SESW
26 South	30 East	22	SWSE
26 South	30 East	27	NWNW
26 South	30 East	27	NENW
26 South	30 East	27	NWNE

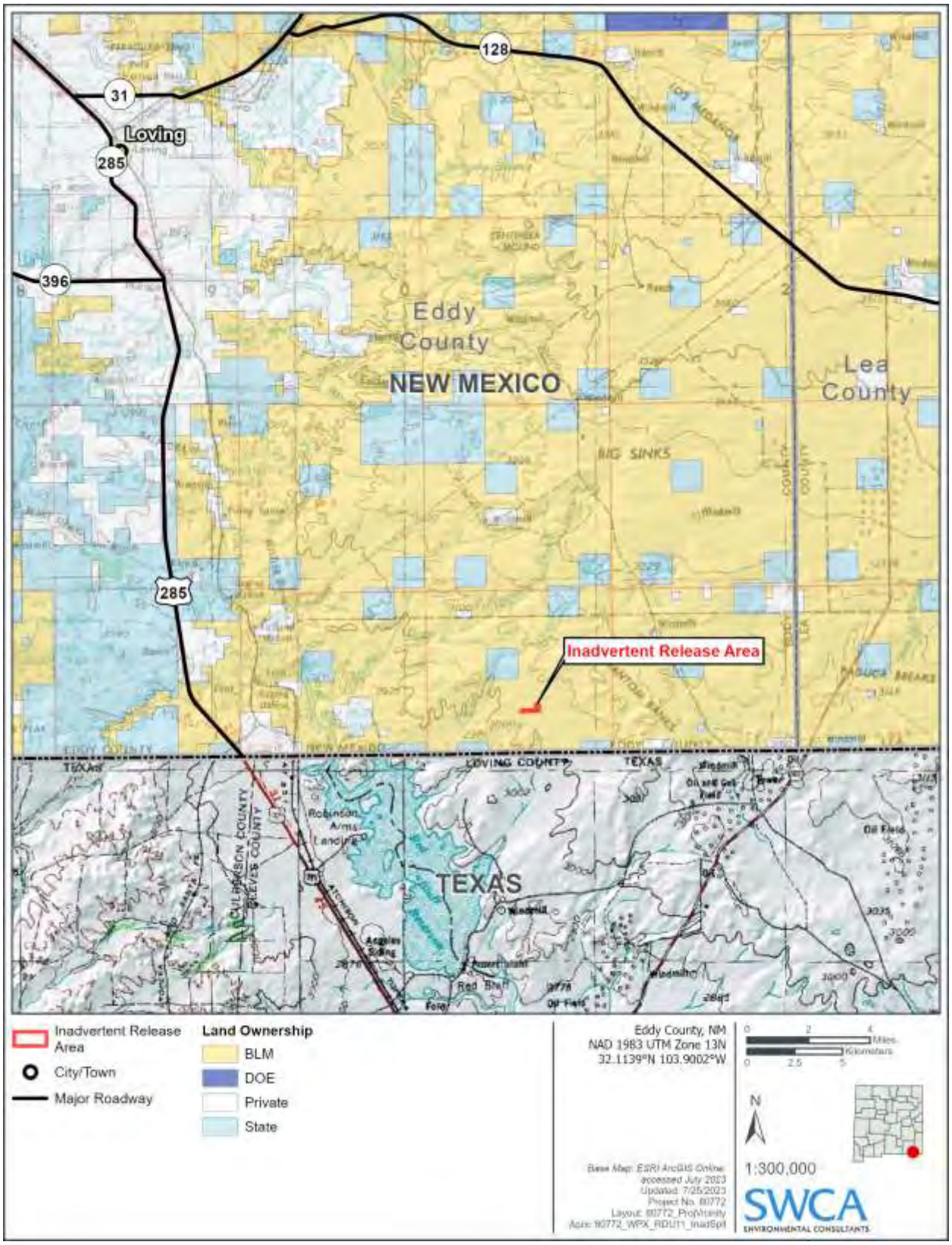

Figure 1-1. Project vicinity map.

Figure 1-2. Project location map.

Figure 1-3. Project overview of the spill area. No spill visible, facing west (Roll 80772, Frame T18-8363).

Figure 1-4. Survey overview of the spill area showing existing well pad in background. No spill visible, facing southwest (Roll 80772, Frame T18-8133).

Figure 1-5. Survey overview of the spill area. No spill visible, facing south (Roll 80772, Frame T18-7026).

Figure 1-6. Survey overview from west end of project area showing disturbance, facing east (Roll 80772, Frame T18-6202).

Figure 1-7. Survey area overview showing road and RDU 11 well pad near inadvertent release, facing north (Roll 80772, Frame T18-2955).

Figure 1-8. Overview of RDU 11 well pad by inadvertent release area, facing east (Roll 80772, Frame T18-5539).

Figure 1-9. Utility line bisecting project area in vicinity of IM 4, facing east (Roll 80772, Frame T18-5707).

Figure 1-10. Survey area overview from northeast corner of survey area, showing pumpjack and utility lines visible, facing southeast (Roll 80772, Frame T18-8759).

Figure 1-11. Survey overview toward LA 86207, utility line visible, facing southwest (Roll 80772, Frame T18-9041).

Figure 1-12. Survey overview near southwestern quadrant of project area, facing north (Roll 80772, Frame T18-5201).

CHAPTER 2. ENVIRONMENTAL SETTING AND CULTURE HISTORY

The proposed project is approximately 28.84 km (17.92 miles) southeast of Malaga, New Mexico, on lands managed by the BLM CFO, approximately 21.55 km (13.39 miles) north of Orla, Texas. The elevation of the project area is 923.05 m (3,028.38 feet) above mean sea level (amsl).

The area is used today primarily for rangeland and oil and gas exploration. Because of oil and gas development, a well pad, surface pipelines and valves, lease roads, a two-track road, overhead transmission lines, surface polylines, and buried pipelines are present within and adjacent to the project area.

ENVIRONMENT AND GEOLOGY

The project area falls within the Chihuahuan Desert Basins and Playas (24a) Environmental Protection Agency Level III ecoregion (Griffith et al. 2006). The average elevation of the region is 2,890 feet (881 m) amsl. The ecoregion is composed of deep depressions or grabens filled with sediment to form flat to rolling basins. Basins are either alluvial fans, internally drained basins, or river valleys surrounding major rivers (Pecos River) or internally drained with ephemeral streams.

The surficial and bedrock geology are Qe/Qp Holocene to middle Pleistocene eolian deposits and Holocene to lower Pleistocene piedmont alluvial deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slopes, and alluvial fans.

SOILS

A single soil type, Gypsum land-Reeves complex with 0 to 3 percent slopes, occurs throughout the survey area. This soil type is a sandy loam and has a high runoff class with slow soil permeability. The soils are on ridges, hills and plains and the parent material is a residuum weathered from gypsum. This soil does not support current farming methods (Natural Resources Conservation Service 2023).

CLIMATE

The climate information was compiled using the Carlsbad, New Mexico (291469), climate station data (period of record February 1, 1900, to June 10, 2016). Rain is heaviest in May through October, averaging 4.14 centimeters (cm) (1.63 inches). Snowfall is heaviest between December and January, with an average of 3.10 cm (1.2 inches). January is the coldest month at −2.33 degrees Celsius (ºC) (27.8 degrees Fahrenheit [ºF]) and warmest in July at 35.33 ºC (95.6 ºF) (Western Regional Climate Center 2023).

FLORA AND FAUNA

The project is within the desert shrub setting. Typical vegetation includes creosote bush, along with tarbush, fourwing saltbush, acacias, gyp grama, and alkali sacaton (Griffith et al. 2006). Plants observed during the survey include honey mesquite, creosote bush, broom snakeweed, grassland croton, fourwing saltbush, dropseed grass, prickly pear cactus, and other forbs and grasses. Mesquite was an important resource for people in prehistoric times. Many of the other typical grasses and plants were also collected prehistorically for subsistence and to provide material for non-subsistence use.

Wildlife in the area includes mule deer and coyotes. Also typical to the area are bobcat, gopher, cottontail rabbit, jackrabbit, peccary, and various species of field mice, striped skunk, and pack rat (Biota Information System of New Mexico 2023). Important animal species prehistorically include bison, antelope, deer, and rabbit.

CULTURE HISTORY

The culture history of far southeastern New Mexico is a local expression of trends that prevailed over a much larger geographic region. Human prehistory in the area began with the highly mobile hunter-gatherers of the Paleoindian tradition, followed by the Archaic tradition in which hunter-gatherers adapted to changing environmental conditions. The introduction of ceramics marks a major milestone that increased the archaeological visibility and temporal identification of sites in the region, although the prevailing lifeway of highly mobile foraging continued for several centuries, after which some groups in the region established village-type settlements and practiced farming. This lifeway was abandoned, however, prior to the arrival of Europeans and other non–Native Americans in the region.

This chapter presents a summary of culture history, focused broadly on the eastern extension of the Jornada Mogollon region (Leslie 1979) and more specifically on the BLM CFO region, which encompasses the project area.

The following discussion is distilled down from a longer and much more detailed culture history prepared by Jim Railey for the Permian Basin Research Design (Railey 2016). The reader is referred to that document for additional detail and a full bibliography for the area's culture history.

Paleoindian Tradition (11,500–6000 B.C.)

Humans were present in North America by ca. 11,500 B.C. (Fiedel 1999), and the Paleoindian tradition dates from this time to approximately 6000 B.C. This period spans the climatic transition from the Pleistocene to the Holocene. Climatic conditions were generally cooler and moister but were changing rapidly, as the vast ice sheets of the north (and alpine glaciers, including ones in the higher mountains of New Mexico) retreated, and the climate approached the warmer and more arid conditions of the Holocene. Lanceolate projectile points are the most characteristic artifacts of this tradition. The earlier points in the series exhibit distinct flutes—large flake scars extending up from their bases. In addition to projectile points, unifacial and bifacial scrapers, gravers with single, double, and even multiple spurs, and other flake artifacts have been found in Paleoindian tool kits.

In the American Southwest and southern High Plains, the Paleoindian tradition comprises three periods: Clovis (11,500–10,800 B.C.), Folsom (10,800–9800 B.C.), and Late Paleoindian (9800–6000 B.C.). Low population densities prevailed among these early inhabitants of the Americas, who apparently were organized as small-scale, residentially mobile, and socially fluid groups. These conditions, along with wide-ranging exchange and interaction networks maintained by Paleoindians, worked to homogenize projectile point styles and other cultural marker traits over vast areas (although some regional differentiation in style zones becomes apparent over the course of Paleoindian times). Moreover, high mobility and very low population densities mean that Paleoindian sites are rare and have low archaeological visibility. In the Great Plains and the Southwest, the distinctive Paleoindian projectile points have been recovered in association with the remains of large Pleistocene mammals, such as mammoth, camel, and several bison species, and these discoveries have contributed to an image of Paleoindians as specialized big-game hunters. But a growing number of researchers are questioning this characterization. Some suggest that big-game hunting and the production of exquisite projectile points— typically made from exotic materials obtained from distant sources—may have been motivated more by hunters seeking high status rather than by daily subsistence needs. Still, Paleoindians' use

of plant foods was probably highly opportunistic compared with their Archaic successors, perhaps because of highly unstable climatic conditions in late Pleistocene times.

Few identified Paleoindian components are in sites in the BLM CFO region, although their locations suggest concentrations along the Pecos River, the base of the Mescalero Escarpment, and in far southeastern Lea County near what were probably pluvial lakes (Condon and Smith 2012). Data from ARMS obtained for the Permian Basin Research Design (Railey 2016) indicated that at that time there were only seven identified Clovis components in sites in the BLM CFO region, but the number jumps to 27 for the Folsom period and 29 for the Late Paleoindian period.

Archaic Tradition (6000 B.C.–A.D. 500)

The beginning of the Holocene epoch, around 10,000 years ago, corresponds to the termination of major glacial activity, a shift to drier and warmer climates, and the extinction of the Pleistocene megafauna. Concurrent with these changes, prehistoric peoples of the Southwest developed new lifeways and material items during the time referred to by archaeologists as the Archaic tradition. Spanning roughly 6,000 years, the Archaic tradition encompassed several trends. One is population growth, evidenced by the much larger numbers of sites relative to those of the Paleoindian tradition and increasing numbers of sites for successive Archaic periods and phases. Another trend involved a progressive decrease in residential mobility, indicated by the appearance of structures and other facilities (including storage pits) that suggest a more substantial and long-term commitment to at least certain settlements and localities. Social development over the course of the Archaic tradition probably led to increasingly larger sociopolitical units that inhabited progressively smaller, more sharply defined territories, with one archaeological outcome being an increasing regionalization of artifact styles over time. Archaic peoples intensively used a wide variety of plants and animals and developed new strategies to feed larger numbers of people crowded into ever-smaller territories. Such strategies included both subsistence intensification and complex exchange and interaction networks. Increasing population densities (especially after the beginning of Middle Archaic times) and the consequent shrinking of group territories are also typically tied to sociopolitical dynamics involving escalating social conflict, which probably helped further motivate intensified subsistence production.

Archaeologically, the intensification of subsistence practices is best reflected in the appearance and gradually increasing abundance of ground stone implements over the course of the Archaic. Domesticated maize and appreciable farming dependence is evident by the final centuries of the B.C. time frame in the Rio Hondo drainage to the northwest, but similar trends are not evident in the BLM CFO region for the pre-ceramic time frame. Hunting also provided a significant part of the subsistence economy throughout the Archaic sequence, as food-producing domesticated animals were absent. Contrary to prevailing notions, people may not have exploited a broader range of resources during this time than their Paleoindian predecessors did, although they clearly exploited them using less opportunistic, more intensified strategies. New cooking techniques included the use of pit ovens, often involving quantities of heated stones, leaving behind rock-filled pits, scatters of burned rock, and huge rock piles or “ring middens,” which in the BLM CFO region occur especially to the west and along the Pecos River.

Besides ground stone implements, Archaic tool assemblages included knives, scrapers, drills, perforators, and numerous stemmed and notched projectile points of various types. Awls, handles, and flakers were fashioned of bone and antler. Although rarely preserved, wood was used for a variety of implements, including spear throwers or atlatls (the bow and arrow did not appear in this area until around the end of the Archaic tradition). Many dry caves and rockshelters have preserved rich assemblages of artifacts made from plants and other perishable materials and underscore the impressive diversity of prehistoric material culture.

The Archaic tradition is commonly divided into three periods—Early Archaic (6000–3200 B.C.), Middle Archaic (3200–1800 B.C.), and Late Archaic (1800 B.C.–A.D. 500). Across at least most of the BLM CFO region, Archaic peoples pursued a highly mobile lifeway based on hunting and gathering. Radiocarbon frequency trends and other data indicate accelerating population growth during the Late Archaic period. Data for the BLM CFO region from ARMS obtained for the Permian Basin Research Design revealed 110 Early Archaic, 162 Middle Archaic, and 660 Late Archaic components in sites (Railey 2016). Population growth during the Late Archaic was probably helped by improved climatic conditions following the Mid-Holocene Dry Period of ca. 5500 to 2000 B.C., which probably resulted in a proliferation of new water sources and increased biomass across the Mescalero Plain. Some sites have abundant and dense concentrations of Late Archaic archaeological remains, suggesting repeated visits to particular localities and/or seasonal or occasional large gatherings of socially related groups. Punto de Los Muertos (LA 116471) (Wiseman 2003a, 2003b), just outside Carlsbad, New Mexico, along the Pecos River, was a Late Archaic stone mound that was badly looted before professional excavations occurred and contained human remains with associated grave goods. Among other things, it may have served as some sort of social gathering place and territorial marker, and if so, it underscores the potential effects of population growth and territorial packing.

Formative Tradition (A.D. 500–1450)

“Formative” is a term commonly applied by archaeologists to the ceramic periods of the Jornada Mogollon region (Miller and Kenmotsu 2004:236–237). The well-dated sequence of sites in the Hondo Valley, northwest of the BLM CFO region, suggests that ceramics appeared there around A.D. 500 (Campbell and Railey 2008), and this date is used here for the beginning of the Formative tradition. The addition of ceramics to the inventory of artifacts provides a tremendous advantage in recognizing Formative period site components as compared to pre-ceramic ones. Ceramics also enhance temporal resolution and age estimates of site components, especially for the more distinctive, painted wares that can cross-date between different regions. Ceramics, however, may not have been all that common in far southeastern New Mexico during the Early Formative period. At about the same time ceramics appeared in the region, the bow and arrow also arrived. This is inferred from a sharp reduction in the size of projectile points, which occurred across most of sub-boreal North America around A.D. 400 to 700.

Thanks to both ceramic seriation and abundant radiocarbon dates, the Formative tradition can be divided into two periods: Early (ca. A.D. 500–1100) and Late Formative (ca. A.D. 1100–1450), with the appearance of Chupadero Black-on-white ceramic being the most prominent marker separating the two. The successive appearance of particular decorated ceramic types in the Late Formative, along with changes in arrow point forms, point to a two phases of this period, divided at ca. A.D. 1100. Accordingly, this discussion uses the previously established Maljamar (A.D. 1100–1300) and Ochoa (A.D. 1300–1450) phases to subdivide the Late Formative. Also included here is the Querecho phase (A.D. 900–1100), not because of any prominent markers in archaeological assemblages or site characteristics (other than the rare appearance of some decorated pottery types, such as Mimbres Black-on-white), but because it corresponds to the onset of the Medieval Warm Period and a precipitous drop in the number of radiocarbon dates in the BLM CFO region, which is used as proxy for population sizes.

Radiocarbon frequencies indicate that population growth and ubiquitous use of the landscape by highly mobile hunter-gatherers continued after the Late Archaic in the first few centuries of the Early Formative period. However, with the onset of the Medieval Warm Period during the Querecho phase, radiocarbon frequencies plummet sharply in the Mescalero Plain. This suggests increased mortality, out-migration, withdrawal of human groups to now-reduced numbers of reliable water sources, or some combination of these trends. Some groups in the Mescalero Plain may have begun to settle into less mobile lifeways during the Querecho phase, but the evidence for this is equivocal at best. At any rate, the response to the

Medieval Warm Period may have helped prompt some fundamental changes in cultural adaptations that took hold during the subsequent Late Formative period.

The Late Formative period indeed witnessed some of the most profound changes in the prehistory of the BLM CFO region. In terms of artifacts, the most prominent temporal indices of this period are a variety of distinct and well-dated, decorated ceramic types. Chupadero Black-on-white and El Paso painted (bichrome and early polychromes and later just El Paso Polychrome) were present by the beginning of this period or soon after and eventually edged out undecorated brown wares, persisting as common types throughout the Late Formative time frame. Other painted and corrugated wares appeared in the Late Formative as well. After A.D. 1300, exotic ceramic types from a variety of areas in the Southwest appeared in southeastern New Mexico, including Rio Grande glaze wares, Lincoln Black-on-red from the Sierra Blanca highlands, Ramos Polychrome from the Casas Grandes area, and Gila Polychrome from the Salado region. Another post–A.D. 1300 ceramic type is Ochoa Indented, a Southern Plains type that appears to have been restricted to areas east of the Pecos River. Also, around A.D. 1200 or 1300, arrow points changed in style from strongly shouldered, corner-notched, or stemmed forms to side-notched specimens.

By A.D. 1300, if not earlier, substantially occupied "villages" were established across much of the BLM CFO region, from the Mountain Slope area in the west to near the Texas state line in the east. This was part of a widespread pattern of greater sedentism and village formation across the southeastern Great Plains and Jornada Mogollon region in the early to mid-second millennium A.D. The appearance of villages corresponds to an increase in bison hunting across the southern High Plains, as well as maize-based farming. Recent investigations at the Merchant Site have provided the clearest evidence to date of these trends in the Mescalero Plain of the BLM CFO region.

These trends also occurred in concert with the development of the Pueblo-Plains Interaction Sphere, which geared up around A.D. 1300 and in which Plains groups traded hides, dried meat, and perhaps other products to the more settled farmers to the west in exchange for decorated pottery, obsidian, turquoise, scarlet macaws, copper bells, cotton blankets, and maize. Among the key archaeological indicators of this phenomenon is the appearance in the southern Plains of numerous beveled knives and end scrapers that were used to process bison hides. Before A.D. 1450, however, Pueblo-Plains interaction was limited mostly to gift exchange involving small numbers of items.

Post-Formative Native Americans (after A.D. 1450)

The post-Formative began with the widespread abandonment of late prehistoric villages in the southern Plains around A.D. 1450, as groups throughout the region shifted to a more nomadic lifeway centered more squarely on bison hunting. Archaeologically, the Post-Formative is somewhat of a phantom, as many of the diagnostic ceramic types largely disappeared along with village sites. Ceramics are either absent in the BLM CFO region at this time or, to the extent they were still in use, consist of types that are largely unknown. People on the west side of the Llano Estacado apparently ceased making pottery at this time, obtaining vessels from the Pueblo societies to the west. Side-notched arrow points, similar to those that appeared after A.D. 1200 (see above), continued into this period to an unknown date, along with Perdiz points that are characteristic of the Toyah phase in Texas and spill over in small numbers into the BLM CFO region. During historic times, stone arrow points were replaced by metal points and, eventually, firearms. A metal arrow point at LA 147382, a site along Dog Town Draw in the Pecos River Corridor (not far from the project area), is one of the very few such finds in the region.

As part of the shift to nomadism during post-Formative times, it is reasonable to expect that tipis became a more common dwelling form. Some argue that tipi rings in the region are very late in time, postdating other types of structures. That may be true, but tipi rings date back several thousand years on the Plains,

and it is entirely possible that at least some in southern New Mexico predate the post-Formative time frame.

At any rate, by A.D. 1500, if not earlier, people on the southern Plains had given up their attempts at village life, with its mixed focus on farming and bison hunting, and had become nomadic, tipi-dwelling bison hunters. This probably occurred at least in part because of increased demand from the Pueblos for bison products and other resources from the southern Plains (such as Alibates and Edwards chert). As discussed below, during historic times along the west edges of the Plains, the Jumano, Apache, Comanche, and Hispanic ciboleros successively filled the role of mobile hunters who supplied the Pueblos and Spanish villagers of the Southwest with meat and other bison products. However, it is unknown whether bison hunting was as productive at this time in the BLM CFO region as it was in neighboring areas of the southern High Plains. If not, the continued drop in the number of radiocarbon dates into the post-Formative and historic time frame may indicate that many people moved out of the BLM CFO region to better bison-hunting areas. By the time the earliest Spanish explorers entered the region, there were few Native Americans reported here. Over time, the region became the domain of the Apache and, later, the Comanche.

Historic and Recent Traditions (A.D. 1500–Present)

When the earliest Spanish explorers entered the Southwest and southern Great Plains, they arrived in a world that had been substantially transformed over the preceding couple of centuries. Throughout most of the historic time frame, Euro-American exploration, settlement, and commercial activities occurred mostly along and beyond the margins of far southeastern New Mexico. As a result, the present- day BLM CFO region remained a remote, little-known expanse and the domain of nomadic Native Americans until well into the nineteenth century. It was one of the last parts of the state to be settled by Europeans and Americans of European descent.

Initial Spanish Exploration (A.D. 1540–1598)

Francisco Vásquez de Coronado's 1540 through 1542 expedition to southwestern North America and the southern Plains passed well to the north of the Carlsbad region during the 1541 journey to the Great Plains in search of the legendary Quivira (Flint and Flint 1997; Hammond and Rey 1940; Winship 1904). Four decades later, the Chamuscado and Rodriguez expedition of 1580 and 1581 journeyed up the Rio Grande to the Pueblos of New Mexico and also traveled eastward onto the Plains in the vicinity of Santa Rosa, again well to the north of the present-day BLM CFO region (Hammond and Rey 1966; Mecham 1926a). The first team of Spaniards known to have traversed the BLM CFO region was the 1582 to 1583 expedition of Antonio de Espejo, who found the Pueblo inhabitants of the Rio Grande Valley sufficiently hostile that he returned to Mexico via the Pecos River (Hammond and Rey 1966; Mecham 1926b). This was followed by the illegal colonizing expedition of Gaspar Castaño de Sosa in 1590, which traveled up the Pecos River Valley and encountered several deserted Native American camps and groups of nomads (Hammond and Rey 1966:29, 34–35, 48). The following year, a team led by Juan Morlette pursued Sosa and arrested him at Santo Domingo Pueblo. Little is known about Morlette's route, but he probably followed the Rio Grande to the north and back to Mexico, rather than the Pecos River (Hammond and Rey 1966:298–301).

During their journeys out onto the Plains, these early Spanish entradas witnessed herds of bison and the tipi-dwelling nomads, who moved with the herds using travois pulled by dogs. These "dog nomads" were usually referred to by the earliest Spanish explorers as the "Querecho" or "Vaqueros," and at least some of them were probably ancestral to historically known Apache groups (Opler 1983a:385–386; Sonnichsen 1973:35). Along with the Navajo, the Apache are Athapaskan speakers whose linguistic homeland lies far

to the north in subarctic Canada. These groups moved southward through the western Plains and entered the southern Plains and Southwest probably not long before the arrival of Coronado's expedition (Opler 1983a).

Non-Apache groups living on the southern Plains and in the Southwest were also observed by or reported to the early Spanish explorers. Among the more prominent of these are the Jumano, whose ethnic identity remains largely a mystery. Kenmotsu (2001) argues that the Jumano were a distinct ethnic group, with a homeland between the Pecos and Colorado Rivers in West Texas, although they ranged widely beyond this area (see also Anderson 1999:15–66). The Jumano apparently had close relations with the Tompiro or Salinas Pueblos (between the Rio Grande and Pecos River Valleys), which were referred to by the Spanish as the "Humanas" or "Ximenas," and there may have been considerable intermarriage between the Pueblos and the Jumano (Kenmotsu 2001).

At any rate, the Spanish explorers observed the thriving trade in bison products from the Plains to the Pueblos and other surrounding regions, which minimally involved Apache and Jumano groups. However, during the return journey of Espejo's team from Pecos Pueblo down the Pecos River, they

> adhered to the river's course for a distance of about 120 leagues [i.e., 579 km or 360 miles] without seeing a single human being; nor did they catch a glimpse of the buffalo, although they discovered numerous traces along the way. (Mecham 1926b:135)

There were almost certainly Native inhabitants along the Pecos River in far southeastern New Mexico at the time of Espejo's traverse, and, if so, they probably would have observed the passing team of explorers from a distance and avoided contact. As a result, unlike the rich accounts of Native peoples in southern Texas from Cabeza de Vaca's journey and in New Mexico and the Plains region to the north from the Coronado and Chamuscado-Rodriguez expeditions, the earliest entry of Europeans into far southeastern New Mexico has left us with essentially no information about Native peoples and their lifeways. This leaves open an important question as to whether Contact period peoples in this area were more similar to hunter-gatherers of southern Texas (who subsisted on a wide variety of foods, including roots and cacti), the nomadic bison hunters to the north, or some combination of both.

Spanish Colonization and Continued Exploration (A.D. 1598–1821)

The Spanish colonization of New Mexico began in 1598 with the expedition of Juan de Oñate, whose team traveled up the Rio Grande Valley, staying well to the west of the BLM CFO region. The ensuing settlement of the region remained focused on the Rio Grande Valley, with settlers clustered in the El Paso-Las Cruces and Albuquerque-Santa Fe areas throughout the Spanish Colonial period. However, excursions out onto the Plains—again, well to the north of far southeastern New Mexico—continued. These included a journey in 1601 by Oñate deep into the Plains of present-day Kansas, as part of an investigation of Umana's and Leyba's illegal expedition, and a 1634 expedition by Captain Alonzo Baca that probably followed a similar route (Bolton 1916; Hammond and Rey 1953; Simmons 1991; Twitchell 1911:345).

In 1650, Hernán Martín and Diego del Castillo set out from Santa Fe, New Mexico, on a journey to the southeast in search of pearls reported by the Jumano Indians living in that direction. This expedition traveled deep into the Edwards Plateau of west-central Texas to El Río de las Perlas (River of Pearls) and El Río de los Nueces (River of Nuts). These place names probably refer to the area around the confluence of the Concho and Middle Concho Rivers, where pearl-bearing freshwater mollusks were found. This expedition was soon followed in 1654 by another, this one led by Diego de Guadalajara, which reportedly followed the same route to the Rio concho (Bolton 1916; Twitchell 1911:345).

One or both of these expeditions may have passed through the BLM CFO region, although their precise routes are not entirely clear, and it is equally possible that both passed just to the north of Lea County.

Following the Pueblo Revolt of 1680 and the subsequent Reconquest in the 1690s, the Spanish more firmly and permanently entrenched themselves in New Mexico. Throughout the seventeenth and eighteenth centuries, relations between the Spanish, Pueblos, and Apache fluctuated between states of mutual hostility and brutality at one extreme to alliances, trade relations, and even co-residence at the other. The "Apache de Siete Rios" (Seven Rivers Apache) were first mentioned by the Spanish in 1659 (Opler 1983a), reportedly living within the present-day BLM CFO region. In his published maps, Schlesier (1972) shows the Seven Rivers area lying within the "Pecos Division" of the Southern Plains Athapaskan Aspect in 1692, and the "Siete Rios-Guihlkainde" branch in his maps dated between 1706 and 1768. By the early nineteenth century, the Siete Rios-Guihlkainde branch became one of the five main bands of the Mescalero Apache (Opler 1983b; Schlesier 1972:112).

The spread of horses among Native Americans was catalyzed by the Pueblo Revolt of 1680, as the Spanish fled south and left behind large herds of horses in the Santa Fe area. The historical evidence strongly suggests that the use of horses reached the Apache in far southeastern New Mexico (and any other Native groups that may have been living there) sometime in the 1680s. The spread of the horse had a profound impact on lifeways and geopolitical dynamics among various Native American groups as well as the Spanish colonists (Hämäläinen 2003). The acquisition of the horse by the Apache, in conjunction with their growing numbers and perhaps superior military tactics, gave them a decisive advantage over their rivals on the southern Plains. They hit the Jumano and other groups especially hard, gaining control of east-west trade routes by 1700 (Hämäläinen 1998:488). But their advantage was short-lived, as the Comanche soon became the main beneficiary of the historical geopolitical shake-up following the spread of the horse.

Belonging to the Eastern Shoshone language group, the Comanche were descendants of Numic speakers whose dramatic expansion was the signature development of late prehistory in the Great Basin (Bettinger and Baumhoff 1982). By the early eighteenth century, the Comanche were specialized, horse- mounted bison hunters concentrated along the Arkansas River in southeastern Colorado and western Kansas (Hanson 1998:470; Richardson 1933), and their important role in New Mexico history commenced during this period. Along with their Numic-speaking linguistic relatives, the Utes, Comanches first appeared as traders in New Mexico in 1706 (Hämäläinen 1998:488; Hanson 1998:469; Richardson 1933:55; Shimkin 1940), and in 1719 they started raiding and trading widely in New Mexico. By 1740, their range expanded southward, extending from western Kansas and southeastern Colorado to south-central Texas, and from the Pecos River on the west to central Kansas, Oklahoma, and Texas on the east.

Relations between the Spanish, Comanche, and other players in the region continued to fluctuate between trading, raiding, and all-out war during the late eighteenth century, and the Comanche-orchestrated trade network suffered some serious setbacks beginning in 1779 and into the 1780s (Hämäläinen 1998:502–503). But the Comanche's trade capabilities were enhanced and reinvigorated by a peace agreement with Spain in 1786, after which Comancheros (settled traders of Spanish, Pueblo, and other Native American ethnic affiliation) began to trade more actively with the Comanche. The Spanish also supported further Comanche attacks against Apache groups at this time (Hämäläinen 1998:504–505; Kenner 1969:53–58). Although Comancheros operated mainly to the north, they continued to support their Comanche allies into the Mexican and American periods, when the Comanche made their last stand against the U.S. military in the Llano Estacado.

Mexican and American Periods (A.D. 1821–1880)

Following the Louisiana Purchase in 1803, most of the Great Plains became part of the United States, and American traders began following their French predecessors into the Plains and on to New Mexico along the Santa Fe Trail. Mexico's independence from Spain in 1821 further reshaped the geopolitical mosaic of the southern Plains and the Southwest. Mexico's financial troubles adversely affected trade, and relations between the Comanche and New Mexico shifted from an emphasis on exchange to warfare at this time. Meanwhile, incursions by the Arapahoe and Cheyenne into the upper Arkansas River basin led to intense competition with the Comanche based in that area. The once-flourishing Western Comanche trade center was already facing considerable challenges when it was finally brought to an end with the establishment of Bent's Fort in 1833. Bent's Fort was intentionally situated in the same area as the Western Comanche trade center, along the upper Arkansas River (which was then part of the U.S.- Mexico border), to take advantage of the vast trade network's existing geographic nexus and position along the Santa Fe trail (Hämäläinen 1998:512–513).

Texas and New Mexico became part of Mexico after 1821 but were acquired by the United States following the Mexican-American War of 1846 to 1848. During and after the war, far southeastern New Mexico remained an isolated and largely uncharted frontier occupied by Comanche and Apache peoples. Soon after the Mexican-American War, the United States launched military expeditions that passed through far southeastern New Mexico. The primary purpose of these expeditions was to scout potential transportation routes and document conditions in anticipation of future settlement and development. These include the expeditions headed by Randolph B. Marcy in 1849 and John Pope in 1854, which sought to establish wagon and railway routes between southern New Mexico and West Texas (Sebastian and Larralde 1989:117–118; Sheridan 1975:20–25). When scouting parties reported that the Llano Estacado was impassable because of the lack of water, these expeditions and the transportation routes they established veered to the south of the New Mexico-Texas border, where several military forts were already established in the Trans-Pecos area of Texas. Meanwhile, other routes were established to the north of the present-day region (Sheridan 1975:28–31).

As one of the last unsettled frontiers in the United States, far southeastern New Mexico remained well beyond the extent of Euro-American settlement during the first half of the nineteenth century. The ongoing spread of Anglo settlers and ranchers in Texas reached far southeastern New Mexico soon after the Civil War. The Colorado mining boom and operation of military forts to the south resulted in a large demand for beef, and Texas cattlemen were eager to supply that demand (Beck 1962). The West Texas route to Colorado followed the Pecos River to a fording place that intersected with what is now Guadalupe Street in Carlsbad, New Mexico. In 1866, Oliver Loving and Charles Goodnight drove 1,600 cattle up this Pecos River route toward Denver. Along the way, they stopped at Fort Sumner and discovered there was a viable market for their cattle here as well. The following years more cattlemen, including John Chisum in 1867, moved an estimated 100,000 head of cattle north along the Loving-Goodnight trail, as the Pecos route came to be known (Sebastian and Larralde 1989:119–120).

The continued Indian attacks, along with growing Anglo-American interest in southeastern New Mexico and the Llano Estacado, prompted a concerted military effort to explore the region and rid it of these last remaining Native Americans. During the U.S. expeditions to the Llano Estacado in the 1870s, military units camped at springs and other water sources that had been used as Comanche base camps. Meanwhile, to the west, Euro-American settlers were encroaching on the Mescalero Apache, and U.S. military action resulted in an 1852 treaty that confined the Mescalero to a small reservation near Fort Sumner at Bosque Redondo. The reduced territorial range imposed by the reservation, along with failed attempts to force the Mescalero to become full-time farmers, left them dependent on food rations from the government. Competition over beef contracts helped spark the infamous Lincoln County War of 1878. The dire conditions prompted the Mescalero to resume raiding, which was met with a brutal response by the

U.S. military in 1880, and by 1885, the Mescalero were out of options and forced to accept life on their reservation (Opler 1983b:422–424; Sonnichsen 1973:157–162, 193–206).

Euro-American Settlement, Ranching, and Industry

With the threat of Native American attacks removed, Euro-Americans were free to move into far southeastern New Mexico and establish ranches and other settlements. During the 1870s, commercial bison hunters moved into the region. Among these were James Harvey and Dick Wilkerson, who in 1879 claimed squatter's rights at Monument Spring (Murrah 2005:2), making improvements, and by 1885 had killed the last bison in the area. The extermination of the bison coincided with an expansion of cattle ranching efforts in southeastern New Mexico, and ranching dominated the region's agricultural economy during the latter half of the nineteenth century. The Texas cattle drives only lasted 14 years (1866–1880) but were instrumental in populating the area and feeding miners and railroad crews (Katz and Katz 1985). As cattle became the mainstay of the economy in far southeastern New Mexico in the late 1800s, the immense herds and intensity of grazing had a devastating effect on the environment. The coppice dunes that cover much of the Mescalero Plain are a direct result of overgrazing and destabilization of surface sands across the region.

The passage of the Desert Land Act in 1877, the Kinkaid Act of 1904, and the Enlarged Homestead Act of 1909 facilitated the acquisition of public lands, which effectively ended the open range. These acts of legislation, coupled with the great droughts in the 1880s, brought about the end of the cattle empires (Sebastian and Larralde 1989). In fact, the year 1896 brought about a drought dubbed the "Big One" by locals, in which over 35 percent of the cattle in the region starved to death (Tracy 1982:64).

With the multiple droughts in the 1880s, John and Charles Eddy decided something must be done to keep water flowing in the valley. They purchased wells and started an irrigation ditch, the Halagueno Ditch, that was diverted from the east side of the Pecos River. This ditch would supply their multiple properties with enough water to irrigate their fields and support their interests. A business partner of the Eddy's, Joseph S. Stevens, had recently inherited money and, thinking of the great success of irrigation in California, decided it would be smart to invest his money with the Eddy's and in the irrigation of the Pecos Valley (Tracy 1982:64). The Pecos Valley Land & Ditch Company was formed by the Eddy's and Stevens on October 31, 1887.

Of the homesteading legislation, the Desert Land Act was the most popular in southeastern New Mexico, because of the amount of acreage available and the fact that living on the land was not required (Merlan 2008:18). With these options of obtaining land and the encouragement of the Eddy brothers and Stevens, claims were filed in earnest by newcomers and supporters of the Pecos Valley Land & Ditch Company (Tracy 1982:65). At this time, Charles Greene, a local promoter of the railroad and New Mexico in general, came on the scene. He saw a great opportunity to help build the area and approached Pat Garrett, of Lincoln County War fame, at his ranch and asked him to introduce him to the Eddy brothers. Garrett and Greene traveled from Garrett's Roswell ranch to Charles Eddy's ranch and a new partnership, the Pecos Irrigation & Investment Company, was born in 1888, and a town site was selected. The town of Eddy was laid out, and Greene traveled to Europe to promote the town, and therefore, the company (Tracy 1982:65). Two main irrigation canals were started, but the cost of promoting the town and building the irrigation system took its toll on the money at hand. To combat the shortness of cash, Eddy and R. W. Tansill enlisted the help of J. J. Hagerman, a miner from Colorado. Because of Hagerman's money, he was able to direct the structure of the new corporation that was formed, the Pecos Irrigation and Improvement Company. Greene was very successful, and immigrants from Switzerland, Italy, and England poured into the valley. Development of the town and its surrounding area progressed and at one time the Pecos Irrigation and Improvement Company planned on eventually irrigating 1,000,000 acres between Pecos, Texas, and Roswell, New Mexico (Tracy 1982:66).

Realizing that success for the region depended on the ability to transport agricultural products to market, Hagerman also elected to provide the Pecos Valley with a railroad link to the outside world. In 1890, joining forces with Charles Eddy, Hagerman announced the incorporation of the Pecos Valley Railroad Company. The proposed railroad line would connect Eddy and Roswell, New Mexico, with Pecos, Texas, and the main line of the Texas & Pacific Railroad. The Pecos Valley Railway reached Eddy (now Carlsbad) in January 1891 and Roswell in 1894 (Schroeder and Jenkins 1974). The railroad brought settlers to the area and crops of cotton and alfalfa (perfect for the Eddy County climate), along with cattle, sheep, and wool, could be moved into and out of the area more efficiently. Eddy and Hagerman parted company in 1895. Hagerman formed a new company, the Pecos Valley and Northeastern Railway, laying 182 km (113 miles) of track from Roswell to Portales, Cameo, and Texico (Boggess 2011).

The Panic of 1893 (caused in part by railroad overbuilding, shaky railroad financing, and a depleted gold supply) set off a series of bank failures, and flooding of the Pecos River devastated the irrigation system, damaged the railroad tracks, and washed out the Avalon Dam and Hagerman Dam (renamed the Tansill Dam). Hagerman's company, the Pecos Irrigation and Improvement Company, declared bankruptcy in 1898, and by 1899, control of the railroad had passed to the Atchison, Topeka & Santa Fe railway. Ongoing difficulties with irrigation, coupled with a long-term drought, unregulated drilling for water, and poor irrigation practices, as well as years of heavy grazing, compounded the problem (Katz 1987). More than half of the cattle died, and beef prices dropped considerably (Katz and Katz 1985). Without water for the land, settlers faced complete ruin. Unable to finance another repair, the Pecos Irrigation and Improvement Company petitioned the federal government to step in and take over the company as well as the Carlsbad Irrigation Project, another irrigation company in the region. In 1905, the Bureau of Reclamation purchased the Carlsbad Irrigation Project, and by 1907, the Carlsbad Irrigation Project was fully operational again, irrigating up to 30,000 acres with 233 km (145 miles) of ditches. This led to an increased production of alfalfa and cotton. By 1918, cotton was the major cash crop in New Mexico, grossing $500,000 that year (Beck 1962). During that period, the New Mexico territory was granted statehood, becoming the forty-seventh state of the union (Schroeder and Jenkins 1974).

Just 16 km (10 miles) southwest of Carlsbad in the northeastern extension of the Guadalupe Mountains, the exploration of bat caves in 1915 changed the Carlsbad region's economy forever. For years, locals collected and sold bat guano as fertilizer from the cave. It was not, however, until Jim White, a local resident, with the aid of Ray Davis and his camera, explored and documented the cave that nonlocals took an interest. Tours began with a 52-m (170-foot) descent in a bucket previously used to haul bat guano out of the cave (Uhler 1995). In 1923, the U.S. Department of the Interior sent inspectors to investigate claims about the caves. In his final report Robert Holley stated, "I am wholly conscious of the feebleness of my efforts to convey in the deep conflicting emotions, the feeling of fear and awe, and the desire for an inspired understanding of the Devine Creator's work which presents to the human eye such a complex aggregate of natural wonders" (National Park Service [NPS] 2023). Carlsbad Caverns were designated a National Monument on October 25, 1923. By 1925, a staircase was built at the cave's natural entrance, ending use of the guano bucket to enter the cave. In 1926, the first trail was built by the NPS, wooden stairs connecting the Main Corridor, King Palace, and Queens Chamber were built, and an electric lightening system was installed through the Main Corridor and Kings Palace. Three elevators were installed in the early 1930s.

Cattle ranching was a major economic influence in the area. Some of the largest ranches included the Hat Ranch, Four Lakes Ranch, and Jal Ranch. The end of the government's open range policy in the 1890s led to the demise of these and other ranching empires established in the 1880s. They were replaced by some smaller cattle operations and sheep ranches but mostly by homesteaders from Texas and the South (Katz 1987).

Oil was discovered in Eddy County in 1909, but the market for it had to wait for an increase in use in heating plants and in automotive vehicles. After Martin Yates, Jr., brought in a well near Artesia in 1923, so much drilling occurred that, by 1938, the southeast corner of the state was "gushing oil," valued then at $32 million annually. Although Carlsbad was on the far edge of the oilfields, it already had a head start as a trading center and thus naturally became a headquarters for some of the companies and workers engaged in petroleum-related industries.

Potash became a major industry for Eddy County in the mid-1920s. "Potash" refers to a variety of salts containing water-soluble potassium acquired through mining or manufacture. The name "potash" is derived from the Old Dutch potaschen, a potassium carbonate (K_2CO_3) that was manufactured by dissolving hardwood ash in solution in iron pots then evaporating the liquid, leaving an ashy residue in the pots. The term "potash" can be applied to potassium carbonate, potassium chloride (KCl), potassium sulfate (K_2SO_4), potassium magnesium sulfate (K_2SO_4-$MgSO_4$), langbeinite ($K_2Mg_2[SO_4]_3$), and potassium nitrate (KNO_3), all of which are commonly referred to as "fertilizer potassium" (Potash and Phosphate Institute 2014). As an element of fertilizer, potash provides a valuable nutrient to plants, improves water retention, and contributes to crop-disease resistance (Boggess 2011). World War II essentially stopped the importation of potash from Germany for processing into fertilizer, thus providing the impetus for exploration of domestic sources of potash. In 1924, Texas Senator Morris Sheppard introduced a bill authorizing additional exploration for potash in Texas and New Mexico (Boggess 2011; Bureau of Mines 1945). A year later, the U.S. Geological Survey (USGS) found potassium-bearing minerals at the Snowden-McSweeney Co.'s McNutt No. 1 Well (Ellis 1929:38). The find led to the formation of the American Potash Company on December 18, 1926. The company, organized by the Snowden McSweeney Company and the Pacific Coast Borax Company, changed its name in 1929 to United States Potash Company to avoid confusion with the American Potash and Chemicals Company in California. The West Mine, the first potash mine built in the Carlsbad area, was constructed in 1931. The HB mine opened its second mine, the HD, in 1933. That same year, the United States Potash Company hired Horace Albright, then serving as director of the NPS, as vice president and general manager. Albright managed the company in Carlsbad and was company president from 1946 to 1956 (Boggess 2011).

The potash industry in the area continued to expand throughout the 1940s in response to World War II and in the 1950s to an increased demand for fertilizer (Boggess 2011). The demand for New Mexico potash continued until inexpensive potash from Canada entered the market in the 1960s. The reduced demand for potash continued into the mid-1980s, with the farming debt crisis in the United States and the introduction of inexpensive Soviet-made fertilizer in the 1990s. The natural gas Enron fiasco of the early 2000s added to this downtrend, leading to the lowest potash prices on record in 2003. Mine companies in the Carlsbad area became subsidiaries of larger companies that were able to absorb temporary financial setbacks, or mines changed hands entirely. Seven producers worked in the Carlsbad area from 1965 to 1982, and by the 1990s the number was reduced to four.

Eddy and Lea Counties

The current survey area is entirely within Eddy County, but the history of Lea County is closely tied to the development of the preceding Eddy County. The two counties continue to evolve together; therefore, a history of both counties is provided.

Eddy County was named for Charles B. Eddy, a rancher in southeastern New Mexico during the last decades of the nineteenth century. It was created in 1889 from the southeastern portion of Lincoln County and encompassed the entire southeastern corner of New Mexico (Beck 1962). Seven Rivers was named the county seat, but during the 1890 election, a referendum changed the seat from Seven Rivers

to Carlsbad (Schroeder and Jenkins 1974). Eddy County was reduced to its current size with the creation of Lea County in 1917 (Beck and Haase 1969; Whisenhunt 1979).

Political struggle over what would become Lea County began in 1912 with the proposal of a new county named Heard County, after Allen C. Heard, founder of the High Lonesome Ranch and the town of Knowles. The proposal was defeated, and the creation of the county not attempted again until 1917 with a suggestion of the name Llano County, after the Llano Estacado. Although the suggestion of the name was defeated, Chaves County agreed to the creation of a new county to its east. The leaders of Chaves County insisted on the name of Lea County, after Captain Joseph Calloway Lea, founder of the New Mexico Military Institute in Roswell. Instrumental in the formation of Chaves County, Captain Lea fought for the county to be named after his friend Colonel J. Francisco Chaves. By naming the new county after Lea, they were returning the favor (Julyan 1996). At the time that it was created from the eastern portions of Chaves and Eddy Counties, Lea County had no railroads, telegraph, newspaper, or major population centers (Hinshaw 1984).

By the late 1800s, along with the town of Eddy, small communities were springing up in the future Eddy County, including Stegman (now Artesia), Loving, and Malaga. In 1889, the town of Eddy changed its name to Carlsbad after the famous European spa Carlsbad, Bohemia (now Karlovy Vary, Czech Republic) (Whisenhunt 1979).

Charles B. Eddy, the namesake of Eddy County, was also the promoter of the Carlsbad Irrigation Project, which turned formerly arid land into fertile farms. The Carlsbad Irrigation District was designated a National Historic Landmark on July 19, 1964. Eddy County is also the site of large oil deposits (the first oil strike was in Dayton in 1909) and some of the world's largest potash deposits. Tourism became significant early on for Carlsbad and continues to play a role in Eddy County's economy, with Carlsbad Caverns National Park drawing 400,000 visitors per year.

In 1924, Van S. Welch, Tom Flynn, and Martin Yates drilled the first commercial oil well in southeastern New Mexico (New Mexico Museum of Art 2010). In the wake of the stock market crash of 1929, New Mexico oil and gas producers gathered to discuss industry issues and concerns. They formed the New Mexico Oil Men's Protective Association, now known as the New Mexico Oil and Gas Association. Despite the nation's financial turmoil, New Mexico's oil industry quickly grew, and by 1932, major pipelines extended into Lea County, transporting oil to eastern markets. In the same year, New Mexico established six refineries manufacturing gasoline, kerosene, heating oil, and road oil—a key factor in the development of New Mexico's first asphalt highways. The market value of oil and gas tripled between 1932 and 1942, and New Mexico's oil and gas industry flourished. At this time, the New Mexico Oil Conservation Commission was established, pioneering the controlled production of oil and gas to prevent unnecessary waste. New Mexico's stance helped Congress form the Interstate Oil and Gas Compact Commission, a government entity designed to regulate the nation's petroleum production (New Mexico Museum of Art 2010).

In 1940, the City of Carlsbad obtained land approximately 10 km (6 miles) southwest of town with the intent of building a municipal airport funded by city bonds and the federal Works Progress Administration. Construction was completed in 1941 (Cranston 2013). In 1942, the Carlsbad Municipal Airport was selected by the War Department as the site of an Army Air Corps training center. Temporary headquarters were established at the old Civilian Conservation Corps camp north of Carlsbad until the Carlsbad Army Airfield officially opened in September 1942. The base was used to train bombardiers and navigators as the first and only low-altitude D-8-type bombardier school in the country. More than 4,000 students attended the air field's training programs between 1942 and its closure in 1945, including two classes from China and the Carlsbad Civil Air Patrol. There are multiple military geoglyph bombing ranges around the Carlsbad area, some featuring swastikas, factories, ships, and bull's-eyes that can

be plainly seen from the air but look like dirt mounds on the ground (Birchell 2010:84–87). After the air field's closure on September 30, 1945, most of the buildings and associated structures were sold and moved or relocated for use elsewhere.

Oil and gas development continued, and between 1952 and 1962 additional pipelines were built from the gas fields of northwestern New Mexico to West Coast markets. With distribution channels coast to coast, New Mexico's oil and gas industry thrived and is still active in Eddy and Lea Counties today (New Mexico Museum of Art 2010). Oil and gas development continues to play a dominant role in the region's economy. Eddy County relies heavily on resource extraction, with rich oil and gas deposits and some of the largest potash deposits in the United States. Carlsbad has become the headquarters for several companies and employees engaged in mining and related services. Lea County, sometimes called the "Energy Plex," is one of the state's leading producers of oil and gas. In Eddy and Lea Counties, the mining industry supports the most jobs of any industry (16 and 22 percent, respectively).

Gone are the cattle barons that owned from 15,000 to 50,000 head of cattle or the "big" sheepmen that owned as many as half a million head. The cattle industry, however, still maintains a presence in the region. The large ranches have been replaced by smaller operations; only a few ranchers own more than 3,000 cows and/or 10,000 to 20,000 sheep. Other industries flourishing in the area include agriculture and the dairy industry; in addition, Lea County is home to a state correctional institution (Lea County 2023).

The once small farming community of Artesia now boasts one the few residential training sites of the Federal Law Enforcement Training Center, mostly for U.S. Border Patrol Agents and U.S. Air Marshals. The training center is on the former campus of the College of Artesia, which operated from 1966 to 1971. The Navajo Refinery built in 1960 at Artesia is the largest oil refinery in New Mexico, with the capacity to produce 100,000 barrels a day (Center for Land Use Interpretation 2023).

White's City (named for a Kentucky homesteader, not the White that explored the Carlsbad Caverns), through which tourists have to pass on their way to or from Carlsbad Caverns, is fast becoming a tourist center. People from all over the world send Valentines to be hand stamped at Loving. About 40 km (25 miles) north of Carlsbad, Illinois Camp, site of the first oil discovery east of the Pecos River in 1924, consists of a refinery and a few residents. The same can be said for Loco Hills and Maljamar, settlements that also began as oil camps in the late 1920s. Oil still dominates the Loco Hills and Maljamar economies.

Hobbs, founded in 1907 by a chance meeting between two covered wagons on a trail across the Llano Estacado plain, grew quickly with the discovery of oil in 1928. In 1930, the U.S. Census designated Hobbs the fastest-growing town in America. Today, the Hobbs area continues to dominate New Mexico's oil production (Lea County 2023). In 2006, Hobbs accounted for about 70 percent of all the oil pumped in the state.

CHAPTER 3. PRE-FIELD INVESTIGATIONS AND FIELD METHODS

PRE-FIELD INVESTIGATIONS

An SWCA archaeologist conducted records searches on March 28, 2023, using the New Mexico Cultural Resource Information System (NMCRIS) database maintained by the New Mexico Historic Preservation Division (HPD). Database records were searched for previously recorded archaeological sites, properties, districts, historical markers, and previously conducted archaeological surveys in and within 400 m (0.25 mile) of the survey area (in accordance with BLM standards). The HPD and NRHP database records searches were concurrently conducted for properties listed in the NRHP and/or the State Register of Cultural Properties within 400 m (0.25 mile) of the survey area. Results of the records searches showed that 25 previous investigations (Appendix A) have been completed within 400 m (0.25 mile) of the survey area. In total, seven previously recorded sites (Appendix A) were within 400 m (0.25 mile) of the survey area. Records search data are summarized in Appendix A. Additionally, the BLM CFO specified that any site within 100 feet of the APE should be visited and updated.

FIELD METHODS

A 100 percent (Class III) pedestrian cultural resources survey was conducted by two SWCA archaeologists walking parallel transects spaced no more than 15 m (50 feet) apart. The total survey acreage was 18.34 ha (45.40 acres) on BLM CFO land. The investigation of the proposed project area and site recording were conducted between May 2 and 18, 2023. Elizabeth Lemus served as the field supervisor, and Jacob Borchardt served as supporting field crew.

Field protocol dictates that the recording of cultural locations be initiated with the pin flagging of artifacts and other cultural manifestations. IMs were defined as nine or fewer artifacts, an isolated feature with no potential for dating, or manifestations that are not related to other nearby IMs or sites. Archaeological sites are defined as locations dating to an age, or likely age, of 50 years (pre-1973) or more that contain 10 or more artifacts or as a feature or features associated with any artifacts meeting the 50-year age criterion.

Cultural locations were described and recorded according to current archaeological standards using ODK Collect and Field Maps Mobile software. ODK Collect documents archaeological data (artifacts, features, etc.), and Field Maps Mobile is used to record spatial data (site and survey boundaries, IMs, and features). Both programs were run on Samsung Galaxy Android tablets connected to a Juniper Geode GPS receiver. Resource recording consisted of preparing a plan map (post-field, using GPS data), taking photographs, completing a New Mexico Laboratory of Anthropology (LA) site form, recording all artifacts and features, and recording resource boundaries with the GPS system. All GPS data were collected using submeter accuracy.

All cultural resources were assessed for NRHP eligibility in accordance with BLM CFO resource standards (BLM 2012). Eligibility recommendations need to be well supported with documentation that addresses criteria for evaluation including the following:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, as well as the following criteria:

Criterion A: Sites that are associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B: Sites that are associated with the lives of persons significant in our past; or

Criterion C: Sites that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D. Sites that have yielded or may be likely to yield information important in prehistory or history.

In the case of newly recorded cultural resources, all surficial artifacts and features were individually flagged, diagnostic artifacts were point located (PL), and the PL artifacts and features were recorded using a GPS unit with submeter capabilities. For any debitage found, maximum flake size in 1-cm increments (e.g., 0–1 cm, 1–2 cm, 2–3 cm), percent cortex, and material type were recorded. For any ground stone, stone-tool manufacturing artifacts, and lithic tools found, type (e.g., mano, projectile point, core, metate, biface); maximum length, width, and thickness (in cm); completeness (broken or complete); material; and percent cortex were recorded. Recorded ceramic attributes include ware, type, form (e.g., bowl, jar, plate), and portion (e.g., rim, body). All projectile points and other formal tools were photographed with a centimeter scale. Other objects, including ceramics, bifaces, and ground stone, were photographed to illustrate assemblage diversity. If identified, diagnostic projectile points were to be collected and deposited with the BLM CFO with the information data tags to associate the artifact with the exact day and place it was recovered.

If 100 or fewer artifacts are observed at a site, all surface artifacts are recorded. At sites with more than 100 artifacts, concentrations are defined, and a representative sample of artifacts are fully recorded, as described above, for at least 100 artifacts per artifact type. All lithic tools and ground stone artifacts, as well as features, were fully recorded. All field records from the survey are on file at SWCA's Albuquerque, New Mexico, office (see Chapter 1 for contact information).

CHAPTER 4. SURVEY RESULTS

SWCA surveyed a 30.4-m (100-foot) cultural buffer around the remediation APE for a total of 18.34 ha (45.50 acres) on lands managed by the BLM CFO in Eddy County, New Mexico. Three previously recorded cultural resources (LA 37857, LA 86207, and LA 122397) were revisited within the project APE. A site visit and updated recordings of the three previously recorded cultural resources were completed by SWCA archaeologists. Three new archaeological sites (LA 203097, LA 203098, and LA 203099) were observed and recorded during the current investigation. Sixteen IMs were observed and recorded during the investigations.

PREVIOUSLY RECORDED SITES

LA 37857

Additional Site Numbers: NMAS 5347 (New Mexico Archaeological Services, Inc. [NMAS])

Universal Transverse Mercator (UTM)/PLSS Data: See Appendix A

USGS: Phantom Banks (32103-A7)

County: Eddy

Elevation: 926.22 m (3,038.78 feet) amsl

Landowner: BLM CFO

Cultural Affiliation and Age: Unknown Aboriginal, unspecified Prehistoric to unspecified Historic (9500 B.C.–A.D. 1550)

Site Type: Artifact scatter with features

Size: 1,779.28 square meters (m^2) (19,151.99 square feet, or 0.44 acre)

NRHP Eligibility: Not eligible

Management Recommendations: No further management is recommended.

Previous Investigation

LA 37857 was originally recorded by New Mexico Archaeological Services, Inc. (NMAS), in August 1982 under NMCRIS Activity Number (No.) 466. The site measured 60 × 75 m (197 × 246 feet) and was described as a discrete activity area that included a single lithic artifact concentration and a light scatter of lithic debris, burned caliche, and fragments of freshwater mussel shells. Haskell (1982) describes the site as being located within a dunal environment with the majority of the surface manifestation appearing within the blown-out areas. The site was subjected to extensive alluvial erosion. An east-west jeep road intersected the site along the north side. The lithic artifacts observed included chert and quartzite flakes, a single ground stone fragment, a quartzite hammerstone, and a low density of dispersed burned caliche cobbles and gravels. The site was assigned to the Unknown Aboriginal, unknown prehistoric to unknown historic (9500 B.C.–A.D. 1993) cultural/temporal affiliation due to the lack of diagnostic cultural materials (Haskell 1982).

A second site visit was conducted by the Agency for Conservation Eastern New Mexico University (ENMU) in 1985 under NMCRIS 10841. Information on this site visit is not currently available on the NMCRIS database website.

CURRENT INVESTIGATION

SWCA archaeologists revisited LA 37857 on May 3, 2023. The site is a low-density artifact scatter, located immediately west of a lease road and north of an inactive oil pad in a residual dune field with minimal remaining deposition (Figure 4-1 through Figure 4-6; Appendix A: Figure A.1 and Figure A.2). The original site boundary on NMCRIS is plotted approximately 50 m (164 feet) southeast of the current mapped location. This location was plotted by hand in the 1980s and submitted with minimal additional description. The site was not located in the plotted location; therefore, a 200-m-wide (656-foot-wide) area in and around the original plotted site boundary was thoroughly checked. During this additional survey, a site that matches the description in the original site form was located; therefore, the site boundary was fully updated to match the correct area. The current new site boundary measures 29.00 × 60.00 m (95.14 × 196.85 feet). Desert Scrubland vegetation, such as creosote bush, honey mesquite, sumac, silver leaf nightshade, tar bush, and various grasses, obscures ground visibility to approximately 76 to 99 percent.

Overall, LA 37857 is in poor condition and was observed to be approximately 1 to 25 percent intact. Site disturbances consist of water and wind erosion in the vicinity of the site. Cultural materials appear surficial, and the sole observed feature is heavily deflated. A trowel test was placed within feature 1, a fire-cracked rock concentration, and did not locate any additional subsurface FCR or carbon staining, and three shovel tests excavated within the site were negative for cultural material. All materials were observed within deflated interdunal areas.

Figure 4-1. Overview of original LA 37857 plotted location. Site not observed in location, facing north (Roll 80772, Frame T18-0627).

Figure 4-2. Overview of original LA 37857 plotted location. Site not observed in location, facing east (Roll 80772, Frame T18-2536).

Figure 4-3. LA 37857, site overview in updated location from northern boundary showing oil pad visible to the south, facing southwest (Roll 80772, Frame T18-5139).

Figure 4-4. LA 37857, site overview in updated location showing dirt road just east of the site boundary, facing north (Roll 80772, Frame T18-4349).

Figure 4-5. LA 37857, site overview in updated location from southwest corner showing pumpjacks and utility lines in the background, facing north (Roll 80772, Frame T18-0176).

Figure 4-6. LA 37857, site overview in updated location with the feature in the foreground, facing east (Roll 80772, Frame T18-6603).

FEATURES

A single FCR concentration (Figure 4-7 and Figure 4-8) was recorded at the site as Feature 1 (F1). F1 measured approximately 9 × 2 m (30 × 7 feet). The feature is heavily dispersed and does not appear intact. The FCR concentration includes approximately 50 pieces of burned caliche cobbles that range between 5 to 10 cm (2–4 inches) in diameter. There is one ground stone fragment associated with the feature. A trowel test was dug at F1 and did not locate any additional subsurface FCR or carbon staining. The feature likely does not retain any integrity and would not be a good candidate for radiocarbon testing.

Figure 4-7. LA 37857, F1, overview of a FCR concentration, facing east (Roll 80772, Frame T18-6603).

Figure 4-8. LA 37857, F1, overview of a FCR concentration, facing east (Roll 80772, Frame T18-7346).

MATERIALS IDENTIFIED

SWCA analyzed and recorded 100 percent of the artifacts observed in the surface assemblage. The artifact assemblage consists of 31 artifacts, including lithic debitage, ground stone tools, a hammerstone, and a core. The debitage includes 11 pieces of chert, limestone, and quartzite, mostly ranging in size from 1 to 5+ cm in length (Table 4-1). The core is from chert source material and measures between 5 to 10 cm, whereas the hammerstone is from a limestone material, measures approximately 7 cm in diameter, and shows signs of a modified edge and pecking (Table 4-2; Figure 4-9). The hammerstone was point located as PL 1. A total of 18 ground stone tools were recorded. Most of the ground stone were fragments. However, there were three complete one-handed manos recorded (Table 4-3; see Figure 4-9). No diagnostic artifacts were identified during the current investigation.

Although marine shell fragments documented during the original recording were not reidentified, a marine shell fragment was recorded as an IM (IM 2) approximately 155 m (509 feet) southwest of the site boundary. The presence of this material is common in Formative period occupations.

Table 4-1. Debitage Observed at LA 37857

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Chert	Broken cortical flake	–	–	1	1	–	–	**2**	**4**
	Cortical shatter	1	–	1	–	–	–	**2**	
Limestone	Whole cortical flake	–	–	–	–	–	1	**1**	**2**
	Broken cortical flake	–	–	–	–	1	–	**1**	
Quartzite	Whole cortical flake	–	–	–	–	–	2	**2**	**5**
	Broken cortical flake	–	–	–	–	1	1	**2**	
	Broken noncortical flake	–	–	1	–	–	–	**1**	
		1	**–**	**3**	**1**	**2**	**4**	**11**	**11**

Table 4-2. Flaked Stone Manufacturing Artifacts Observed at LA 37857

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
1	Limestone	Hammerstone	7	Pecking present and one edge slightly modified
	Chert	Core	5–10	Medium-grained, multidirectional core with cortex present
Total				**2**

Table 4-3. Ground Stone Tools Artifacts Observed at LA 37857

Type	Condition	Material	Size Class (cm)	Description
Unknown fragment	Lateral section	Limestone	6 × 5 × 3	Pecking and striations present
Unknown fragment	End section	Limestone	5 × 4 × 3	Pecking and striations present
Unknown fragment	End section	Limestone	9 × 4 × 3	Pecking, crushing, and striations present Broken in two places
Unknown fragment	End section	Limestone	4.5 × 4 × 3	Pecking, crushing, and striations present
One-handed mano	Complete	Limestone	12 × 9 × 2	Striations present
Unknown fragment	End section	Sandstone	3 × 2 × 1	Striations present

Type	Condition	Material	Size Class (cm)	Description
One-handed mano	Complete	Sandstone	16 × 7.5 × 6	Striations present
Unknown fragment	Medial section	Sandstone	13 × 7 × 3	Polishing and striations present
Unknown fragment	End section	Limestone	7 × 5 × 3	Pecking, crushing, and striations present
Unknown fragment	End section	Sandstone	10 × 5 × 2.5	Associated with Feature 1 (F1) Crushing, polishing, and striations present
Unknown fragment	End section	Sandstone	8 × 4 × 1.7	Associated with F1 Pecking, crushing, and striations present
Unknown fragment	End section	Sandstone	9 × 6 × 1	Associated with F1 Pecking and crushing present
Unknown fragment	End section	Sandstone	7 × 6 × 4	Associated with F1 Polishing and striations present
Unknown fragment	End section	Sandstone	8 × 4.5 × 1	Associated with F1 Polishing and striations present
Unknown fragment	Medial section	Limestone	4 × 4 × 4	Associated with F1 Pecking, polishing, and striations present
One-handed mano	Complete	Limestone	12 × 10 × 2.5	Pecking, crushing, and striations present
Unknown fragment	Medial section	Quartzite	9 × 5 × 2.5	Striations present
Unknown fragment	Medial section	Sandstone	5 × 4 × 3	Pecking and striations present
Total				**18**

Figure 4-9. LA 37857, PL 1, hammerstone showing signs of pecking, side A (Roll 80772, Frame T66-8526).

SHOVEL TESTS

Three shovel tests (ST 1–ST 3) were excavated throughout the site boundary and a single trowel test (TT 1) were dug within F1 to test for potential intact subsurface deposits (Table 4-4). Trowel tests are requested by the BLM CFO when it is unclear if a feature retains any subsurface integrity. Shovel tests were 50 × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were

encountered. All shovel tests and the trowel test were negative for subsurface cultural deposits. Photographs of shovel tests are found in Figure 4-10 through Figure 4-12, and a photograph of the trowel test is found in Figure 4-13.

Table 4-4. Shovel Tests conducted at LA 37857

Shovel Test (ST)/Trowel Test (TT)Number	Positive/Negative	Depth (cmbs)	Shovel Test Description
ST 1	Negative	15	0–6 cmbs: 7.5YR 6/6 eolian sand 6–15 cmbs: 7.5YR 7/6 consolidated loamy sand Approximately 20 percent calcar filaments Terminated because of compaction
ST 2	Negative	23	0–7 cmbs: 7.5YR 6/6 eolian sand 7–23 cmbs: 7.5YR 6/6 consolidated loamy sand Approximately 20 percent calcar filaments Terminated because of compaction
ST 3	Negative	20	0–7 cmbs: 7.5YR 6/6 eolian sand 7–20 cmbs: 7.5YR 6/6 consolidated loamy sand Approximately 15 percent calcar filaments Terminated because of compaction
TT 1	Negative	5	Trowel test executed in Feature 1 (F1) No cultural material subsurface present

Notes:
cmbs = centimeters below surface
ST = Shovel test
TT = Trowel test

Figure 4-10. LA 37857, ST 1, post-excavation overview, facing north (Roll 80772, Frame T18-6478).

Figure 4-11. LA 37857, ST 2, post-excavation overview, facing north (Roll 80772, Frame T18-6893).

Figure 4-12. LA 37857, ST 3, post-excavation overview, facing north (Roll 80772, Frame T18-8343).

Figure 4-13. LA 37857, Trowel test 1, post-excavation overview, facing northeast (Roll 80772, Frame T18-9417).

SITE CHRONOLOGY

Diagnostics artifacts and intact features were not observed at LA 37857; hence, the cultural/temporal affiliation of the site is unknown and has been assigned to an Unknown Aboriginal cultural affiliation, between an unspecified Prehistoric to an unspecific Historic period (9500 B.C.–A.D. 1550).

SITE SUMMARY AND INTERPRETATION

LA 37857 is a small prehistoric site with a low-density artifact scatter in a residual dune field. The high frequency of ground stone artifacts and the presence of a deflated thermal feature suggest that LA 37857 was potentially used as a temporary camp or activity area for resource processing. While the freshwater mussel shell was not found during the current investigation, the shell does indicate resource exploitation of nearby streams found within the Ross Draw Phantom Banks area. The tasks at the site are likely centered on cooking. The presence of the hammerstone and low-density lithic debris does suggest that some lithic manufacturing/maintenance was conducted; albeit, at a low scale.

ELIGIBILITY RECOMMENDATIONS

LA 37857 has not previously been reviewed for eligibility to the NRHP by the BLM or SHPO. The site is not associated with a significant event or person and is therefore not eligible under Criterion A or Criterion B, respectively. The site does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction and is therefore not eligible under Criterion C. SWCA observed a sparse artifact scatter with a single feature that was not intact. In addition, three shovel tests and one trowel test were negative for subsurface cultural materials. Given the impacts from water and wind erosion and the oil and gas industry and the lack of evidence for

subsurface cultural deposits, the site is not likely to provide important information on subsistence, seasonality, or technological information concerning the prehistoric occupation of southeastern New Mexico (Criterion D). Thus, SWCA recommends LA 37857 not eligible for listing to the NRHP.

MANAGEMENT RECOMMENDATIONS

Currently the site is 7.11 m (23.33 feet) north of the most northern RDU 11 inadvertent release. Although the site is not directly impacted by the spill, the remediation may impact the site. LA 37857 is recommended not eligible for listing in the NRHP under any criteria by SWCA and no further management is recommended.

LA 86207

Additional Site Numbers: PAC/ED-425 (Pecos Archaeological Consultants [PAC])

UTM/PLSS Data: See Appendix A

USGS: Phantom Banks (32103-A7) and Ross Ranch (32103-A8)

County: Eddy

Elevation: 917.67 m (3,010.73 feet) amsl

Landowner: BLM CFO

Cultural Affiliation and Age: Jornada Mogollon, Late Pithouse (A.D. 750–1100); Early Pueblo (A.D. 1100–1175)

Site Type: Artifact scatter with features

Size: 89,970.38 m^2 (968,432.17 square feet, or 22.22 acre)

NRHP Eligibility: Eligible, Criterion D (HPD Log No. 72596, dated 10/26/2004)

Management Recommendations: Avoidance

Previous Investigation

LA 86207 had been recorded four times before the current visit. The original recording was completed by Pecos Archaeological Consultants (PAC) in January 1991 under NMCRIS Activity No. 36790 (Hunt 1991). The site measured 500 × 400 m and was described as a temporary camp locale composed of surface artifacts and thermally altered rock scatters. The site was described as a dune blowout approximately 8 km (5 miles) east of the Pecos River. Disturbances observed include erosion caused by alluvial and eolian processes and cattle grazing. The artifact assemblage was reported to be composed of hundreds of lithic debitage flakes, cores, several concentrations of thermally altered quartzite cobbles, ground stone fragments, and three distinct pottery types, including Chupadero Black-on-white, El Paso Plain, and Jornada Brown. One semi-intact circular feature was also noted during the original recording. (Hunt 1991).

The second recording was completed by Desert West Archaeological Services in May 1997 under NMCRIS Activity No. 56412 (Wilcox 1997). The primary disturbances noted were water and wind erosion, bioturbation, and construction/land development, and the site was recorded as being 76 to 99 percent intact. Desert West Archaeological Services noted a similar artifact assemblage to the original 1991 recording. The site boundary was adjusted to account for the distribution of the surface artifacts and significantly decreased in size during the May 1997 visit. (Wilcox 1997). Desert West Archaeological Services does not mention or show on the site map if the original feature was observed.

The third site recording was completed by Southern New Mexico Archaeological Services, Inc. (SNMAS), in June 1998 under NMCRIS Activity No. 61414 (Sanders 1999). The investigators

reported the site was 51 to 75 percent intact with wind and water erosion representing the main impacts. Also noted was the artifact assemblage was different than previous investigations. SNMAS identified a scatter of lithic artifacts and fire-cracked rock. There were several disarticulated hearths observed as well. Previous investigations also found ground stone fragments and three different types of ceramic sherds. No ground stone or ceramics were observed during the 1998 visit.

SWCA visited the site in January 2023 under NMCRIS Activity No. 152297. SWCA identified LA 86207 within its originally plotted area; however, the site boundary was adjusted to reflect the distribution of artifacts observed at that time. The site was observed to be in good condition with minor impacts to most of the site by natural and human-made disturbances. The area along the eastern boundary of the site had the highest impacts from construction of a new well pad. The site boundary did not alter from the construction of the well pad but there were disturbances to the south of the pad caused by construction and vehicle traffic that impacted the eastern portion of the site surface. The observed artifact assemblage at LA 86207 consists of a general surficial scatter that has a total assemblage estimated to contain more than 500 artifacts with 119 analyzed and recorded. Observed prehistoric artifacts include lithic debitage, two edge-modified flake tools, one basin metate fragment, one mano fragment, one unknown ground stone implement, one tested cobble, four cores, and three undifferentiated brown ware ceramic body sherds. No features were observed. Thirteen shovel tests were excavated during the January 2023 investigation. All excavated shovel tests yielded negative results for subsurface cultural materials. In accordance with guidance from the BLM CFO, the shovel tests were restricted to portions of the site that fell within the survey area for the inadvertent release.

CURRENT INVESTIGATION

SWCA archaeologists revisited this site on May 10, 2023 (Figure 4-14 through Figure 4-17; Appendix A: Figure A.3; see Appendix A:Figure A.1). LA 86207 is a large prehistoric site consisting of a burned rock midden and an FCR concentration. SWCA archaeologists conducted a site update visit and confirmed that there were no changes to the artifact assemblage. The site is within a dune blowout and measures 445.00 × 350 m (1459.97 × 1,148.29 feet). It is devoid of an overstory, although shinnery oak, broom snakeweed, and small grasses comprise the understory.

The site is in good condition, estimated at 51 to 75 percent intact. Since the last site visit by SWCA in January 2023, the site has continued to be impacted by wind and water erosion. An active drainage runs along the southern extremity. Wind erosion at the site's eastern extremity has exposed two new features that were fully recorded in the field during the May 2023 investigation. These two features were located outside the disturbance caused by the well pad construction and were exposed by natural erosion. The rest of the site remains as recorded previously. Three shovel test units (ST 1–ST 3) and one trowel test (TT 1) were excavated during this investigation to determine whether the site has intact subsurface cultural deposits. Two shovel tests were placed within the newly updated boundary created by SWCA in January 2023, where the project APE and survey area intersect the site, and a third shovel test was placed in the old 1997 boundary, where it intersects the survey area, to confirm that there were no subsurface cultural deposits. All three shovel tests were negative for cultural materials. The trowel test was placed in the newly discovered Feature 1 (F1) and was positive for buried FCR at 6 centimeters below surface (cmbs).

Figure 4-14. LA 86207, overview of site from south boundary, facing north (Roll 80772, Frame T18-9072).

Figure 4-15. LA 86207, overview of site from west boundary, facing east (Roll 80772, Frame T18-2634).

Figure 4-16. LA 86207, overview of site from north boundary, facing south (Roll 80772, Frame T18-5018).

Figure 4-17. LA 86207, FCR and lithics actively eroding into a wash, facing southwest (Roll 80772, Frame T18-6631).

FEATURES

In 1991, a single semi-intact circular feature was identified and recorded by PAC (Hunt 1991). It was not provided a feature number and has not been relocated since the initial documentation. No other features have been identified on this site until the most recent update in June 2023.

SWCA recorded one FCR concentration (F1) and one burned rock midden (F2) features at the eastern extremity of the site that appeared to be recently exposed by wind erosion. Neither F1 nor F2 appear to be the original feature located in 1991 by PAC.

F1 measures 3.0 × 2.1 m and contains approximately 35 pieces of burned rock ranging from 10 to 20 cm in diameter (Figure 4-18 and Figure 4-19). A pin flag was used to see the depth of the features and penetrated down to 7 cmbs. A trowel test (TT 1) was placed in the feature and exposed buried FCR at 6 cmbs.

Figure 4-18. LA 86207, F1, overview of FCR concentration, facing west (Roll 80772, Frame T18-2964).

Figure 4-19. LA 86207, F1, overview of FCR concentration with pad in background, facing northeast (Roll 80772, Frame T18-6388).

F2, the burned rock midden, measures approximately 8.4 × 4.3 m and includes over 200 pieces of FCR (Figure 4-20 and Figure 4-21). Each piece ranges between 5 to 20 cm in diameter. Artifacts that were observed associated with the features include five chert flakes with cortex, measuring 2 to 3 cm, and two limestone ground stone fragments. Both showed evidence of grinding on one side. Artifacts were noted but not recorded during this visit. The soil is a 7.5YR 6/3 loamy sand that was recently exposed. Based on BLM CFO consultation for testing features, no trowel test was placed in or around F2, since testing was already conducted in F1, and intact subsurface deposits were observed.

Figure 4-20. LA 86207, F2, burned rock midden with oil infrastructure visible in the background, facing north (Roll 80772, Frame T18-7924).

Figure 4-21. LA 86207, F2, burned rock midden, facing north (Roll 80772, Frame T18-2661).

MATERIALS IDENTIFIED

During the current investigation in May 2023, SWCA observed no changes in the artifact assemblage recorded during the January 2023 recording, with an estimated total of 600 artifacts in the assemblage. During the January 2023 recording, a representative 20 percent sample of 119 artifacts were recorded at LA 86207, which included lithic debitage, lithic tools, ground stone implements, and ceramics. All five Point-located artifacts were located and consist of: two edge-modified flake tools (PL 1 and PL 5), one basin metate fragment (PL 4), one mano fragment, one unknown ground stone implement, one tested cobble, four cores, and three undifferentiated brown ware bowl sherds (PL 2 and PL 3) were located during the current site update.

SHOVEL TESTS

Three shovel tests (ST 1–ST 3) and a single trowel test (TT 1) were excavated within the site boundary to test for potential intact subsurface deposits (Table 4-5). The trowel test was placed within F1 and was positive for buried FCR at 6 cmbs. The three shovel tests (ST 1–ST 3) were placed within the site boundary where the project APE and survey area intersected to see whether any subsurface deposits were present that might be impacted by the project. Two shovel tests were placed within the newly updated boundary created by SWCA in January 2023, and a third shovel test was placed in the old 1997 boundary. All three shovel tests were negative for cultural materials. Shovel tests were 50 × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were encountered. All shovel tests were negative for subsurface cultural deposits. Photographs of the shovel tests are found in Figure 4-22 through Figure 4-25.

Table 4-5. Shovel Tests conducted at LA 86207

Shovel Test Number	Positive/Negative	Depth (cmbs)	Shovel Test Description
ST 1	Negative	44	0–17 cmbs: 7.5YR 6/6 eolian sand 17–44 cmbs: 7.5YR 7/6 consolidated loamy sand Approximately 50 percent calcium carbonate filaments Terminated because of compaction
ST 2	Negative	47	0–10 cmbs: 7.5YR 6/6 eolian sand 10–47 cmbs: 7.5YR 6/6 compact sand Approximately 15 percent calcium carbonate filaments Terminated because of compaction
ST 3	Negative	30	0–15 cmbs: 7.5YR 6/6 eolian sand 15–30 cmbs: 7.5YR 6/6 compact loamy sand Approximately 15 percent calcium carbonate filaments Terminated because of compaction
TT 1	Positive	6	Trowel test executed in Feature 1 (F1) FCR exposed at 6 cmbs

Figure 4-22. LA 86207, ST 1, post-excavation overview, facing east (Roll 80772, Frame T18-8807).

Figure 4-23. LA 86207, ST 2, post-excavation overview, facing northeast (Roll 80772, Frame T18-8659).

Figure 4-24. LA 86207, ST 3, post-excavation overview, facing west (Roll 80772, Frame T18-8174).

Figure 4-25. LA 86207, TT 1, post-excavation overview, facing northwest (Roll 80772, Frame T18-4399).

SITE CHRONOLOGY

During the first visit by PAC in 1991, LA 86207 was determined to have a temporal and cultural affiliation from the Mogollon (Jornada)/Mixed Ancestral Puebloan and Mogollon, Late Pithouse (A.D. 750–1100) to Early Pueblo (A.D. 1100–1200). The following investigations by Desert West Archaeological Services, SNMAS, and SWCA (January 2023) concurred with the original temporal and cultural designation. During the May 2023 investigations, SWCA did not find any diagnostic artifacts that would cause a change in the temporal and cultural designation and therefore agrees with previous assessments.

SITE SUMMARY AND INTERPRETATION

LA 86207 is a large prehistoric artifact scatter within a dunal environment. The artifact assemblage observed during the current investigation suggests that LA 86207 was potentially used as a temporary camp or activity area where lithic tool manufacturing/maintenance, resource exploitation, and resource processing were taking place. The site is estimated to have an artifact assemblage of more than 600 artifacts on the surface.

ELIGIBILITY RECOMMENDATIONS

Following the previous recordings, LA 86207 was previously determined eligible under Criterion D for information potential by the BLM (HPD Log No. 72596, dated 10/26/2004) and SHPO (HPD Log No. 23249, dated 08/30/1991; HPD Log No. 53511, dated 090/8/1997; and HPD Log No. 53271, dated 08/01/1997). During consultation with the BLM in both January, SWCA only recorded artifacts within the survey area around an inadvertent release. SWCA recommended that the site stay eligible for listing to the NRHP under Criterion D since additional testing along the western portion of the site could provide further research. Further consultation with the BLM CFO for the May 2023 survey concluded only a quick update be conducted during the May 2023 site visit and that shovel tests only needed to be excavated in the portions of the site that fell within the current survey area, with a special focus on the APE. While the features did not retain any subsurface deposits, additional testing is recommended within the western portion of the site. Thus, SWCA agrees with the previous eligibility determination on file.

MANAGEMENT RECOMMENDATIONS

LA 86207 is eligible for listing in the NRHP under Criterion D. LA 86207 is 593.61 m (1,947.54 feet) west of the RDU 11 inadvertent releases and will not be directly impacted by the spill. The proposed path of investigation is 38.73 m (127.08 feet) north of the site and collecting core samples will have no effect on the site. SWCA recommends continued avoidance, and no further management is required.

LA 122397

Additional Site Numbers: SNMAS-98-155-3 ([SNMAS])

UTM/PLSS Data: See Appendix A

USGS: Phantom Banks (32103-A7)

County: Eddy

Elevation: 922.50 m (3,026.57 feet) amsl

Landowner: BLM CFO

Cultural Affiliation and Age: Archaic, Late Archaic to early transitional temporal period (1500 B.C.–A.D. 200); Mogollon, Early Pithouse to Late Pueblo (A.D. 200–1400)

Site Type: Artifact scatter with features

Size: 54711.6 m^2 (588,910.19 square feet, or 13.51 acre)

NRHP Eligibility: Eligible, Criterion D (HPD Log No. 83067, dated 11/08/2007)

Management Recommendations: SWCA recommends avoidance of the site and that a cultural monitoring of any ground disturbance within 30 m (100 feet) of the site. SWCA also recommends fencing be placed to the north of the path of investigation.

Previous Investigation

LA 122397 was originally recorded by SNMAS in June 1998 under NMCRIS Activity No. 61414. The site measured 100 × 55 m and was described as a temporary base camp (Sanders 1999). The site assemblage consisted of lithic debitage, cores, ground stone, and mussel shell, with a general surface scatter of FCR throughout the area. No features were recorded during this initial investigation. The site was recorded as being 26 to 50 percent intact with wind and water erosion being the primary disturbance sources.

A second site visit was conducted by Boone Archaeological Services (Boone) in October 2007 under NMCRIS Activity No. 107997. Boone noted that a single piece of an undifferentiated brown ware sherd was also present in the artifact assemblage. A single feature (Feature 1) was also observed and recorded by Boone. The feature consisted of a charcoal enriched stain with 42 pieces of FCR. The stain was noted to extend over a 1.5 × 1.0–m area with up to 6 cm of charcoal enriched deposits in the feature (Pangburn and Youngberg 2007).

CURRENT INVESTIGATION

SWCA archaeologists revisited LA 122397 (Figure 4-26 through Figure 4-32; Appendix A:Figure A.4; see Appendix A:Figure A.1) on May 17, 2023. The site is a large prehistoric site consisting of an artifact midden and a buried burned rock midden, measuring 170 × 300m (557.74 × 984.25 feet). The site occurs on a large sand hill covered in eolian dunes. It is bounded to the east, west, and south by graded access roads, from which artifacts are actively eroding. There are two plotted locations for LA 122397. One is an ARMS boundary found on the NMCRIS database, and the second is from a BLM CFO site boundary layer. The site boundaries overlap each other but are not exact. The current investigation expanded the site boundary in all directions and now includes both original plots completely within the new boundary. A surface pipeline runs along the road to the east. The site occurs approximately 15 m (52 feet) west of LA 203098 and is approximately 34 m (112 feet) northwest of LA 204097. These other sites are likely part of a contemporaneous occupation but have been split because of oil and gas activities surrounding the sites. Vegetation is predominantly mesquite, and the ground surface visibility is high; however, at the base of the hill, visibility is intermittently impacted by patches of grass and creosote bush. Hill slope is estimated to be approximately 6 percent on all sides. Surface visibility is excellent, approximately 76 to 99 percent, with some areas obscured by honey mesquite, creosote bush (at margins), sumac, salt bush, bear grass, other various grasses, and silverleaf nightshade.

Two features were identified and recorded at LA 122397. Feature 1 (F1) is an artifact midden and Feature 2 (F2) is a buried burned rock midden (hearth). However, neither appears to be the Feature 1 that was recorded by Boone on October 26, 2007.

LA 122397 is in good condition and estimated to be 51 to 75 percent intact. The site has been impacted by construction/land development and water and wind erosion. The site is actively eroding from a stable dune field/sand hill and is primarily impacted by wind and water erosion. The site is likely associated with nearby prehistoric sites recorded to the east and west, but these connections are interrupted by road scrapes to the south, east, and west, as well as occurrences of stable sand sheets.

The presence of an intact sand sheet in the area indicates a high probability of additional subsurface material throughout the site. Four shovel test units and one trowel test were excavated during this investigation to determine whether the site has intact subsurface cultural deposits. One shovel test (ST 1) and one trowel test (TT 1) were positive for cultural materials. Sand sheets recorded a depth of greater than 50 cm when tested within the APE.

Figure 4-26. LA 122397, site overview from north boundary showing slight slope to the south, facing southeast (Roll 80772, Frame T18-4151).

Figure 4-27. LA 122397, site overview from east boundary showing dense vegetation, facing northwest (Roll 80772, Frame T18-6672).

Figure 4-28. LA 122397, site overview from highest point on site, facing west (Roll 80772, Frame T18-3647).

Figure 4-29. LA 122397, access road defining west boundary, facing south (Roll 80772, Frame T18-6731).

Figure 4-30. LA 122397, access road defining south boundary, facing south (Roll 80772, Frame T18-6669).

Figure 4-31. LA 122397, road defining eastern boundary, facing southwest (Roll 80772, Frame T18-3071).

Figure 4-32. LA 122397, site overview from southern boundary, facing north (Roll 80772, Frame T18-5985).

FEATURES

Two features were identified and recorded at LA 122397, F1 is an artifact midden and F2 is a buried burned rock midden (hearth). Neither of the features identified by SWCA match the description or location of the feature recorded by Boone on October 26, 2007. The feature (Feature 1) located by Boone was a charcoal enriched stain with 42 pieces of FCR. The site is located in a residual dune field and likely has been covered by a sand sheet. Boone's Feature 1 is located closer to the artifact midden (F1) recorded by SWCA then the buried hearth, F2, found near the center of the site.

F1, the artifact midden, measures approximately 22.7 m (north-south) ×19.6 m (east-west) and occurs on the eastern-facing slope of a sand dune (Figure 4-33 through Figure 4-35). The soil of the surrounding midden is a matrix of reddish-yellow fine sand with a surrounding soil matrix of light brown fine sand. The midden staining was trowel tested to approximately 30 cmbs. The original F1 recorded by Boone was not reidentified; however, the current F1 has a similar description including a pocket of surficial FCR within a dense concentration of artifacts, but charcoal was not identified on the surface. The soil staining appears to be more related to an anthrosol matrix. F1 is potentially the same feature as described by Boone in 2007 with some moderate changes over time and a slight misplotting of the original feature to the west.

Artifacts associated with F1 include ground stone tools and debitage with a pocket of surficial FCR at the northern extremity. There are approximately 12 pieces of FCR that range in size from 5 to 15 cm in diameter. The artifact assemblage is estimated to be over 100 artifacts, with 30 artifacts sampled (estimated around 20 percent). Table 4-6 through Table 4-8 provide artifact details.

Table 4-6. Debitage Observed in Feature 1 at LA 122397

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Sandstone	Whole cortical flake	–	1	–	–	–	–	**1**	**8**
	Whole noncortical flake	–	3	2	–	–	–	**5**	
	Broken cortical flake	–	–	–	1	–	1	**2**	
Chert	Whole cortical flake	–	1	2	–	2	1	**6**	**9**
	Broken noncortical flake	–	–	1	–	–	–	**1**	
	Cortical shatter	–	–	–	–	–	2	**2**	
Quartzite	Whole cortical flake	–	–	–	–	–	2	**2**	**6**
	Broken cortical flake	–	–	–	–	2	–	**2**	
	Cortical shatter	–	–	–	–	1	1	**2**	
Limestone	Cortical shatter	–	–	–	–	–	2	**2**	**2**
Total		**–**	5	**5**	**1**	**5**	**9**		**25**

Table 4-7 Flaked Stone Manufacturing Artifacts Observed in Feature 1 at LA 122397

PL No.*	Material Type	Artifact Type	Size Class (cm)	Description
–	Chert	Core	<5	Fine-grained, multidirectional core with cortex present. Fourteen flake scars.
Total				**1**

*PL No. =Point-located number

Table 4-8. Ground Stone Tools Artifacts Observed in Feature 1 at LA 122397

Type	Condition	Material	Size Class (cm)	Description
Unknown fragment	Medial section	Sandstone	7.4 × 5 × 3.5	Polishing and striations present
Unknown fragment	End section	Sandstone	7.3 × 6 × 3.4	Pecking, crushing and striations present
One-handed mano	End section	Sandstone	7.6 × 7.1 × 3.6	Pecking, crushing, polishing, and striations present
Unknown mano fragment	End section	Quartzite	17.5 × 6.5 × 5.7	Pecking and striations present
Total				**4**

Figure 4-33. LA 122397, F1, midden detail, facing northwest (Roll 80772, Frame T18-9200).

Figure 4-34. LA 122397, F1, midden overview from south showing darker anthrosol soil in the bottom left corner by meter stick, facing north-northwest (Roll 80772, Frame T18-0715).

Figure 4-35. LA 122397, F1, midden overview from west feature showing pin flag in anthrosol staining, facing east (Roll 80772, Frame T18-1161)

F2 is a potential hearth that was exposed by a shovel test (ST 1) placed on a hilltop near the site center (Figure 4-36). A total of four pieces of articulate burned caliche with charcoal were visible in the north wall of shovel test at approximately 37 cmbs. The subsurface feature measured approximately 10 cm tall × 8 cm wide. Burned material was also detected at 47 cmbs in the shovel test. The burned material may have been deposited down roots. Artifacts recorded in the shovel tests associated with F2 include two indeterminate ground stone fragments at 20 cmbs and two chalcedony flakes at 27 cmbs (Table 4-9 and Table 4-10).

Table 4-9. Debitage Observed near Feature 2 in ST 1 at LA 122397

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Chalcedony	Broken noncortical flake	–	2	–	–	–	–	2	2
Total		–	2	–	–	–	–	–	2

Table 4-10. Ground Stone Tools Artifacts Observed near Feature 2 in ST 1 at LA 122397

Type	Condition	Material	Size Class (cm)	Description
Unknown fragment	Indeterminate	Quartzite	6 × 4.2 × 3.9	One side shows evidence of grinding
Unknown fragment	Indeterminate	Quartzite	5.9 × 3.7 × 2.7	One side shows evidence of grinding

Figure 4-36. LA 122397, F2, within north wall to the left of frame, facing east. The soil is slightly darker (Roll 80772, Frame T18-3665).

MATERIALS IDENTIFIED

SWCA performed a representative sample of the artifacts found on the surface of the site. A total of 115 artifacts were fully recorded with the estimated total assemblage at approximately 600 artifacts. The greatest density of artifacts was observed within the northern and northeastern quadrants of the site.

A total of 10 percent of artifacts were recorded within the general scatter (totaling 81 artifacts along three sample transects in the general scatter [transects 1 and 3 head north- south and transect 2 heads east-west]), 20 percent of artifacts were recorded within Feature 1 (30 artifacts randomly sampled within F1(artifact midden), and all artifacts were recorded near F2 within ST 1.

The sample of 115 artifacts occurring within the site was taken and consisted primarily of debitage (Table 4-11) with lesser quantities of ground stone tools (Table 4-12) and chipped stone manufacturing tools (Table 4-13). Two artifacts were point located. PL 1 is a small, sandstone metate slab (Table 4-12; Figure 4-37), and PL 2 is a chalcedony corner-notched projectile point fragment (Table 4-13; Figure 4-38), with nominal characteristics similar to a San Pedro or Hueco type. The project point is likely a Late Archaic point type.

Table 4-11. General Scatter Debitage Sample Observed at LA 122397

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Sandstone	Whole cortical flake	–	–	5	–	2	2	**9**	**14**
	Whole noncortical flake	–	–	–	1	1	–	**2**	
	Broken cortical flake	–	1	1	–	–	1	**3**	
Chert	Whole cortical flake	2	2	5	3	2	–	**14**	**28**
	Whole noncortical flake	–	–	4	1	–	–	**5**	
	Broken cortical flake	–	1	1	–	1	–	**3**	
	Cortical shatter	–	–	–	2	2	2	**6**	
Quartzite	Whole cortical flake	–	2	3	1	–	6	**12**	**27**
	Whole noncortical flake	–	–	6	2	–	–	**8**	
	Broken cortical flake	–	1	1	1	–	4	**7**	
Limestone	Whole cortical flake	–	–	–	–	–	1	**1**	**3**
	Whole noncortical flake	–	–	1	1	–	–	**2**	
Total		**2**	**7**	**27**	**12**	**8**	**16**		**72**

Table 4-12. General Scatter Ground Stone Tools Sample Observed at LA 122397

Point-located Number	Type	Condition	Material	Size Class (cm)	Description
PL 1	Metate slab	Complete	Sandstone	15.5 × 12.3 × 3	Crushing, polishing, and striations present Near Feature 1 Ground on both sides
	Unknown fragment	End section	Sandstone	9.8 × 8 × 5	Crushing, polishing, and striations present
	One-handed mano	End section	Quartzite	9 × 6 × 3	Pecking, polishing, and striations present
	One-handed mano	Medial section	Limestone	13.5 × 5.5 × 3.7	Pecking, polishing, and striations present
	Unknown fragment	Medial section	Sandstone	8 × 6.7 × 3.2	Polishing and striations present
	Unknown fragment	End section	Limestone	7.4 × 5.6 × 2.8	Pecking, crushing, and striations present
	One-handed mano	Lateral section	Sandstone	6.8 × 4.9 × 2.6	Polishing and striations present
	Unknown fragment	End section	Sandstone	4.7 × 3.8 × 2.2	Striations present
	Unknown fragment	End section	Sandstone	4.2 × 3.1 × 2	Striations present
Total					**9**

Table 4-13. All General Scatter Flaked Stone Tools Observed at LA 122397

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
2	Chalcedony	Projectile point	2 × 1.9 × 0.2	Gray chalcedony material. Unknown projectile point base with random flaking pattern, corner-notched, and no cortex. Proximal fragment.
Total				**2**

Figure 4-37. LA 122397, PL 1, brown sandstone metate slab, side A and side B (Roll 80772, Frame T18-2257 and -8954).

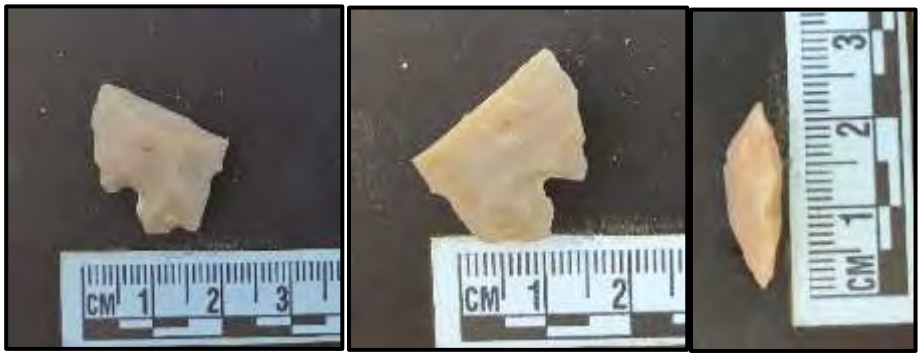

Figure 4-38. LA 122397, PL 2, gray chalcedony corner-notched possible San Pedro/Hueco Type Late Archaic projectile point fragment, side A, side B, and cross section (Roll 80772, Frame T18-7588, -5712, and -1388).

SHOVEL TESTS

Four shovel tests (ST 1 through ST 4) and a single trowel test (TT 1) were excavated within the site boundary to test for potential intact subsurface deposits (Table 4-14). Shovel tests measured 50 × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were encountered. ST 1 and TT 1 were positive for subsurface cultural deposits. Photographs of shovel tests are found in Figure 4-39 through Figure 4-43.

Table 4-14. Shovel Tests Excavated at LA 122397

Shovel Test Number	Pos/Neg	Depth (cmbs)	Shovel Test Description
ST 1	Positive	37	At the center of the site on a hilltop 0–50 cmbs: 7.5YR 6/4 light brown, loamy sand throughout the shovel test Terminated at compaction Identified two indeterminate ground stone between 0 to 20 cmbs, two chalcedony flakes at 27 cmbs, burnt caliche and charcoal found at 37 cmbs, and ash detected at 47 cmbs. F1, hearth was exposed within the shovel test. (See Figure 4-39)
ST 2	Negative	63	In APE 0–12 cmbs: 7.5YR 6/6 reddish brown, unconsolidated eolian sand 12–63 cmbs: 7.5YR 6/6 reddish brown, consolidated loamy sand with 15 percent calcium carbonate nodules in last 10 cm Terminated because of compaction (see Figure 4-40)
ST 3	Negative	34	0–10 cmbs: 7.5YR 6/6 reddish brown eolian sand 10–34 cmbs: 7.5YR 6/6 reddish brown consolidated sand with 20 percent calcium carbonate filaments Terminated because of compaction (see Figure 4-41)
ST 4	Negative	85	0–15 cmbs: 7.5YR 6/6 reddish brown, eolian sand 15–85 cmbs: 7.5YR 6/6 partially consolidated eolian sand Terminated because of compaction (see Figure 4-42)
TT 1	Positive	6	Executed within Feature 1 (F1) artifact midden 7.5YR 6/4 light brown anthrosol throughout Charcoal flakes were observed at 6 cmbs (see Figure 4-43)

Notes:
cmbs = centimeters below surface
ST = shovel test
TT = trowel test

Figure 4-39. LA 122397, ST 1, post-excavation overview, facing north (Roll 80772, Frame T18-8325).

Figure 4-40. LA 122397, ST 2, post-excavation overview, facing east (Roll 80772, Frame T18-4056).

Figure 4-41. LA 122397, ST 3, post-excavation overview, facing north (Roll 80772, Frame T18-0441).

Figure 4-42. LA 122397, ST 4, post-excavation overview, facing northeast (Roll 80772, Frame T18-0921).

Figure 4-43. LA 122397, TT 1, post-excavation overview, facing east (Roll 80772, Frame T18-8261).

SITE CHRONOLOGY

LA 122397 has been previously determined to have a Mogollon cultural affiliation, dating from the Early Pithouse to Late Pueblo (200 A.D.–1400 A.D.) cultural/temporal affiliation based on the presence of an undifferentiated brown ware sherd. Although previously recorded brownware sherds were not reidentified during the current investigation, a San Pedro (probably Hueco) complex projectile point (PL 2) was recorded. The projectile point is a possible San Pedro or Hueco type and indicates a Late Archaic to early transitional temporal period (1500 B.C.–A.D. 200); thereby extending the potential occupational period of this site. The site dates from Late Archaic (1500 B.C.) through the Late Pueblo Period (A.D. 1400).

SITE SUMMARY AND INTERPRETATION

LA 122397 is a densely occupied site occurring within a bed of legacy dunes centered around a sand hill. Based on the diagnostic artifact found during previous investigation in 2007 by Boone and the current investigation, the site was either occupied over one long-term period or multiple short-term occupations over a longer period. The topography and assemblage of the site suggests a high probability of a dense occupation using a 360-degree viewshed of the surrounding plains. A very high probability of buried structural features and additional datable material exists. The presence of an intact sand sheet in the area indicates a high probability of additional subsurface material throughout the site, which is backed up by a recorded positive shovel test and trowel test.

ELIGIBILITY RECOMMENDATIONS

LA 122397 is not associated with a significant event or person and is therefore not eligible under Criterion A or Criterion B. The site does not embody the distinctive characteristics of a type, period,

or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction and is therefore not eligible under Criterion C. SWCA observed and recorded charcoal within Feature 2 (a burned caliche and charcoal stained hearth that was uncovered during a shovel test). The artifact assemblage is dense and consists of a wide range of materials suggestive of a longer-term occupation. The positive shovel test and positive trowel test indicate that further intact subsurface deposits are likely present in this location and LA 122397 is likely to yield further information that will refine our understanding of past lifeways in this region. LA 122397 has been previously determined eligible under Criterion D by the BLM and SHPO (HPD Log No. 83067, dated 11/08/2007). SWCA agrees with this determination and recommends the site retain its status of eligible for the NRHP under Criterion D.

MANAGEMENT RECOMMENDATIONS

The site is currently determined eligible for listing to the NRHP. LA 122397 is 300.10 m (987.87 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. The path of investigation is proposed to be conducted along an existing pipeline corridor, approximately 17.82 m (58.45 ft) to the south of LA 122397. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of LA 122397 and that a cultural monitor be present during soil sampling within 30 m (100 ft) of the site. In addition, a fence should be constructed along the north side of the path of investigation to prevent additional foot or vehicle traffic entering the site.

NEWLY DISCOVERED SITES

LA 203097

Additional Site Numbers: 80772-jbb-01 (SWCA Environmental Consultants [SWCA])

UTM/PLSS Data: See Appendix A

USGS: Phantom Banks (32103-A7)

County: Eddy

Elevation: 921.32 m (3,022.70 feet) amsl

Landowner: BLM CFO

Cultural Affiliation and Age: Unknown Aboriginal, unspecified Prehistoric to unspecified Historic (9500 B.C.–A.D. 1550)

Site Type: Artifact scatter with features

Size: 1146.72 m^2 (12,343.18 square feet, or 0.28 acre)

NRHP Eligibility: Eligible, Criterion D

Management Recommendations: Avoidance and cultural monitoring within 30 m (100 ft) of the site during soil testing. Fencing on the north side of the site boundary is recommended.

CURRENT INVESTIGATION

LA 203097 is a small, low-density prehistoric artifact scatter with a single FCR concentration (Figure 4-44; Appendix A:Figure A.5; see Appendix A:Figure A.1). The site is in a residual dune field with a fairly intact sand sheet on the surface and measures 23 m × 50m (75.46 × 164.04 feet). In total, 28 artifacts were observed and recorded, and one FCR concentration feature was identified. To the north and west, the site boundary abuts a utility access road with subsurface and surface level pipelines. The site occurs approximately 34 m (112 feet) southeast of LA 122397 and is approximately 21 m (68 feet)

south of LA 204098. These other sites are likely part of a contemporaneous occupation but have been split because of oil and gas activities surrounding the sites. The vegetative community is consistent with the Desert Scrubland biotic environment and consists of a honey mesquite overstory and an understory of various grasses, silver leaf nightshade, and prickly pear. Overall ground surface visibility is estimated to be 76 to 99 percent.

The site is in good condition, estimated at 51 to 75 percent intact with water and wind erosion impacting overall site integrity. The site is visibly impacted by eolian and alluvial erosion. Extant materials occur at ground surface and appear to be eroding from the surrounding dune field. Two shovel tests were distributed throughout the site and one trowel test was placed in Feature 1 to test the possibility of intact subsurface cultural deposits. ST 2 and TT 1 were positive for cultural materials. The site retains a fairly intact sand sheet and occurs within a somewhat intact dune field. A high probability of additional subsurface materials exists.

Figure 4-44. LA 203097 site overview, facing southeast (Roll 80772, Frame T18-8015).

FEATURES

A single FCR concentration (F1) was observed and recorded at LA 203097 (Figure 4-45). The feature measured approximately 2 m (east-west) × 1.5 m (north-south). There was no visible carbon staining on the surface nor any associated artifacts. There was a total of 30 pieces of burned rock, ranging in size from 10 to 15 cm in diameter. Subsurface FCR was detected at about 5 cmbs by a trowel test. Feature 1 retains some subsurface integrity and likely has sequestered datable carbon deposits.

Figure 4-45. LA 203097, F 1, FCR Concentration, facing east (Roll 80772, Frame T18-8261).

MATERIALS IDENTIFIED

SWCA analyzed and recorded 100 percent of the artifacts observed in the surface assemblage. Most of the debitage occurred within Locus 1, which appears to be eroding from an extant sand sheet in the northwestern quadrant of the site. Locus 1 accounts for 18 of the 28 total artifacts observed at the site. Of the artifacts observed, a total of 18 items were ground stone fragments or tools, 10 were flaked debitage, and one was a single multidirectional core.

The debitage includes nine pieces of debitage, composed primarily of quartzite with additional occurrences of chert and limestone. The flaked debitage evenly ranges in size from less than 1 cm to greater than 5 cm in length (Table 4-15). The core is from fine-grained limestone source material and measures between 5 to 10 cm (Table 4-16). Most of the ground stone are unknown ground stone fragments or unknown mano or metate fragments, composed of limestone or sandstone. There is a single complete, one-handed mano (Table 4-17). No diagnostic artifacts were identified during the current investigation.

Table 4-15. Debitage Observed at LA 203097

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Quartzite	Whole cortical flake	–	–	–	1	–	1	**2**	**6**
	Broken cortical flake	–	1	–	–	1	2	**4**	
Chert	Broken noncortical flake	1	–	–	–	–	–	**1**	**2**
	Cortical Shatter	–	–	–	–	–	1	**1**	
Limestone	Whole cortical flake	–	1	–	–	–	–	**1**	**1**
		1	**2**	**–**	**1**	**1**	**4**		**9**

Table 4-16. Flaked Stone Manufacturing Artifacts Observed at LA 203097

Material Type	Artifact Type	Size Class (cm)	Description
Limestone	Core	5–10 cm	Fine-grained multidirectional core, cortex is present with six flaked scars
Total			**1**

Table 4-17. Ground Stone Tools Artifacts Observed at LA 203097

Type	Condition	Material	Size Class (cm)	Description
Unknown metate fragment	Lateral section	Limestone	21 × 10 × 2	Pecking, crushing, polishing, and striations present
One-handed mano fragment	Complete	Sandstone	10.6 × 8 × 3	Crushing, polishing, and striations present.
Unknown mano fragment	Lateral section	Sandstone	5 × 4 × 3.2	Pecking, crushing, polishing, and striations present
Unknown fragment	Lateral section	Limestone	8 × 6 × 4	Crushing, polishing, and striations present
Unknown mano fragment	End section	Sandstone	11 × 9 × 2	Pecking, crushing, polishing, and striations present
Unknown mano fragment	End section	Sandstone	13 × 6 × 3	Crushing present
Unknown fragment	Lateral section	Limestone	11 × 8 × 3	Pecking and crushing present
Unknown fragment	Lateral section	Limestone	8 × 5 × 2.3	Crushing present
Unknown fragment	Medial section	Limestone	7 × 4.5 × 2	Crushing present
Unknown fragment	Lateral section	Limestone	2 × 4 × 2	Crushing present
Total				**10**

SHOVEL TESTS

Two shovel tests (ST 1–ST 4) were distributed throughout the site to test, and one trowel test (TT 1) was placed within F1 to test the possibility of intact subsurface cultural deposits (Table 4-18). ST 1 and TT 1 were positive for cultural materials. The site retains a sand sheet that is fairly intact and occurs within a residual dune field. A high probability of additional subsurface materials exists. Shovel tests were 50 cm × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were encountered. Photographs of shovel tests are found in Figure 4-46 through Figure 4-48.

Table 4-18. Shovel Tests Excavated at LA 203097

Shovel Test Number	Positive/ Negative	Depth (cmbs)	Shovel Test Description
ST 1	Negative	18	0–5 cmbs: 7.5YR 6/6 reddish brown, eolian sand 5–18 cmbs: 7.5YR 6/6 reddish brown, consolidated sand with 20 percent calcium carbonate filaments Within 1.5 m west of Feature 1 (F1) in dune apron Terminated because of compaction. (see Figure 4-46)
ST 2	Positive	34	0–12 cmbs: 7.5YR 6/6 reddish brown, eolian sand 12–34 cmbs: 7.5YR 6/6 reddish brown, compact sand with 15 percent calcium carbonate filaments Terminated at hard pan layer Positive at 12 cmbs with FCR On F1(see Figure 4-47)
TT 1	Positive	5	The trowel test revealed FCR at 5 cmbs. The feature retains some integrity. (see Figure 4-48)

Notes: cmbs = centimeters below surface
ST = shovel test
TT = trowel test

Figure 4-46. LA 203097, ST 1, post-excavation overview, facing north (Roll 80772, Frame T18-0937).

Figure 4-47. LA 203097, ST 2, post-excavation overview, facing north (Roll 80772, Frame T18-3271).

Figure 4-48. LA 203097, TT 1, post-excavation at FCR Concentration, facing east (Roll 80772, Frame T18-8261).

SITE CHRONOLOGY

Diagnostics artifacts were not observed at LA 203097; hence, the cultural/temporal affiliation of the site is unknown and can only be assigned to an Unknown Aboriginal cultural affiliation, between an unspecified Prehistoric to an unspecific Historic period (9500 B.C.–A.D. 1550).

SITE SUMMARY AND INTERPRETATION

LA 203097 is a small, low-density prehistoric site with a single FCR concentration in a residual dune field. The site is near LA 122397, which is approximately 17 m west. The site is likely an extension of the larger site; however, a dirt access road exists between the sites, creating a human-made management boundary. Based on the artifact assemblage, LA 203097 is a temporary campsite with lithic reduction and resource processing present. The site is in good condition with minor water and wind erosion impacting overall site integrity. Testing at the site was positive for subsurface cultural deposits. The site retains a fairly intact sand sheet and occurs within a somewhat intact dune field. A high probability of additional subsurface materials exists.

ELIGIBILITY RECOMMENDATIONS

LA 203097 is not associated with a significant event or person and is therefore not eligible under Criterion A or Criterion B. The site does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction and is therefore not eligible under Criterion C. SWCA observed a sparse artifact scatter with a single FCR concentration. Although no diagnostic artifacts were observed on site and the artifact assemblage was partially sparse, a high potential for additional subsurface datable material exists. Feature 1 retains subsurface integrity and likely contains datable carbon deposits. LA 203097 is likely to yield further information that will refine our understanding of past lifeways in this region and therefore, SWCA recommends LA 203097 be eligible for listing to the NRHP under Criterion D.

MANAGEMENT RECOMMENDATIONS

The site is currently determined eligible for listing to the NRHP. LA 203097 is 302.78 m (993.37 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203097 site is located 8.57 m (28.11 ft) south of the proposed path of investigation. The path of investigation is proposed to be conducted within an existing pipeline ROW. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the site and a cultural monitor during soil testing within 30 m (100 ft) of LA 203097. Fencing can be utilized to the north of the site to encourage avoidance.

LA 203098

Additional Site Numbers: 80772-jbb-02 (SWCA Environmental Consultants)
UTM/PLSS Data: See Appendix A
USGS: Phantom Banks (32103-A7
County: Eddy
Elevation: 926.22 m (3,038.78 feet) amsl
Landowner: BLM CFO
Cultural Affiliation and Age: Archaic, Late Archaic to Transitional (1500 B.C.–A.D. 200)

Site Type: Artifact scatter with features

Size: 2,835.99 m^2 (30,526.31 square feet, or 0.70 acre)

NRHP Eligibility: Eligible, Criterion D

Management Recommendations: Avoidance and a cultural monitoring be present during soil testing within 30 m (100 ft) of the site. Fencing is recommended between the site and access road to the south.

CURRENT INVESTIGATION

LA 203098 is a prehistoric Mogollon site consisting of a burned rock midden and ash stain with associated FCR (Figure 4-49 through Figure 4-54; Appendix A:Figure A.6; see Appendix A:Figure A.1). The site is on a rolling plain in an extant dune field with a largely intact sand sheet from which materials are eroding. The site measures 35.00 × 67.00 m (114.93 × 219.82 feet). In total, 146 artifacts and two features were recorded at LA 204098. The site is bounded to the west and south by access roads. The road to the south intersects the site, and a few artifacts were noted in the road. A surface pipeline runs along the road to the west of the site. LA 203098 is approximately 15 m (52 feet) east of LA 122397 and approximately 21 m (68 feet) north of LA 204097. These other sites are likely part of a contemporaneous occupation but have been split because of oil and gas activities surrounding the sites. Surface visibility is good, approximately 51 to 75 percent, with some areas obscured by mesquite, bear grass, snake weed, and silverleaf nightshade sagebrush.

LA 203098 is in good condition, around 51 to 75 percent intact, with impacts from water and wind erosion. The site is in a residual dune field impacted by wind and water erosion as well as a utility access road, which bisects the site's southern extremity. Two shovel test units (ST 1 and ST 2) and two trowel tests (TT 1 and TT 2) were excavated during this investigation to determine whether the site has intact subsurface cultural deposits. The trowel tests were positive for cultural materials, such as an ash stain and FCR.

Figure 4-49. LA 203098, site overview from western boundary with oil pad visible in background, facing east (Roll 80772, Frame T18-2378).

Figure 4-50. LA 203098, site overview from western boundary, facing west (Roll 80772, Frame T18-4258).

Figure 4-51. LA 203098, site overview of road impacting site to the south, facing northeast (Roll 80772, Frame T18-9105).

Figure 4-52. LA 203098, site overview from northern boundary, facing south (Roll 80772, Frame T18-8507).

Figure 4-53. LA 203098, site overview showing caliche road abutting site to west, facing northwest (Roll 80772, Frame T18-0024).

Figure 4-54. LA 203098, site overview from southern boundary showing dense ground cover, facing north (Roll 80772, Frame T18-0750).

FEATURES

One ash stain (F1) and one burned rock midden (F2) were observed and recorded at the site. F1 measured 0.3 m (north-south) × 0.24 m (east-west) in diameter. The ash stain was observed eroding from the base of a dune. There were five pieces of FCR associated with the 10-cm-diameter ash stain. A trowel test (TT 1) was conducted and found buried ash up to 3 cmbs (Figure 4-55 and Figure 4-56).

Figure 4-55. LA 203098, F1, exposed ash stain with FCR, facing northeast (Roll 80772, Frame T18-3392).

Figure 4-56. LA 203098, F1, ash stain with a few FCR, exposed near base of sand dune. Overview showing dune field, facing northeast (Roll 80772, Frame T18-3429).

F2, a burned rock midden (Figure 4-57 and Figure 4-58), measures approximately 7.3 m (north-south) × 4.2 m (east-west). The rock midden is heavily deflated; however, there appears to be subsurface integrity defined by artifacts, such as a flaked debitage, core, and ground stone fragments (Table 4-19 through Table 4-21). A trowel scrape (TT 2) was conducted within the feature. Approximately 30 pieces of residual FCR, with an average diameter of 10 to 15 cm each, were identified within the feature. A total of four ground stone tool fragments, 17 flaked debitage, and one multidirectional core were associated with the feature.

Figure 4-57. LA 203098, F2, burned rock midden, deflated, facing east (Roll 80772, Frame T18-9397).

Figure 4-58. LA 203098, F2, burned rock midden, facing north (Frame -1483).

Table 4-19. All Debitage Observed in Feature 2 at LA 203098

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Quartzite	Whole cortical flake	–	–	–	2	1	-	**3**	**12**
	Broken cortical flake	–	1	2	4	–	1	**8**	
	Broken noncortical flake	–	–	–	1	–	-	**1**	
Chert	Broken noncortical flake	1	–	–	–	–	-	**1**	**1**
Limestone	Broken cortical flake	–	–	–	2	–	1	**3**	**4**
	Cortical shatter	–	–	–	–	–	1	**1**	
Total		**1**	**1**	**2**	**9**	**1**	**3**		**17**

Table 4-20. All Flaked Stone Manufacturing Artifacts Observed in Feature 2 at LA 203098

Material Type	Artifact Type	Size Class (cm)	Description
Chert	Core	5–10	Fine-grained, multidirectional core with eight flake scars and cortex present
Total			**1**

Table 4-21. All of Ground Stone Tools Artifacts Observed in Feature 2 at LA 203098

Type	Condition	Material	Size Class (cm)	Description
Unknown mano	End Section	Limestone	8.5 × 5 × 4.1	Crushing and striations present
Unknown mano	Medial section	Limestone	10 × 4.6 × 4	Striations present
Unknown fragment	Medial section	Quartzite	7 × 5.2 × 1.8	Pecking, polishing, and striations present
Unknown mano	End section	Sandstone	8 × 5 × 2	Pecking, crushing, polishing, and striations present
Total				**4**

MATERIALS IDENTIFIED

SWCA collected a representative sample of the artifacts associated with the general scatter. A total of 120 artifacts were recorded within the sample, with an estimated total assemblage of approximately 210 artifacts. A 75 percent random sample was conducted within the general scatter, totaling 99 artifacts. The greatest density of artifacts was observed within the burned rock midden (F2). All observable artifacts within F2 (n = 21) were recorded.

The sample of 99 artifacts occurring within the general scatter consisted primarily of debitage (Table 4-22) with lesser quantities of ground stone tools (Table 4-23) and chipped stone manufacturing tools (Table 4-24). The debitage includes 68 pieces of quartzite, chert, limestone, and sandstone mostly ranging in size from 2 to 5 cm, with a few outliers at 0 to 1 cm and greater than 5 cm (Table 4-22). Most of the ground stone recorded at the site were fragments. A total of eight manos and one metate were present; however, only one of the manos was complete (Table 4-23). The cores are from quartzite, chert, and limestone source materials and all measure between 5 and 10 cm (Table 4-24). One artifact was point located. PL 1 is a tan chert projectile point with nominal characteristics to a San Pedro projectile point type. The projectile point is a corner-notched biconvex with serrations, heavy and chaotic flake pattern

(Table 4-24; Figure 4-59). The project point has characteristics similar to a San Pedro or Neff type, which date within Late Archaic period. The base of the projectile is broken, making it difficult to determine the exact projectile point type.

Table 4-22. Sample of Debitage Observed in General Scatter at LA 203098

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Quartzite	Whole cortical flake	–	–	–	3	4	2	**9**	**26**
	Broken cortical flake	1	1	2	1	3	–	**8**	
	Cortical shatter	–	–	3	3	–	–	**6**	
	Noncortical shatter	–	1	2	–	–	–	**3**	
Chert	Whole cortical flake	–	–	–	–	–	2	**2**	**18**
	Whole noncortical flake	1	2	–	–	–	–	**3**	
	Broken cortical flake	–	–	2	–	–	–	**2**	
	Broken noncortical flake	–	1	–	–	–	–	**1**	
	Cortical shatter	–	2	1	1	–	1	**5**	
	Noncortical shatter	–	2	2	1	–	–	**5**	

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Limestone	Whole cortical flake	–	–	–	1	3	1	**5**	**17**
	Whole noncortical flake	–	–	1	–	–	–	**1**	
	Broken cortical flake	–	2	–	1	–	1	**4**	
	Cortical shatter	–	2	2	1	1	1	**7**	
Sandstone	Whole cortical flake	–	–	–	2	–	–	**2**	**7**
	Whole noncortical flake	–	–	1	–	–	–	**1**	
	Broken Cortical flake	–	3	–	–	–	1	**4**	
		2	**16**	**16**	**14**	**11**	**9**		**68**

Table 4-23. Sample of Ground Stone Tools Artifacts Observed in General Scatter at LA 203098

Type	Condition	Material	Size Class (cm)	Description
Unknown mano	End section	Sandstone	4.6 × 3.5 × 2.3	Pecking and polish present
Unknown fragment	Medial section	Sandstone	5.2 × 4.3 × 1	Pecking, crushing, polishing, and striations present
Unknown fragment	End section	Limestone	5.3 × 4.3 × 2.6	Pecking and crushing present
Unknown fragment	End section	Limestone	5 × 4 × 2	Pecking and crushing present
Unknown fragment	End section	Limestone	5.1 × 4 × 2	Pecking and crushing present
Unknown mano	Medial section	Sandstone	4.3 × 3.2 × 26	Pecking, crushing, polishing, and striations present
Unknown fragment	Medial section	Sandstone	4× 3 × 2.4	Polishing and striations present
One-handed mano	End section	Sandstone	7,6 × 6 × 5	Polishing, crushing, polishing, and striations present
Unknown fragment	End section	Sandstone	5 × 3.3 × 2.7	Striations present

Type	Condition	Material	Size Class (cm)	Description
Basin Metate	End section	Sandstone	10 × 7 × 3.4	–
Unknown fragment	Medial section	Limestone	7.5 × 6.8 × 3	Striations present
Unknown mano	End section	Sandstone	7.6 × 6 × 3.9	Pecking, polishing, and striations present
Unknown fragment	Medial section	Limestone	3.5 × 2.1 × 1.2	Crushing, polishing, and striations present
Unknown mano	End section	Sandstone	7 × 4 × 4.1	Polishing and striations present
One-handed mano	Complete	Limestone	11 × 7.5 × 5	Pecking, crushing, polishing, and striations present
Unknown fragment	End section	Sandstone	8 × 4.2 × 2.6	Crushing, polishing, and striations present
Unknown fragment	End section	Sandstone	5 × 3 × 2	Crushing and striations present
Unknown mano	Medial section	Quartzite	10 × 6 × 4.3	Crushing and striations present
Unknown fragment	End section	Sandstone	4 × 2 × 1.3	Crushing present
Unknown fragment	End section	Sandstone	6 × 4.2 × 2.7	Pecking, polishing, and striations present
Unknown fragment	Medial section	Limestone	4.8 × 3.6 × 2	No markings
Unknown fragment	End section	Sandstone	5.3 × 4 × 2.6	Pecking present
Unknown fragment	Lateral section	Sandstone	4.1 × 3 × 1.8	Pecking, cursing, polishing, and striations present
Unknown mano	End section	Sandstone	5 × 3.2 × 2.6	Crushing present
Unknown mano	End section	Sandstone	4.5 × 3 × 2.2	Pecking, crushing, polishing, and striations present
Total				**25**

Table 4-24. All Flaked Stone Manufacturing Artifacts Observed in General Scatter at LA 203098

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
1	Tan chert	Projectile point	2.6 × 1.2 × 0.4	Probable San Pedro or Neff projectile point type, corner-notched biconvex with serrations, heavy and chaotic flake pattern. No cortex present. The base of the projectile is broken, making it difficult to determine the exact projectile point type.
	Quartzite	Core	5–10	Coarse-grained, multidirectional core with 10 flake scars and cortex present
	Chert	Core	5–10	Fine-grained, multidirectional core with 12 scars and cortex present
	Chert	Core	5–10	Fine-grained, multidirectional core with 15 scars and cortex present
	Chert	Core	5–10	Medium-grained, multidirectional core with 10 scars and cortex present
	Limestone	Tested cobble	5–10	Medium-grained tested cobble with three scars and cortex present
Total				**6**

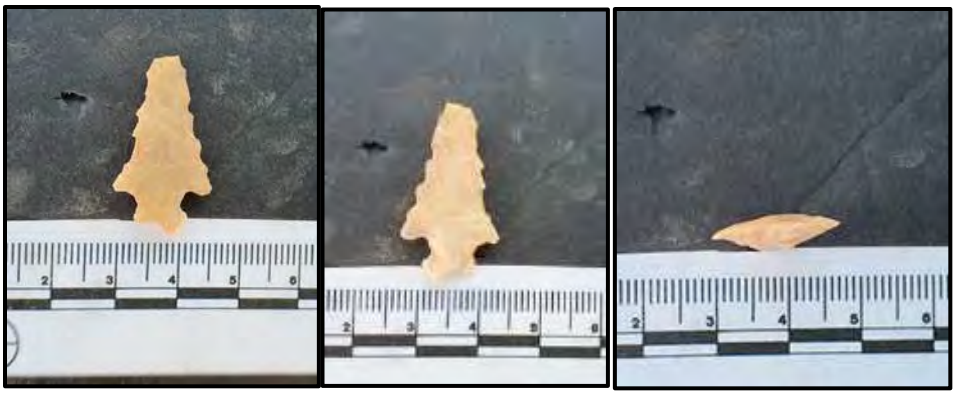

Figure 4-59. LA 203098, PL 1, tan chert probable San Pedro or Neff projectile point type (corner-notched biconvex with serrations, side A, side B, and cross section (Roll 80772, Frame T18-2599, 6614, and -6336).

SHOVEL TESTS

Two shovel tests (ST 1 and ST 2) were distributed throughout the site, and two trowel tests (TT 1 and TT 2) were placed within F1 and F2, respectively, to test for intact subsurface cultural deposits (Table 4-25). TT 1 and TT 2 were positive for cultural materials. Shovel tests were 50 × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were encountered. Figure 4-60 through Figure 4-64 are photographs of the shovel tests.

Table 4-25. Shovel Tests Excavated at LA 203098

Shovel Test Number	Positive/ Negative	Depth (cmbs)	Shovel Test Description
ST 1	Negative	47	Originally labeled ST 3 0–23 cmbs: 7.5YR 6/5 silty sand 23–47 cmbs: 7.5YR 6/4 compact sand with 15 percent filaments Terminated because of compaction
ST 2	Negative	73	0–23 cmbs: 7.5YR 6/4 unconsolidated loamy sand 23–73 cmbs: 7.5YR 6/6 consolidated sand Terminated because of compaction Originally ST 4
TT 1	Positive	3	0–3 cmbs: 7.5YR 6/6 eolian sand matrix, ash 7.5YR 6/4 Conducted in Feature 1
TT 2	Positive	3	0–3 cmbs: Trowel scrape revealed buried FCR and 7.5YR 3/6 loamy sand Conducted in Feature 2

Notes:

cmbs = centimeters below surface
ST = Shovel test
TT = Trowel test

Figure 4-60. LA 203098, ST 1, post-excavation overview, facing north (Roll 80772, Frame T18-4473)

Figure 4-61. LA 203098, ST 2, post-excavation overview, facing northeast (Roll 80772, Frame T18-1310).

Figure 4-62. LA 203098, TT 1 in F1 showing exposed ash on surface and a few pieces of FCR, post-excavation overview, facing northwest (Roll 80772, Frame T18-1502).

Figure 4-63. LA 203098, TT 1 in F1, post-excavation overview, facing north (Roll 80772, Frame T18-7559).

Figure 4-64. LA 203098, TT 2, post-excavation overview, facing west (Roll 80772, Frame T18-5424).

SITE CHRONOLOGY

The presence of a possible San Pedro or Neff projectile point (PL 1) indicates a Late Archaic to early transitional temporal period (1500 B.C.–A.D. 200). The base of the projectile is broken making it hard to determine the specific projectile point type.

SITE SUMMARY AND INTERPRETATION

LA 203098 is a small prehistoric site with a moderate- to large-density artifact scatter in a dune blowout. A single ash stain (F1) and one burned rock midden (F2) were observed and recorded at the site. The presence of ground stone tools and a heavy proportion of debitage, in addition to a deflated midden (F2) as well as an intact hearth (F1), suggests frequent use for both lithic retooling and resource processing. This site is likely an outlying occurrence of the dense occupation that occurs in LA 122397 approximately 15 m (52 feet) west and was recorded separately because of the man-made access road management boundaries. The site is also likely associated with LA 204097, which is approximately 21 m (68 feet) south. The site retains some integrity and is likely to provide important information on subsistence, seasonality, or technological information concerning the prehistoric occupation of southeastern New Mexico.

ELIGIBILITY RECOMMENDATIONS

LA 203098 is not associated with a significant event or person and is therefore not eligible under Criterion A or Criterion B. The site does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction and is therefore not eligible under Criterion C. SWCA observed an intact hearth with subsurface carbon staining eroding

from a dune. Given that the site is in a changing dune field and yielded two positive trowel tests within the site features this suggests that the site retains potential for additional intact subsurface cultural material beneath the numerous extant dunes (Criterion D). For these reasons, SWCA recommends the site eligible for listing in the NRHP under Criterion D.

MANAGEMENT RECOMMENDATIONS

The site is currently determined eligible for listing to the NRHP. LA 203098 is 250.95 m (823.34 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203098 is recommended eligible for listing in the NRHP under Criterion D. The proposed path of investigation is proposed to be located within an existing pipeline ROW near the southern end of LA 203098. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the LA 203098 and that a cultural monitor be present during the soil sampling within 30 m (100 ft) of the site. It is also recommended that fencing be installed around the northern boundary of the access road to eliminate the possibility of vehicles parking on the site during sampling activities.

LA 203099

Additional Site Numbers: 80772-jbb-03 (SWCA Environmental Consultants)

UTM/PLSS Data: See Appendix A

USGS: Phantom Banks (32103-A7) and Ross Ranch (32103-A8)

County: Eddy

Elevation: 921.4 m (3,743.64 feet) amsl

Landowner: BLM CFO

Cultural Affiliation and Age: Unknown Aboriginal, unspecified Prehistoric to unspecified Historic (9500 B.C.–A.D. 1550)

Site Type: Artifact scatter

Size: 3743.64 m^2 (40,296.17 square feet, or 0.92 acre)

NRHP Eligibility: Not eligible, Criterion D

Management Recommendations: No further management is recommended.

CURRENT INVESTIGATION

LA 203099 is a small prehistoric artifact scatter within a deeply eroded residual dune field (Figure 4-65 through Figure 4-68; Appendix A: Figure A.7; see Appendix A:Figure A.1) and measures 60.00 × 83.00 m (76.37 × 32.32 feet). The scatter across the site is generally low density with one high-density artifact concentration (AC 1) present within the northwestern portion of the site. Topographically, the residual dune field rests on a rolling plain typical of the area with a negligible slope. The site is 15 m (50 feet) north of a dirt access road. The site measures 95 m (312 feet) west of LA 122397 and is approximately 57 m (188 feet) north of LA 86207. These other sites are likely part of a contemporaneous occupation but have been split because of oil and gas activities surrounding the sites. Desert Scrubland vegetation, such as mesquite, salt bush, yucca, Spanish dagger, tar bush, spectacle pod, snakeweed, and various grasses obscure ground visibility to approximately 76 to 99 percent.

LA 203099 is in fair condition and estimated to be 26 to 50 percent intact. The site has been impacted by water and wind erosion. Most observed materials occur within blowouts and are exposed on hard pan ground surface or were observed actively eroding from the dunes. Artifacts appear to be largely displaced

from extant pockets of dunes/sand sheets. Pervasive sheet washing and wind erosion is evident. Much of the extant ground surface is residual, calcium carbonates, and gypsum carbonates exposures occur throughout the site. AC 1 occurs within a heavily eroded area and appears to consist of material eroding from an extant sand sheet to the north. Two shovel tests were placed within the site boundary to test for intact subsurface cultural deposits. All tests were negative for cultural materials.

Figure 4-65. LA 203099, site overview from western boundary near primary artifact concentration (AC 1), facing east (Roll 80772, Frames T18-7165).

Figure 4-66. LA 203099, site overview from southern boundary, facing north (Roll 80772, Frames T18-9708).

Figure 4-67. LA 203099, site overview from extreme northern boundary with pumpjack and utility lines visible, facing southwest (Roll 80772, Frames T18-2607).

Figure 4-68. LA 203099, site overview from eastern boundary, facing west (Roll 80772, Frames T18-0202).

FEATURES

No features were observed during this investigation.

MATERIALS IDENTIFIED

A total of 118 artifacts were recorded within the combined 25 percent representative sample collected within AC 1 and the 100 percent sample collected within the general scatter. The total observed assemblage is approximately 475 artifacts, with the majority within AC 1.

The sampled artifacts consisted primarily of debitage (Table 4-26 and Table 4-27) with lesser quantities of ground stone tools (Table 4-28 and Table 4-29) and chipped stone manufacturing tools (Table 4-29 and Table 4-31). The debitage included 103 sampled pieces of quartzite, chert, limestone, chalcedony, and rhyolite, ranging in all sizes between less than 1 to greater than 5 cm, with a majority ranging in size from 1 to 4 cm.

Lithic debitage consistent with retooling (very few cores or angular debris observed) accounted for most of the artifacts sampled. One of the lithic artifacts (PL 1) was an edge-modified flake (Figure 4-69; see Table 4-29) and was located within the general surface scatter. Most of the ground stone recorded at the site were fragments, including four indeterminate mano fragments and five unknown fragments. However, PL 2 was a combination mano and metate that was a possible palette (Figure 4-70; see Table 4-30) found in AC 1. Also, an unmodified marine shell fragment (PL 3) was identified in AC 1 (Figure 4-71; see Table 4-31).

Table 4-26. All Debitage Observed in General Scatter at LA 203099

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Chert	Whole cortical flake	–	–	3	–	2	–	**5**	**22**
	Whole noncortical flake	2	3	–	–	–	–	**5**	
	Broken cortical flake	–	4	2	–	–	–	**6**	
	Broken noncortical flake	–	–	2	–	–	–	**2**	
	Cortical shatter	–	–	–	2	–	1	**3**	
	Noncortical Shatter	–	–	–	–	–	1	**1**	
Quartzite	Whole Cortical flake	–	–	1	2	3	1	**7**	**24**
	Whole noncortical flake	1	–	1	–	–	–	**2**	
	Broken cortical flake	–	2	2	3	–	1	**8**	
	Broken noncortical flake	4	1	–	–	–	–	**5**	
	Cortical shatter	–	–	–	–	–	1	**1**	
	Noncortical Shatter	–	1	–	–	–	–	**1**	
Limestone	Whole noncortical flake	–	–	2	–	–	–	**2**	**5**
	Cortical shatter	–	–	–	–	–	1	**1**	
	Noncortical shatter	–	1	1	–	–	–	**2**	
Total		**7**	**12**	**14**	**7**	**5**	**6**		**51**

Table 4-27. Sampled Debitage Observed in Artifact Concentration 1 at LA 203099

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Chert	Whole cortical flake	–	2	2	1	–	1	**6**	**26**
	Whole noncortical flake	–	–	3	–	1	2	**6**	
	Broken cortical flake	2	2	–	4	–	-	**8**	
	Broken noncortical flake	1	2	–	–	–	-	**3**	
	Cortical shatter	–	–	1	–	–	-	**1**	
	Noncortical Shatter	–	–	–	2	–	-	**2**	

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
Chalcedony	Whole Cortical flake	1	–	1	–	–	-	**2**	**8**
	Whole noncortical flake	2	–	2	–	–	-	**4**	
	Broken cortical flake	–	–	2	–	–	-	**2**	
Rhyolite	Cortical shatter	–	–	1	–	–	-	**1**	**1**
Quartzite	Whole cortical flake	1	–	–	1	3	1	**6**	**19**
	Whole noncortical flake	–	–	–	1	2	1	**4**	
	Broken cortical flake	–	–	1	–	–	-	**1**	
	Broken noncortical flake	–	3	1	1	–	-	**5**	
	Cortical shatter	–	1	–	–	–	-	**1**	

Material Color/Type	Type	Maximum Length of Flake (cm)							Material Total
		0–1	1–2	2–3	3–4	4–5	5+	Type Total	
	Noncortical shatter	–	2	–	–	–	-	**2**	
Total		**7**	**12**	**14**	**10**	**6**	**5**		**52**

Table 4-28. All Ground Stone Tools Artifacts Observed in General Scatter at LA 203098

Type	Condition	Material	Size Class(cm)	Description
Unknown fragment	End section	Sandstone	7.5 × 4.6 × 2.3	Striations present
Unknown fragment	End section	Sandstone	7 × 4.2 × 2.9	Pecking and striations present
Unknown fragment	End section	Sandstone	6.3 × 3.6 × 2.2	Striations present
Unknown mano	End section	Limestone	12 × 7.1 × 3.2	Crushing, polishing, and striations present
Total				**4**

Table 4-29. All Flaked Stone Manufacturing Artifacts Observed in the General Scatter at LA 203099

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
1	Sandstone	Edge-modified flake	11.5 × 0.6 × 3.4	Appears to have been ground before it was retouched; likely used as a ground stone
	Chert	Biface	<5 cm	Fine-grained biface, 2–3 cm, cortex absent
	Orthoquartzite	Core	<5 cm	Multidirectional core with 12 flake scars, measuring 3–4 cm, with cortex present
Total				**3**

Table 4-30. Sampled Ground Stone Observed in Artifact Concentration 1 at LA 203098

PL No.	Type	Condition	Material	Size Class (cm)	Description
2	Mano and Metate	Complete	Sandstone	11.5 × 8.3 × 5	Pecking, crushing, polishing, and striations present Possible mano/metate combination or palette
	Unknown mano	End section	Sandstone	7 × 8 × 3.5	Crushing and polishing present
	Unknown mano	End section	Limestone	7 × 2.5 × 2.3	–
	Unknown mano	Complete	Sandstone	11.8 × 6.4 ×x 3	Crushing and striations present
	Unknown fragment	End section	Sandstone	4 × 3.6 × 2.3	Striations present
	Unknown fragment	End section	Limestone	4 × 2.6 × 2.1	–
Total					**6**

Table 4-31. Sampled Flaked Stone Manufacturing Artifacts Observed in Artifact Concentration 1 at LA 203099

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
3	Shell	Edge-modified flake	4 cm	Non-lithic material was found at the site Shows signs of modification on one edge
	Chert	Core	5–10	Course-grained multidirectional core measuring 8 × 7 × 6 cm with 50 percent cortex present Gray chert

PL No.	Material Type	Artifact Type	Size Class (cm)	Description
Total				2

Figure 4-69. LA 203099, PL 1, brown silicified sandstone edge-modified flake, side A, side B, and cross section (Roll 80772, Frames T18-4728, -6580, and -5010).

Figure 4-70. LA 203099, PL 2, brown sandstone mano-metate combination, side A, side B, and cross section (Roll 80772, Frames T18-4935, -4124, and 9466).

Figure 4-71. LA 203099, PL 3, unmodified shell fragment, side A and side B (Roll 80772, Frames T18-6418 and -1518).

SHOVEL TESTS

Two shovel tests (ST 1 and ST 2) were distributed throughout the site to test for intact subsurface cultural deposits (Table 4-32). Shovel tests were 50 cm × 50 cm and were excavated down to 1 m or until obstructions that impeded excavation were encountered. Because of compaction, both shovel tests were excavated to a maximum depth of 34 cmbs. Photographs of shovel tests are found in Figure 4-72 and Figure 4-73.

Table 4-32. Shovel Tests Excavated at LA 203099

Shovel Test Number	Positive/ Negative	Depth (cmbs)	Shovel Test Description
ST 1	Negative	34	0–12 cmbs: 7.5YR 6/6 eolian loamy sand 12–34 cmbs: 7.5YR 6/6 ~20% calcium carbonates partially and consolidated sandy loam Terminated because of compaction and presence of calcium carbonates.
ST 2	Negative	27	0–11 cmbs: 7.5YR 6/6 eolian loamy sand 11–27 cmbs: 7.5YR 6/6 partially consolidated sandy loam with 20 percent calcium carbonates Terminated because compaction and presence of calcium carbonates

Figure 4-72. LA 203099, ST 1, post-excavation overview, facing west (Roll 80772, Frame T18-8694).

Figure 4-73. LA 203099, ST 2, post-excavation overview, facing west (Roll 80772, Frame T18-1885).

SITE CHRONOLOGY

Diagnostics artifacts were not observed at LA 203099; therefore, the cultural/temporal affiliation of the site is unknown and can only be assigned to an Unknown Aboriginal cultural affiliation between an unspecified Prehistoric to an unspecific Historic timeframe (9500 B.C.–A.D. 1550).

SITE SUMMARY AND INTERPRETATION

LA 203099 is a small prehistoric site with a high-density artifact scatter within a deeply eroded residual dune field. The scatter across the site is generally low density; however, there is one high-density artifact concentration identified within the northwest portion of the site. It is possible that the site is connected occupationally with LA 86207 and/or 122397 but have been split because of oil and gas activities surrounding the sites. The quantity and types of materials present suggest extensive use of the area. No identifiable features or diagnostic artifacts were found on the surface. Although testing was negative for subsurface materials, there is a high probability of additional buried materials within the residual sand sheets to be present at the northern and eastern extremities of the site.

ELIGIBILITY RECOMMENDATIONS

LA 203099 is not associated with a significant event or person and is therefore not eligible under Criterion A or Criterion B, respectively. The site does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction and is therefore not eligible under Criterion C. No diagnostic artifacts or features were observed, and shovel tests were negative for subsurface cultural deposits. It is unlikely that additional research at this location

will yield greater information about the prehistory of this region. SWCA recommends the site as not eligible for listing on the under any criteria.

MANAGEMENT RECOMMENDATIONS

The site is currently determined eligible for listing to the NRHP. LA 203097 is 656.77 m (2,154.77 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203099 is recommended not eligible for listing in the NRHP under any Criteria. The site is mostly outside the APE and is approximately 15 m (15 feet) north of the path of investigation for core sampling. The path of investigation will have no effect on the site and furthermore, the site is recommended not eligible. SWCA recommends no additional management is necessary.

ISOLATED MANIFESTATION

Sixteen IMs were recorded during the survey (Table 4-33; Figure 4-74 and Figure 4-75; see Appendix A:Figure A.1). UTM coordinates for the IM are provided in Table A.4 in Appendix A.

Table 4-33. Isolated Manifestations Observed during the Investigation

Isolate Number	Area (m²)	Isolate Description
IM 1	-	One quartzite multidirectional core, greater than 5 cm.
IM 2	-	One unmodified shell fragment, 2.5 cm
IM 3	-	One sandstone mano fragment, thermally altered, measuring 10 × 4 × 3 cm, and pecked and ground on one side.
IM 4	4	One broken cortical quartzite flake, 4–5 cm, one chert angular debris, 4–5 cm.
IM 5	-	One limestone multidirectional core, greater than 5 cm.
IM 6	5	One broken cortical chert flake, 2–3 cm, One whole cortical chert flake, 3–4 cm.
IM 7	-	One broken cortical chert flake, 1–2 cm.
IM 8	-	One whole cortical limestone flake, 5cm.
IM 9	-	One broken noncortical chert flake with 1 cm diameter.
IM 10	-	One broken cortical chert flake, 4–5 cm.
IM 11	5	Five lithic debitage: One broken cortical quartzite flake, greater than 5 cm; one quartzite tested cobble with three flake scars and greater than 5 cm; one broken cortical quartzite flake, 3–4 cm; one broken cortical chert flake, 2–3 cm; one broken noncortical quartzite flake, 2–3 cm
IM 12	2	One whole noncortical chert flake, 3–4 cm; one multidirectional chert core, 10 cm diameter.
IM 13	2	One quartzite multidirectional core, 8 cm diameter; one broken cortical limestone, 4–5 cm.
IM 14	-	One chert biface, 4–5 cm on disturbed well pad area.
IM 15	2	Two one-handed manos: one made from limestone material, measuring 12 × 9 × 2 cm with signs of crushing and striations and one made from a sandstone material, measuring 16 × 7.5 × 6 with striations present.
IM 16	-	One ground stone fragment with signs of striations and pecking, measuring 9 × 6 × 2 cm.

Figure 4-74. 80772, IM 2, shell fragment, detail (Roll 80772, Frame T66-3482).

Figure 4-75. 80772, IM 15, side A, side B, and cross section (Roll 80772, Frames T66-3976, 1879, and -3717)

CHAPTER 5. SUMMARY OF ELIGIBILITY AND MANAGEMENT RECOMMENDATIONS

SWCA conducted an intensive pedestrian survey for the RDU 11 Inadvertent Release Remediation Project, covering a total of 18.34 ha (45.40 acres) on lands managed by the BLM CFO in Eddy County, New Mexico. A 100-foot cultural survey buffer was placed around the project's APE. Three new archaeological sites (LA 203097, LA 203098, and LA 203099) were observed and recorded during the current investigation. Three previously recorded cultural resources (LA 37857, LA 86207, LA 122397) were expected within the project APE. SWCA revisited and updated the recordings of the three previously recorded cultural sites during the current undertaking. The site boundaries were updated or created based on the distribution of artifacts, features, and existing disturbances from oil and gas activity. The previously recorded and newly discovered sites are all possibly connected occupationally based on the proximity to each other and the temporal periods but have been separated by human activities and/or eolian erosion. In addition, sixteen IMs were observed and recorded during the investigations (see Table 4-33).

LA 37857 is a small prehistoric site with a low-density artifact scatter located in a residual dune field. LA 37857 has not previously been reviewed for eligibility to the NRHP by the BLM or SHPO. SWCA observed a sparse artifact scatter with a single feature that was not intact. In addition, three shovel tests and one trowel test were negative for subsurface cultural materials. Given the impacts from water and wind erosion and the oil and gas industry and the lack of evidence for subsurface cultural deposits, the site is not likely to provide important information on subsistence, seasonality, or technological information concerning the prehistoric occupation of southeastern New Mexico (Criterion D). Thus, SWCA recommends LA 37857 not eligible for listing to the NRHP. Remediation of the inadvertent release will not directly impact the site, and no further management is recommended.

LA 86207 is a large prehistoric artifact scatter within a dune and interdunal area. Following the previous recordings, LA 86207 was previously determined eligible under Criterion D for information potential by the BLM (HPD Log No. 72596, dated 10/26/2004) and SHPO (HPD Log No. 23249, dated 08/30/1991; HPD Log No. 53511, dated 090/8/1997; and HPD Log No. 53271, dated 08/01/1997). SWCA agrees with the previous eligibility determination on file. LA 86207 is 593.61 m (1,947.54 feet) west of the RDU 11 inadvertent releases and will not be directly impacted by the spill. The proposed path of investigation is 38.73 m (127.08 feet) north of the site and collecting core samples will have no effect on the site. SWCA recommends continued avoidance, and no further management is required.

LA 122397 is a large, dense prehistoric site located on a large sand hill covered in eolian dunes. LA 122397 has been previously determined eligible under Criterion D by the BLM and SHPO (HPD Log No. 83067, dated 11/08/2007). SWCA agrees with this determination and recommends the site retain its status of eligible for the NRHP under Criterion D. The path of investigation is proposed to be conducted along an existing pipeline corridor, approximately 17.82 m (58.45 ft) to the south of LA 122397. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of LA 122397 and that a cultural monitor be present during soil sampling within 30 m (100 ft) of the site. In addition, a fence should be constructed along the north side of the path of investigation to prevent additional foot or vehicle traffic entering the site.

LA 203097 is a low-density prehistoric site with a single FCR concentration, in a residual dune field. Feature 1 retains subsurface integrity and likely contains datable carbon deposits. Therefore, SWCA recommends LA 203097 be eligible for listing to the NRHP under Criterion D. LA 203097 is 302.78 m (993.37 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent

release. LA 203097 site is located 8.57 m (28.11 ft) south of the proposed path of investigation. The path of investigation is proposed to be conducted within an existing pipeline ROW. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the site and a cultural monitor during soil testing within 30 m (100 ft) of LA 203097. Fencing can be utilized to the north of the site to encourage avoidance.

LA 203098 is a small prehistoric site with two thermal features in a residual dune field. The site yielded two positive trowel tests within the site features. SWCA recommends the site eligible for listing in the NRHP under Criterion D. LA 203098 is 250.95 m (823.34 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203098 is recommended eligible for listing in the NRHP under Criterion D. The proposed path of investigation is proposed to be located within an existing pipeline ROW near the southern end of LA 203098. Based on consultation with the BLM, to allow for no adverse effects, the soil testing can be conducted within 100 feet of the site if the soil testing stays outside the site boundary. SWCA recommends avoidance of the LA 203098 and that a cultural monitor be present during the soil sampling within 30 m (100 ft) of the site. It is also recommended that fencing be installed around the northern boundary of the access road to eliminate the possibility of vehicles parking on the site during sampling activities.

LA 203099 is a small prehistoric site with a high-density artifact scatter in a residual dune field. No diagnostic artifacts or features were observed, and shovel tests were negative for subsurface cultural deposits. SWCA recommends the site as not eligible for listing on the under any criteria. LA 203097 is 656.77 m (2,154.77 feet) west of the RDU 11 inadvertent releases and will not be impacted directly by the inadvertent release. LA 203099 is recommended not eligible for listing in the NRHP under any Criteria. The site is mostly outside the APE and is approximately 15 m (15 feet) north of the path of investigation for core sampling. The path of investigation will have no effect on the site and furthermore, the site is recommended not eligible. SWCA recommends no additional management is necessary.

In accordance with policies and regulations outlined in Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, the cultural resources inventory was completed to locate, identify, and record any cultural resources that might be affected within the APE of the proposed project and to provide recommendations of eligibility for the NRHP.

Table 5-1 summarizes the cultural resources recorded within the project APE and their NRHP eligibility and management recommendations.

Table 5-1. Site Summary, Eligibility, and Mitigation Recommendations

Site No.	Site Type/Cultural Affiliation and Dates	Description	NRHP Eligibility Recommendation/ Criterion	Recommended Management
LA 37857	Artifact scatter with features/Unknown Aboriginal, unspecified Prehistoric to unspecified Historic (9500 B.C.–A.D. 1550)	A small prehistoric site with a low-density artifact scatter located in a residual dune field with a single feature that was not intact.	Not eligible	No further management is recommended.
LA 86207	Artifact scatter with features/ Jornada Mogollon, Late Pithouse (A.D. 750–1100); Early Pueblo (A.D. 1100–1175)	A large prehistoric artifact scatter within a dune and interdunal area.	Eligible, Criterion D	Continued avoidance. No further management is recommended.

Site No.	Site Type/Cultural Affiliation and Dates	Description	NRHP Eligibility Recommendation/ Criterion	Recommended Management
LA 122397	Artifact scatter with features	A dense prehistoric artifact scatter.	Eligible, Criterion D	SWCA recommends a cultural monitor be present during soil sampling as well as a fence be constructed on the south side of the site.
LA 203097	Artifact scatter with features	A low-density prehistoric site with a single fire-cracked rock (FCR) concentration, in a residual dune field.	Eligible, Criterion D	SWCA recommends a cultural monitor be present during soil sampling and recommends fencing on the north side of the site.
LA 203098	Artifact scatter with features	A small prehistoric site with a moderate to high density artifact scatter in a dune blowout associated with two thermal features.	Eligible, Criterion D	SWCA recommends that a cultural monitor be present during the soil sampling process. It is also recommended that fencing be installed around the southern boundary of the site.
LA 203099	Artifact scatter	A small prehistoric site with a high-density artifact scatter, within a deeply eroded residual dune field	Not eligible	No further action is recommended

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APPENDIX C

Referenced Well Record

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

APPENDIX D

Lithologic Sampling Logs

eTECH	Sample Name: BH01	Date: 10/30/2023
	Site Name: ROSS DRAW UNIT #011	
	Incident Number: NHMP1412241998	
	Job Number: 18134	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EK	Method: Hand Auger
Site Coordinates: 32.020568, -103.867369	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
					0	0	SP-SM	(0-4') SAND, dry, brown, very fine to fine, some silt,
Dry	<112	0	No	BH01	0.5			some organic, no stain, no odor.
Dry	<112	0	No	BH01	1	1		@ 2' no more organic
Dry	188	0	No	BH01	2	2		
						3		
Dry	592	0	No	BH01	4	4		

Total depth

eTECH	Sample Name: BH02	Date: 10/30/2023
	Site Name: ROSS DRAW UNIT #011	
	Incident Number: NHMP1412241998	
	Job Number: 18134	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EK	Method: Hand Auger
Site Coordinates: 32.020568, -103.867369	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
					0	0	SP-SM	(0-4') SAND, dry, brown, very fine to fine, some silt,
Dry	<112	0	No	BH02	0.5			some organic, no stain, no odor.
Dry	<112	0	No	BH02	1	1		@ 2' no more organic
Dry	248	0	No	BH02	2	2		
						3		
Dry	708	0	No	BH02	4	4		

Total depth

eTECH	Sample Name: BH02	Date: 10/30/2023
	Site Name: ROSS DRAW UNIT #011	
	Incident Number: NHMP1412241998	
	Job Number: 18134	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: EK	Method: Hand Auger
Site Coordinates: 32.020568, -103.867369	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
					0	0	SP-SM	(0-4') SAND, dry, brown, very fine to fine, some silt,
Dry	<112	0	No	BH03	0.5			some organic, no stain, no odor.
Dry	<112	0	No	BH03	1	1		@ 2' no more organic
Dry	216	0	No	BH03	2	2		
						3		
Dry	768	0	No	BH03	4	4		

Total depth

APPENDIX E

Photographic Log

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers:NHMP1412241998

Photograph 1 **Date: 10/30/2023**
Description: Southwestern view of delineation activities.

Photograph 2 **Date: 10/30/2023**
Description: Northwestern view of delineation activities.

Photograph 3 **Date: 10/30/2023**
Description: Northwestern view of delineation activities.

Photograph 4 **Date: 10/30/2023**
Description: Southeastern view of delineation activities.

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nHMP1412241998

Photograph 5 **Date: 03/06/2024**
Description: Southwestern view of vegetation along path of investigation.

Photograph 6 **Date: 03/06/2024**
Description: Northwestern view of vegetation along path of investigation.

Photograph 7 **Date: 03/06/2024**
Description: Northeastern view of vegetation along path of investigation.

Photograph 8 **Date: 03/06/2024**
Description: Northwestern view of vegetation along path of investigation.

APPENDIX F

Tables

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples - Incident Number NHMP1412241998										
BH01	10/30/2023	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH01	10/30/2023	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH01	10/30/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	161
BH01	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	539
BH02	10/30/2023	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH02	10/30/2023	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH02	10/30/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	165
BH02	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	602
BH03	10/30/2023	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH03	10/30/2023	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH03	10/30/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	156
BH03	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	586

"Notes:
bgs: below ground surface
mg/kg: milligrams per kilogram
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMOCD: New Mexico Oil Conservation Division
NMAC: New Mexico Administrative Code
Text in ""grey"" represents excavated soil samples
Concentrations in bold exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard † for Soils Impacted by a Release
† The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

APPENDIX G

Laboratory Analytical Reports & Chain-of-Custody Documentation

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E311005
Job Number:	01058-0007
Received:	11/1/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E311005
Date Received: 11/1/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 0.5'	E311005-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
BH01 1'	E311005-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
BH02 0.5'	E311005-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
BH02 1'	E311005-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
BH03 0.5'	E311005-05A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
BH03 1'	E311005-06A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH01 0.5'

E311005-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.0 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.5 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*84.6 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

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Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH01 1'

E311005-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.9 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.9 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*82.8 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH02 0.5'

E311005-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.3 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.3 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*85.6 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

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Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH02 1'

E311005-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*92.9 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*96.1 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*85.9 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH03 0.5'

E311005-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.0 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.3 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*86.3 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

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Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

BH03 1'

E311005-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.1 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.3 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*82.9 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	ND	20.0	1	11/03/23	11/04/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2344054-BS1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.10	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			
Matrix Spike (2344054-MS1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.18	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.09	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
Matrix Spike Dup (2344054-MSD1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.10	0.0250	5.00	ND	102	54-133	1.63	20	
Ethylbenzene	5.02	0.0250	5.00	ND	100	61-133	1.28	20	
Toluene	5.07	0.0250	5.00	ND	101	61-130	1.57	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	1.42	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	1.08	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	1.19	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.69*		*8.00*		*96.2*	*70-130*			
LCS (2344054-BS2)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.71*		*8.00*		*96.4*	*70-130*			
Matrix Spike (2344054-MS2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.9	20.0	50.0	ND	93.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.66*		*8.00*		*95.7*	*70-130*			
Matrix Spike Dup (2344054-MSD2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130	0.186	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:52AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344100-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	ND	20.0							
LCS (2344100-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2344100-MS1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	531	400	250	ND	213	80-120			M5
Matrix Spike Dup (2344100-MSD1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	535	400	250	ND	214	80-120	0.754	20	M5

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:46

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E311005	01058-0007				5 day TAT		
							RCRA

State: NM x | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
11:20	10.30.23	S	1	BH01	1	0.5'								x				
11:30	10.30.23	S	1	BH01	2	1'								x				
12:00	10.30.23	S	1	BH02	3	0.5'								x				
12:10	10.30.23	S	1	BH02	4	1'								x				
12:40	10.30.23	S	1	BH03	5	0.5'								x				
12:50	10.30.23	S	1	BH03	6	1'								x				

10/30/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		[signature]	10-31-23	1045
[signature]	10-31-23	1545	[signature]	10-31-23	1730
[signature]	10-31-23	2400	[signature]	11-1-23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 1:50:10PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:18	Work Order ID:	E311005
Phone:	(539) 573-4018	Date Logged In:	11/01/23 12:45	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sample names on containers did not match sample names on COC. Client asked to use sample names listed on COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E311001
Job Number:	01058-0007
Received:	11/1/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E311001
Date Received: 11/1/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:44

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 2'	E311001-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:44:51AM

BH01 2'

E311001-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.4 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.6 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		*86.2 %*	*50-200*	*11/02/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	**161**	20.0	1	11/03/23	11/04/23	

envirotech Inc.

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:44:51AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2344054-BS1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.10	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			
Matrix Spike (2344054-MS1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.18	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.09	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
Matrix Spike Dup (2344054-MSD1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.10	0.0250	5.00	ND	102	54-133	1.63	20	
Ethylbenzene	5.02	0.0250	5.00	ND	100	61-133	1.28	20	
Toluene	5.07	0.0250	5.00	ND	101	61-130	1.57	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	1.42	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	1.08	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	1.19	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:44:51AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.69*		*8.00*		*96.2*	*70-130*			
LCS (2344054-BS2)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.71*		*8.00*		*96.4*	*70-130*			
Matrix Spike (2344054-MS2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.9	20.0	50.0	ND	93.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.66*		*8.00*		*95.7*	*70-130*			
Matrix Spike Dup (2344054-MSD2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130	0.186	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:44:51AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344070-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.5*		*50.0*		*90.9*	*50-200*			
LCS (2344070-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.6	38-132			
Surrogate: n-Nonane	*40.0*		*50.0*		*80.0*	*50-200*			
Matrix Spike (2344070-MS1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	225	25.0	250	ND	89.9	38-132			
Surrogate: n-Nonane	*41.7*		*50.0*		*83.4*	*50-200*			
Matrix Spike Dup (2344070-MSD1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	219	25.0	250	ND	87.6	38-132	2.55	20	
Surrogate: n-Nonane	*41.8*		*50.0*		*83.5*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:44:51AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344100-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	ND	20.0							
LCS (2344100-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2344100-MS1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	531	400	250	ND	213	80-120			M5
Matrix Spike Dup (2344100-MSD1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	535	400	250	ND	214	80-120	0.754	20	M5

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:44

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only	TAT	EPA Program
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E311001 / Job Number 01058.0007	1D / 2D / 3D / Standard: 5 day TAT	CWA / SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.			
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method		RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502			
Phone: 832-541-7719	Email: jim.raley@dvn.com			State
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM			NM / CO / UT / AZ / TX
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755			NM: x

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
11:40	10.30.23	S	1	BH01	1	2'								X				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		Michelle Gonzales	10-31-23	1045
Michelle Gonzales	10-31-23	1545	[signature]	10.31.23	1730
[signature]	10.31.23	2400	Caitlin Mac	11.1.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ______ T2 ______ T3 ______
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 12:33:03PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:15	Work Order ID:	E311001
Phone:	(539) 573-4018	Date Logged In:	11/01/23 12:28	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sample names on containers did not match sample names on COC. Client asked to use sample names listed on COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310307
Job Number:	01058-0007
Received:	11/1/2023

Revision: 3

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/8/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/8/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310307
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/08/23 09:36

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 4'	E310307-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/8/2023 9:36:00AM

BH01 4'

E310307-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*85.4 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**539**	20.0	1	11/04/23	11/06/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/8/2023 9:36:00AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/8/2023 9:36:00AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/8/2023 9:36:00AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/8/2023 9:36:00AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/08/23 09:36

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

01058-00074

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only	TAT				EPA Program
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E340307	Job Number ~~01058-00074~~	1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.						5 day TAT		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method							RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502								
Phone: 832-541-7719	Email: jim.raley@dvn.com							State	
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM							NM CO UT AZ TX	
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755							x	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
11:50	10.30.23	S	1	BH01	1	4'								X				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
~~Kyle~~	10/31/2023		Michelle Young	10-31-23	1045
Michelle Young	10-31-23	1545	Andrew Mata	10.31.23	1730
Andrew Mata	10.31.23	2400	Lacy Rodgers	11/1/23	8:30

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 3:54:38PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310307
Phone:	(539) 573-4018	Date Logged In:	10/31/23 14:57	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310310
Job Number:	01058-0007
Received:	11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310310
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 14:24

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH02 2'	E310310-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 2:24:14PM

BH02 2'

E310310-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.7 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.7 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*85.3 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**165**	20.0	1	11/04/23	11/07/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 2:24:14PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 2:24:14PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 2:24:14PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 2:24:14PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 14:24

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

0058-0007

Client: WPX Energy Permian, LLC.	Bill To
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310310	~~01108-0107~~				5 day TAT		
							RCRA

State: NM x | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:20	10.30.23	S	1	BH02	1	2'								x				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		Michelle Gonzales	10.31.23	1045
Michelle Gonzales	10.31.23	1545	[signature] Musso	10.31.23	1730
[signature] Musso	10.31.23	2400			

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

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Envirotech Analytical Laboratory

Printed: 11/1/2023 4:02:49PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310310
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:32	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E311002
Job Number:	01058-0007
Received:	11/1/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E311002
Date Received: 11/1/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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QC - Anions by EPA 300.0/9056A 9

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:45

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH02 4'	E311002-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:18AM

BH02 4'

E311002-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.2 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.6 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*86.1 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	**602**	20.0	1	11/03/23	11/04/23	

envirotech Inc.

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:18AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2344054-BS1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.10	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			
Matrix Spike (2344054-MS1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.18	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.09	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
Matrix Spike Dup (2344054-MSD1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.10	0.0250	5.00	ND	102	54-133	1.63	20	
Ethylbenzene	5.02	0.0250	5.00	ND	100	61-133	1.28	20	
Toluene	5.07	0.0250	5.00	ND	101	61-130	1.57	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	1.42	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	1.08	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	1.19	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:18AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.69*		*8.00*		*96.2*	*70-130*			
LCS (2344054-BS2)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.71*		*8.00*		*96.4*	*70-130*			
Matrix Spike (2344054-MS2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.9	20.0	50.0	ND	93.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.66*		*8.00*		*95.7*	*70-130*			
Matrix Spike Dup (2344054-MSD2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130	0.186	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:18AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:18AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344100-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	ND	20.0							
LCS (2344100-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2344100-MS1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	531	400	250	ND	213	80-120			M5
Matrix Spike Dup (2344100-MSD1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	535	400	250	ND	214	80-120	0.754	20	M5

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:45

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley
Address: 5315 Buena Vista Dr.
City, State, Zip: Carlsbad, NM, 88220
Phone: 575-885-7502
Email: jim.raley@dvn.com
WBS/WO: MM-155117.AL.RNM
Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only

Lab WO# E311002 | Job Number 01058-0007

TAT

1D	2D	3D	Standard
			5 day TAT

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX	
x					

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:30	10.30.23	S	1	BH02	1	4'								X				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	10/31/2023		Michelle Gaytan	10.31.23	1045
Michelle Gaytan	10.31.23	1545	[illegible] MSS	10.31.23	1730
[illegible] MSS	10.31.23	2400	Cartha Mar	11.1.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 1:24:56PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:15	Work Order ID:	E311002
Phone:	(539) 573-4018	Date Logged In:	11/01/23 12:41	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sample names on containers did not match sample names on COC. Client asked to use sample names listed on COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E311003
Job Number:	01058-0007
Received:	11/1/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E311003
Date Received: 11/1/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:45

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH03 2'	E311003-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:48AM

BH03 2'

E311003-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.2 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.5 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*87.8 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	**156**	20.0	1	11/03/23	11/04/23	

envirotech Inc.

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:48AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2344054-BS1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.10	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			
Matrix Spike (2344054-MS1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.18	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.09	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
Matrix Spike Dup (2344054-MSD1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.10	0.0250	5.00	ND	102	54-133	1.63	20	
Ethylbenzene	5.02	0.0250	5.00	ND	100	61-133	1.28	20	
Toluene	5.07	0.0250	5.00	ND	101	61-130	1.57	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	1.42	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	1.08	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	1.19	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:48AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.69*		*8.00*		*96.2*	*70-130*			
LCS (2344054-BS2)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.71*		*8.00*		*96.4*	*70-130*			
Matrix Spike (2344054-MS2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.9	20.0	50.0	ND	93.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.66*		*8.00*		*95.7*	*70-130*			
Matrix Spike Dup (2344054-MSD2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130	0.186	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:48AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:45:48AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344100-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	ND	20.0							
LCS (2344100-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2344100-MS1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	531	400	250	ND	213	80-120			M5
Matrix Spike Dup (2344100-MSD1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	535	400	250	ND	214	80-120	0.754	20	M5

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:45

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley
Address: 5315 Buena Vista Dr.
City, State, Zip: Carlsbad, NM, 88220
Phone: 575-885-7502
Email: jim.raley@dvn.com
WBS/WO: MM-155117.AL.RNM
Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only

Lab WO# E311003 | Job Number 21058.0007

TAT

1D | 2D | 3D | Standard: 5 day TAT

EPA Program

CWA | SDWA | RCRA

State

NM: x | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
13:00	10.30.23	S	1	BH03	1	2'						X		

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[illegible]	10/31/23		Michelle Georgale	10.31.23	1045
Michelle Georgale	10-31-23	1545	[illegible] MSO	10-31-23	1730
[illegible] MSO	10.31.23	2400	Cath Mar	11.1.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 | T2 | T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 1:52:01PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:15	Work Order ID:	E311003
Phone:	(539) 573-4018	Date Logged In:	11/01/23 12:42	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sample names on containers did not match sample names on COC. Client asked to use sample names listed on COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E311004
Job Number:	01058-0007
Received:	11/1/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E311004
Date Received: 11/1/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH03 4'	E311004-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:23AM

BH03 4'

E311004-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Benzene	ND	0.0250	1	11/01/23	11/05/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/05/23	
Toluene	ND	0.0250	1	11/01/23	11/05/23	
o-Xylene	ND	0.0250	1	11/01/23	11/05/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/05/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/05/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.9 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344054
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/05/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.2 %*	*70-130*	*11/01/23*	*11/05/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344092
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*87.2 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344100
Chloride	**586**	20.0	1	11/03/23	11/04/23	

envirotech Inc.

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:23AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2344054-BS1)									Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.10	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			
Matrix Spike (2344054-MS1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.18	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.09	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.8*	*70-130*			
Matrix Spike Dup (2344054-MSD1)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Benzene	5.10	0.0250	5.00	ND	102	54-133	1.63	20	
Ethylbenzene	5.02	0.0250	5.00	ND	100	61-133	1.28	20	
Toluene	5.07	0.0250	5.00	ND	101	61-130	1.57	20	
o-Xylene	5.02	0.0250	5.00	ND	100	63-131	1.42	20	
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131	1.08	20	
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131	1.19	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:23AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344054-BLK1)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.69*		*8.00*		*96.2*	*70-130*			
LCS (2344054-BS2)									Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.71*		*8.00*		*96.4*	*70-130*			
Matrix Spike (2344054-MS2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.9	20.0	50.0	ND	93.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.66*		*8.00*		*95.7*	*70-130*			
Matrix Spike Dup (2344054-MSD2)				**Source: E311002-01**					Prepared: 11/01/23 Analyzed: 11/05/23
Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130	0.186	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:23AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344092-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.1*		*50.0*		*86.3*	*50-200*			
LCS (2344092-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	211	25.0	250		84.5	38-132			
Surrogate: n-Nonane	*41.2*		*50.0*		*82.4*	*50-200*			
Matrix Spike (2344092-MS1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132			
Surrogate: n-Nonane	*37.6*		*50.0*		*75.1*	*50-200*			
Matrix Spike Dup (2344092-MSD1)				**Source: E310306-24**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.3	38-132	2.64	20	
Surrogate: n-Nonane	*43.5*		*50.0*		*86.9*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 11:46:23AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344100-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	ND	20.0							
LCS (2344100-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2344100-MS1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	531	400	250	ND	213	80-120			M5
Matrix Spike Dup (2344100-MSD1)				**Source: E310300-03**					Prepared: 11/03/23 Analyzed: 11/04/23
Chloride	535	400	250	ND	214	80-120	0.754	20	M5

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 11:46

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley	
Address: 5315 Buena Vista Dr.	
City, State, Zip: Carlsbad, NM, 88220	
Phone: 575-885-7502	
Email: jim.raley@dvn.com	
WBS/WO: MM-155117.AL.RNM	
Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Lab Use Only: Lab WO# E311004 | Job Number 10058.0007

TAT: 1D | 2D | 3D | Standard: 5 day TAT

EPA Program: CWA | SDWA | RCRA

State: NM x | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
13:10	10.30.23	S	1	BH03	1	4'						X		

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Edyte Konan	10/31/2023		Michelle Clegg	10.31.23	1045
Michelle Clegg	10.31.23	1545	[illegible]	10.31.23	1730
[illegible]	10.31.23	2400	[illegible]	11.1.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 1:55:15PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:15	Work Order ID:	E311004
Phone:	(539) 573-4018	Date Logged In:	11/01/23 12:44	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sample names on containers did not match sample names on COC. Client asked to use sample names listed on COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

APPENDIX H

BLM and NMOCD Correspondence

Erick Herrera

From: Joseph Hernandez
Sent: Friday, January 19, 2024 2:03 PM
To: Devon-Team
Subject: FW: [EXTERNAL] FW: RDU 11 Cultural Survey

Joseph S. Hernandez
Senior Managing Geologist
eTECH Environmental & Safety Solutions, Inc.
Cell: (432) 305-6413

From: Arias, Arthur A <aaarias@blm.gov>
Sent: Friday, January 19, 2024 11:17 AM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Raley, Jim <Jim.Raley@dvn.com>
Subject: Fw: [EXTERNAL] FW: RDU 11 Cultural Survey

Here is a response from the local Archaeologist, after reviewing the information don't think any additional survey will be needed.
Thanks..

From: Whaley, Aaron W <awhaley@blm.gov>
Sent: Thursday, January 18, 2024 7:40 AM
To: Arias, Arthur A <aaarias@blm.gov>
Subject: Re: [EXTERNAL] FW: RDU 11 Cultural Survey

I am all good on the sampling and the work that has been done. As long as they are not needed to do any physical disturbing work within the arch avoidance areas, I am all set for cultural.

Best,

Aaron

Aaron Whaley

Supervisory Archaeologist

Carlsbad Field Office

Bureau of Land Management

575 725 1623 (c)

575-234-5986 (o)

From: Arias, Arthur A <aaarias@blm.gov>
Sent: Wednesday, January 17, 2024 1:58 PM
To: Whaley, Aaron W <awhaley@blm.gov>
Subject: Fw: [EXTERNAL] FW: RDU 11 Cultural Survey

Do you have any other concerns for this spill to address..

From: Joseph Hernandez <joseph@etechenv.com>
Sent: Tuesday, January 16, 2024 10:23 AM
To: Arias, Arthur A <aaarias@blm.gov>
Cc: jim.raley@dvn.com <jim.raley@dvn.com>
Subject: [EXTERNAL] FW: RDU 11 Cultural Survey

Art,

Hope all is well - Just to bring you up to speed here for incident # **nHMP1412241998**:

- We were working with Devon Energy/WPX to complete an NMOCD approved work plan that proposed remediation/sampling plan for a few reportable incidents.
- Our work plan proposed sampling within a path of investigation for incident number nHMP1412241998. A cultural study was conducted by SWCA which was positive (buffer area shown in attachment).
- Delineation soil samples were advanced within the eastern area of the path of investigation and lab data suggested no impacts above reclamation standards (map and figure shown in attachment).
- There was an excavation performed (NE) for other incidents nAB1728551205 & nAB1728553778 that overlapped nHMP1412241998 . All final confirmation samples associated with that excavation meet NMOCD closure criteria and/or reclamation standards. Site is designated with most lenient NMOCD standards based on the site characterization.

We were requesting guidance from the BLM if any further sampling is necessary and if this data is sufficient to close this incident with the BLM/NMOCD to minimize disturbance near the cultural buffer areas by sampling based on lab data for delineation samples collected nearest the source.

Let me know if you have any questions or need anything from us.

Thanks,

Joseph S. Hernandez

Senior Managing Geologist

Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, January 15, 2024 12:26 PM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: RDU 11 Cultural Survey

Aaron mentioned that there was no need for any additional sampling on the cultural side but did mention that the conversations about the soil samples results and cleanup will need to take place directly with the BLM EPS folks. Ultimately, if as long as Art signs off then the cultural side shouldn't need anything else, sample wise.

The contact to reach out to would be Art Arias (aaarias@BLM.gov). He's the individual that looked into the RDU 54 samples. I'm not entirely sure what he will require but I would suggest providing him with the incident number so he can verify it was reported and sending along your soil samples for the project.

Let me know if there's anything else I can find out for you before you reach out.

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com

From: Joseph Hernandez <joseph@etechenv.com>
Sent: Monday, January 15, 2024 1:10 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Can you clarify what they are good on for the cultural side? Like for us to not continue sampling and that the data we provided is sufficient for closure?

Who do we contact at the BLM EPS and what do we need to provide them?

Joseph S. Hernandez

Senior Managing Geologist

Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, January 15, 2024 11:10 AM
To: Joseph Hernandez <joseph@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: RDU 11 Cultural Survey

Hi Joseph,

I wrote back last week that cultural at the BLM had no issues going forward and I also sent a redacted version of the report on the 9th. Is ther anything else you have questions about?

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com

From: Joseph Hernandez <joseph@etechenv.com>
Sent: Monday, January 15, 2024 12:07 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Courtney,

Have you heard anything back from the BLM on this RDU 11?

Joseph S. Hernandez

Senior Managing Geologist

Cell: (432) 305-6413

From: Joseph Hernandez
Sent: Monday, January 8, 2024 2:54 PM
To: Courtney Blair <CBlair@swca.com>

Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Yes, here you go.

We've included a map, table, and lab report. The only exceedances were part of the excavation to the northeast, but the sidewalls and floors of that excavation now meet reclamation requirements. Since concentrations at BH01 through BH03 were under reclamation standards, we did not investigate west of the buffers to minimize any additional soil disturbance near the buffers.

Thanks

Joseph S. Hernandez

Senior Managing Geologist

eTECH Environmental & Safety Solutions

Cell: (432) 305-6413

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, January 8, 2024 11:30 AM
To: Joseph Hernandez <joseph@etechenv.com>; Anna Byers <anna@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: RDU 11 Cultural Survey

Hi Joseph,

Do you have a copy of the lab results that I can send to the Arch department at the BLM so they can see that the results are clean?

Courtney Blair

Associate Project Archaeologist

SWCA Environmental Consultants

Cell: (617) 435-2083

cblair@swca.com

From: Joseph Hernandez <joseph@etechenv.com>
Sent: Monday, January 8, 2024 10:44 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Hey Courtney,

Wanted to follow up on this when you get a chance.

Joseph S. Hernandez

Senior Managing Geologist

Cell: (432) 305-6413

From: Joseph Hernandez
Sent: Thursday, January 4, 2024 11:27 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: RDU 11 Cultural Survey

Courtney,

We just wanted to let you know, we sampled within the path of investigation while staying away from the sensitive areas. The data is clean, but we were just wanting some guidance from the BLM if any further sampling is necessary and if this data is sufficient to close this incident. We don't want to further to disturb the area with any sampling.

We are trying to see if we can develop the same approach as we did the RDU 54 where BLM agreed to leave impacts in place but in this situation no impacts were found.

Let me know if you have any questions or need anything from us.

Joseph S. Hernandez

Senior Managing Geologist

Work: (432) 305-6413

Cell: (281) 702-2329

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Tuesday, October 24, 2023 10:24 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD; Wells, Shelly, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

No problem, thank you for the update.

Your request for an extension to **January 18th, 2024** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Friday, October 20, 2023 8:42 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Robert,

To summarize the below extension request. Basically we could not start excavation till BLM gave the OK on a cultural site they were considering possibly significant. When they finally did give the OK to proceed, we started immediately on the excavation, but we just don't have time to finish excavation and reporting by the current deadline of October, 20th. We are in the middle of the excavation and plan on delivering closure as soon as completed. Delay on this project was out of our control.

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for a report required in 19.15.29.12.B.(1) NMAC at the Ross Draw Unit #011 (Site) associated with the following Incident Numbers: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755.

An extensive cultural survey was required by the Bureau of Land Management (BLM) for the proposed work areas in pasture soil prior to conducting remediation activities to address the Incident Numbers listed above according to a Remediation Work Plan approved on October 19, 2022. SWCA was contracted to conduct the cultural survey, which began on May 2, 2023, the earliest a field crew was available. The cultural survey was completed over the course of approximately 2.5 weeks, and a subsequent report was submitted to the BLM for review on July 28, 2023. On August 14,

2023, SWCA received report edits from the BLM, which were addressed in accordance with subsequent correspondence with the BLM. The revised report was re-submitted to the BLM for review on September 1, 2023, which was determined to require minor edits prior to approval. SWCA submitted the finalized report on September 8, 2023, and on September 21, 2023, the BLM approved the sundry with monitoring stipulations and remediation activities began on October 2, 2023. Excavation activities are still currently on-going and approximately 50% of the proposed excavation area remains.

To provide enough time to complete remediation activities, soil sampling analyses, and prepare a subsequent report, WPX requests a 90-day extension of the deadline for the multiple Incident Numbers at the Site to **January 18, 2023.**

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 9:36 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011
Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from todays date or timeframe NMOCD deems reasonable.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Raley, Jim
Sent: Tuesday, May 2, 2023 8:29 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RDU 11 Extension

Robert,
We had a tentative due date of (4/21/2023) to complete excavation at the RDU 11 for several incidents. BLM has requested a fairly extensive cultural survey before we can begin excavation. We are currently waiting on the archeological vendor (SWCA) to complete the survey and have BLM review. Due to this delay we would like to request an extension to the due to date to 7/20/2023.

(nAPP2200728755, nAB1632647780, nAB1712951426, nAB1728551205, nAB1728553778, nHMP1412241998)

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

Erick Herrera

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, August 21, 2023 3:05 PM
To: Raley, Jim
Cc: Devon-Team
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Hi Jim,

Do you have an availability tomorrow for a call? I can set one up just to quickly go over your plan.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Monday, August 21, 2023 3:31 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
Thank your for reaching out to him. We will not enter the areas of concern outside the already disturbed ROW without further consultation, for both sampling or excavation.

We do not plan on getting anywhere near those areas with excavation equipment. We may start excavation soon on the areas around the battery that have no sites.

If you have any concerns about digging please set up Teams call and we can show you our plan. So BLM does not worry about us getting into those sites without consultation.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, August 21, 2023 9:42 AM
To: Raley, Jim <Jim.Raley@dvn.com>

Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Good morning Jim,

Brandon is fine with using the ROW for sampling, but he will be recommending monitoring still for the sites when you're within 100 feet. I would also suggest some fencing on one or two of the sites to assist with avoidance.

Would you prefer to send an updated kmz/shapefile of the path within the ROW, or would you like our GIS to just create one for you? If you send over an updated kmz I can get those maps updated and also update the report with the change. I'll send over a small change order to reflect this work either later today or tomorrow.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Thursday, August 17, 2023 11:56 AM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
Sounds good. I do have one question. Running through all buffer areas is an obvious pipeline ROW, if we remain on the disturbed area of the pipeline ROW can we pass through the buffer area. In other words can we grab samples on the ROW and only need additional approval if we want to leave that ROW.

ROW marked in black

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Courtney Blair <CBlair@swca.com>
Sent: Thursday, August 17, 2023 9:38 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Jim,

Attached are four kmzs to use to potentially avoid the sites. These kmzs are the 100 ft buffers and not the actual site boundaries. As mentioned yesterday, Brandon suggests avoiding these areas to allow the reporting process to go faster.

- The kmzs labeled 'Avoid_Site1' through 'Avoid_Site3' are the individual buffered sites to avoid.
- The kmz labeled 'Avoid buffers 100 ft' is all 3 sites buffered in one file.
    - The 100 ft buffers of the three sites overlap so hopefully this gives you an option to play around with planning.
- Just to note, I did not include any sites that are not within 100 feet of the path of investigation or if the sites are not recommended eligible but there is a site to the southwest of these buffers to be mindful of. If you decide to move the path, I attached a screenshot to the email that shows a blue line of where to stay north of.

Let me know if you have any questions and what you end up deciding to do. If you decide to change the footprint of the path of investigation I can go ahead and update the report maps. I will put together a small change order for this effort which will include this coordination and updating the maps for the report if you choose to change the path.

Thanks,

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

SWCA | 100 Empl OWN

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, August 16, 2023 1:23 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: [EXTERNAL] RE: Cultural survey request - RDU 11

Ok sounds good.

Jim Raley - Enviro Professional

Permian Basin - Devon Energy

575-689-7597

From: Courtney Blair <CBlair@swca.com>
Sent: Wednesday, August 16, 2023 10:54:15 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

I think that would work. I can send you a 100 ft buffer of these three sites so you can see where to avoid along the path. I will put in a request now for that. We will be out of scope for this work although it shouldn't take very much time to do.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, August 16, 2023 12:48 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: Re: [EXTERNAL] RE: Cultural survey request - RDU 11

I would think we could adjust, or conduct our work within adjustment boundaries. Since we don't really know what is there we could stop short of crossing a boundary, if we should need to cross boundary then we would let you consult with BLM and may be able to avoid disturbance all together if BLM feels it will do more harm then good.
Please move forward if we can.

Jim Raley - Enviro Professional
Permian Basin - Devon Energy
575-689-7597

From: Courtney Blair <CBlair@swca.com>
Sent: Wednesday, August 16, 2023 10:36:12 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Jim,

I just got off the phone with Brandon. There is one site that is within 100 feet of the Path of Investigation and two sites where the Path enters site boundaries. Brandon was wondering if this Path could be adjusted to avoid these sites? If the path can avoid these sites by more than 100 ft it will help to push this report through faster otherwise it may take up to an additional month to get SHPO concurrence.

If the path can be adjusted, I can send you over 100 ft buffers of the three sites or send over an adjusted path from our GIS. Just let me know what works best for you. Brandon also said that if you have any specific questions you can also reach out to him directly.

Thanks,

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Monday, August 14, 2023 11:40 AM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
Hoping you might be able to check with BLM on this site, next time you talk to them.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, July 24, 2023 3:06 PM
To: Raley, Jim <Jim.Raley@dvn.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

This report is still being finalized. There are a few final edits. There will be two sites that likely will require a cultural monitor and a third that may require fencing. So far I don't think there will be any sites that will cause any issues. The sites that will need monitoring are along the path of investigation.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

SWCA | 100 Employee Owned

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Monday, July 24, 2023 4:51 PM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
We heard anything about approval on the RDU 11 from Aaron.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

From: Courtney Blair <CBlair@swca.com>
Sent: Friday, June 30, 2023 2:26 PM
To: Raley, Jim <Jim.Raley@dvn.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Hi Jim,

I wanted to update you that the RDU 11 report has gone out for editing. I will keep you posted when those edits are returned. I'm waiting to hear back from Aaron about whether the redacted version can be shared with NMOCD.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 28, 2023 11:58 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
Was wondering about status of RDU 11 cultural report and BLM.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

From: Raley, Jim
Sent: Monday, June 5, 2023 9:38 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Thank you.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

From: Courtney Blair <CBlair@swca.com>
Sent: Monday, June 5, 2023 9:34 AM
To: Raley, Jim <Jim.Raley@dvn.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Morning Jim,

The survey was finalized a couple weeks back. I'm working on writing up the cultural report now. It is a positive report. I should be able to get it ready for submittal on June 30th for you.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Monday, June 5, 2023 11:29 AM
To: Courtney Blair <CBlair@swca.com>; Anna Byers <anna@etechenv.com>
Cc: Joseph Hernandez <joseph@etechenv.com>
Subject: RE: [EXTERNAL] RE: Cultural survey request - RDU 11

Courtney,
Where are we at with the RDU 11 cultural survey. We will have to file extension with NMOCD and just need to update them on stage of approval.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Courtney Blair <CBlair@swca.com>
Sent: Thursday, May 4, 2023 12:44 PM
To: Anna Byers <anna@etechenv.com>
Cc: Raley, Jim <Jim.Raley@dvn.com>; Joseph Hernandez <joseph@etechenv.com>
Subject: [EXTERNAL] RE: Cultural survey request - RDU 11

Sorry for the delayed response. Our crew is out in the field this week conducting survey. There are a few previously recorded sites that they are revisiting. The crew also found potentially three new sites. The data would be in case any of the sites fall within the spills, but so far these sites only appear to be outside of any of the spill polygons. The data you sent was perfect for recent. I would say the last 6 months would be recent.

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

SWCA | 100 Employee Owned

From: Anna Byers <anna@etechenv.com>
Sent: Wednesday, May 3, 2023 3:23 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Raley, Jim <Jim.Raley@dvn.com>; Joseph Hernandez <joseph@etechenv.com>
Subject: RE: Cultural survey request - RDU 11

Hi Courtney,

Has the cultural survey for RDU 11 completed or was it rescheduled? I will check our data, however, could you please clarify what would be considered recent?

Thank you,
Anna

Anna Byers
Senior Geologist

eTECH Environmental & Safety Solutions, Inc.
Work: (432) 305-6415
Cell: (575) 200-6754

From: Courtney Blair <CBlair@swca.com>
Sent: Wednesday, May 3, 2023 1:06 PM
To: Joseph Hernandez <joseph@etechenv.com>; Anna Byers <anna@etechenv.com>
Cc: Raley, Jim <Jim.Raley@dvn.com>
Subject: RE: Cultural survey request - RDU 11

Hi Joseph and Anna,

Would it be possible to send over any potential core sample records for the spills near the RDU project location? There is a previous site that may go into the spill. If we have those records I can work with the BLM to see if testing and clean up would even need to be required, similar to how we are dealing with the North Brushy 35-6H project.

Thanks,

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Joseph Hernandez <jhernandez@ensolum.com>
Sent: Friday, March 31, 2023 2:51 PM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon Team <Devon-Team@ensolum.com>; Raley, Jim <Jim.Raley@dvn.com>
Subject: RE: Cultural survey request - North Brushy 35-6H

RDU 11 was PW/Oil and North Brushy was drilling mud/frac fluid.

Joseph S. Hernandez
Senior Geologist
281-702-2329
Ensolum, LLC

From: Courtney Blair <CBlair@swca.com>
Sent: Friday, March 31, 2023 12:46 PM
To: Joseph Hernandez <jhernandez@ensolum.com>
Cc: Devon Team <Devon-Team@ensolum.com>; Raley, Jim <Jim.Raley@dvn.com>
Subject: RE: Cultural survey request - North Brushy 35-6H

[**EXTERNAL EMAIL**]

Hi Jim and Joseph,

We have the RDU 11 Spill scheduled between April 21 through 26 and the North Brushy Draw 35-6H spill between April 30 and May 3. RDU 11 is located near three previously recorded archaeological sites while the North Brushy 35-6h spill is within a large site and another site is located within the remediation buffer area. I am currently coordinating with the BLM to see the level of effort with the site recording for both projects. What kind of releases were these spills? Were they both produced water?

I already sent over the RDU 11 scope. Once I hear back from the BLM on the level of effort for North Brushy I will send over a scope for that project as well.

Kind regards,

Courtney Blair
Cultural Specialist

SWCA Environmental Consultants
P: 505.254.1115 C: 617.435.2083
Cblair@swca.com

From: Joseph Hernandez <jhernandez@ensolum.com>
Sent: Thursday, March 23, 2023 11:28 AM
To: Courtney Blair <CBlair@swca.com>
Cc: Devon Team <Devon-Team@ensolum.com>; Raley, Jim <Jim.Raley@dvn.com>
Subject: Cultural survey request - North Brushy 35-6H
Importance: High

Courtney,

BLM requested a survey for this location. Remediation is needed within the access area to address a reportable release.

Please prepare a cost estimate for survey and reporting at your earliest convenience. Let me know if you need anything else.

Joseph S. Hernandez
Senior Geologist
281-702-2329
Ensolum, LLC

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Wednesday, October 25, 2023 2:52 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 25, 2023 1:18 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30th through November 3th, 2023:

Proposed Date: October 30, 2023, October 31, 2023, November 1, 2023, November 2, 2023, November 3, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thanks,

Erick Herrera

Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

APPENDIX I

Approved Remediation Work Plan

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
MAR 29 2014
NMOCD ARTESIA

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

24660 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company RKI EXPLORATION & PRODUCTION	Contact BRANDON RIPLEY-PRODUCTION FOREMAN
Address 210 PARK AVE, STE 900, OKC, OK 73102	Telephone No. 575-689-5431, 575-885-1313
Facility Name ROSS DRAW UNIT 11	Facility Type TRANSFER LINE

Surface Owner	Mineral Owner	API No. 30-015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	SOUTH	1980	EAST	EDDY

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release WATER & OIL	Volume of Release ~200 BBLS	Volume Recovered 0 BBLS
Source of Release PVC TRANSFER LINE	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? 3/18/2014	3/18/2014 ~8:30 AM
By Whom? RICHARD DAVIS	Date and Hour 3/21/2014 8:30 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

4" PVC TRANSFER LINE LEAKED DUE TO A HOLE, THE LEAK RAN APPX. 6/10 OF A MILE WEST THROUGH A RAVINE

Describe Area Affected and Cleanup Action Taken.*

WAITING ON RECOMMENDATION

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Heather Brehm

Printed Name: HEATHER BREHM

Title: REGUALTORY ANALYST

E-mail Address: hbrehm@rkixp.com

Date: 3/29/2014 Phone: 405-996-5769

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 5/2/14 Expiration Date: NA

Conditions of Approval:

Remediation per OCD Rule & Guidelines. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 6/2/14

Attached ☐

2RP-2286

* Attach Additional Sheets If Necessary

Bratcher, Mike, EMNRD

From: Heather Brehm <HBrehm@rkixp.com>
Sent: Saturday, March 29, 2014 4:18 PM
To: shughes@blm.gov; Bratcher, Mike, EMNRD
Cc: Joe Massey
Subject: RDU 11_SPILL REPORT
Attachments: RDU 11_C-141-signed_3.29.14.pdf

Attached is the C-141 report for the Ross Draw Unit 11.

Unfortunately, I will be out for a couple weeks for a knee surgery. Please contact Joe Massey if there is any further information required at this time.

Sol, I have forwarded Joe the tracking information so he will be in the loop with you on that until I return. I am, of course, available by email if there are any questions.

Thank You,

Heather Brehm
Regulatory Analyst
RKI Exploration and Production
210 Park Ave, Suite 900
Oklahoma City, OK 73102
405-996-5769 office
405-949-2221 main

Patterson, Heather, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Monday, April 07, 2014 11:18 AM
To: Joe Massey; Heather Brehm
Cc: shughes@blm.gov; Patterson, Heather, EMNRD
Subject: RE: RDU 11_SPILL REPORT

Joe,

The C-141 indicates a release of oil and produced water, however it lists total fluid volume released. For data entry purposes, we need to have at least an estimate of how much of the release was oil and how much was PW.

Thanks

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

---

from: Heather Brehm [mailto:HBrehm@rkixp.com]
Sent: Saturday, March 29, 2014 4:18 PM
To: shughes@blm.gov; Bratcher, Mike, EMNRD
Cc: Joe Massey
Subject: RDU 11_SPILL REPORT

Attached is the C-141 report for the Ross Draw Unit 11.

Unfortunately, I will be out for a couple weeks for a knee surgery. Please contact Joe Massey if there is any further information required at this time.

Sol, I have forwarded Joe the tracking information so he will be in the loop with you on that until I return. I am, of course, available by email if there are any questions.

Thank You,

Heather Brehm
Regulatory Analyst
RKI Exploration and Production
210 Park Ave, Suite 900
Oklahoma City, OK 73102
405-996-5769 office
405-949-2221 main

Bratcher, Mike, EMNRD

From: Heather Brehm <HBrehm@rkixp.com>
Sent: Friday, May 02, 2014 9:01 AM
To: Bratcher, Mike, EMNRD; Joe Massey
Cc: shughes@blm.gov; Patterson, Heather, EMNRD
Subject: RE: RDU 11_SPILL REPORT

Unfortunately, Joe is no longer with RKI so I will continue to handle the Spill incidents.
On that fluid breakdown I believe we were going to stick with the amount on the amended forms I most recently sent out.
Oil ~ 10 bbls
Water ~ 190 bbls
I am still waiting to hear back from Boone Archeological on their clean up recommendation.
Hope this helps and please let me know if there is any additional information you need.

Heather Brehm
RKI

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]
Sent: Friday, May 02, 2014 9:32 AM
To: Joe Massey; Heather Brehm
Cc: shughes@blm.gov; Patterson, Heather, EMNRD
Subject: RE: RDU 11_SPILL REPORT

Joe,

Please provide the requested information, even if just an estimate. Your estimate will be closer than mine. Also, please provide an update as to the status of the remediation of this release.

Thank you,

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

From: Bratcher, Mike, EMNRD
Sent: Monday, April 07, 2014 11:18 AM
To: Joe Massey; 'Heather Brehm'
Cc: shughes@blm.gov; Patterson, Heather, EMNRD
Subject: RE: RDU 11_SPILL REPORT

Joe,

The C-141 indicates a release of oil and produced water, however it lists total fluid volume released. For data entry purposes, we need to have at least an estimate of how much of the release was oil and how much was PW.

Thanks

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

---

from: Heather Brehm [mailto:HBrehm@rkixp.com]
Sent: Saturday, March 29, 2014 4:18 PM
To: shughes@blm.gov; Bratcher, Mike, EMNRD
Cc: Joe Massey
Subject: RDU 11_SPILL REPORT

Attached is the C-141 report for the Ross Draw Unit 11.

Unfortunately, I will be out for a couple weeks for a knee surgery. Please contact Joe Massey if there is any further information required at this time.

Sol, I have forwarded Joe the tracking information so he will be in the loop with you on that until I return. I am, of course, available by email if there are any questions.

Thank You,

Heather Brehm
Regulatory Analyst
RKI Exploration and Production
210 Park Ave, Suite 900
Oklahoma City, OK 73102
405-996-5769 office
405-949-2221 main

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Robert Hamlet Date: 5/4/2022

- [ ] Approved
- [x] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Robert Hamlet Date: 5/4/2022

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dvn.com	Incident # *(assigned by OCD)* nAPP2200728755
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

Location of Release Source

Latitude 32.0224991 Longitude -103.8669281
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ROSS DRAW UNIT #011	Site Type: Oil Production Site
Date Release Discovered: January 4th. 2022	API# *(if applicable) 30-015-24307*

Unit Letter	Section	Township	Range	County
O	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 20	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 24	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Dump malfunctioned on separator, causing fluids to escape from PRV and impact soils in dirt secondary containment, pad surface and slightly off-pad.

[Saturated Soil Volume yds^3 x percent porosity x (6.41187 bbls/1 yds^3)] = bbls of residual fluid in soil
[Fluid Volume yds^3 x (6.41187 bbls/1 yds^3)] = bbls of free-standing fluid

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc) Via email sent to Mike Bratcher, Emily Hernandez and Robert Hamlet on 1/4/2022	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____James Raley_____ Title: Environmental Specialist _____

Signature: _____ _____ Date: ___1/10/2022_____

email: ___jim.raley@dvn.com_____ Telephone: ___575-689-7597_____

OCD Only

Received by: Ramona Marcus Date: 1/10/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 71386
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

REMEDIATION WORK PLAN AND DEFERRAL REQUEST REPORT

Site Location:

Ross Draw Unit #011
Eddy County, New Mexico
Incident Numbers:
NHMP1412241998
nAB1632647780
nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755

April 1, 2022
Ensolum Project No. 03A1987006

Prepared for:

WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley

Prepared by:

Joseph S. Hernandez
Senior Geologist

Ashley Ager, M.S., PG
Program Director, Geologist

ENSOLUM

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1.1 Site Description & Releases Overview ..... 1&2
1.2 Site Characterization ..... 2&3
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2.1 Delineation Activities ..... 3&4
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4.0 DEFFERAL REQUEST ..... 4&5
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APPENDICES

Appendix A: Figure 1 – Site Map
Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)
Figure 2B – Delineation Soil Sample Locations (nAB172855377 and nAB1728551205)
Figure 3 – Area of Concern Tract (NHMP1412241998)
Figure 4 – Proposed Excavation Extent

Appendix B: Well Record

Appendix C: Lithologic Soil Sampling Logs

Appendix D: Photographic Log

Appendix E: Tables

Appendix F: Laboratory Analytical Reports & Chain-of-Custody Documentation

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Remediation Work Plan Report (RWP) to document site assessment, soil sampling activities and preliminary corrective actions performed to date by WPX Permian Energy, LLC (WPX) at the Ross Draw Unit #011 (hereinafter referred to as the "Site") in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico **(Figure 1 in Appendix A).** Based on field observations, field screening activities and review of the laboratory analytical results from delineation soil sampling activities at the Site, WPX respectfully submits this RWP, which summarizes soil sampling activities and initial response efforts that have occurred and proposes additional remediation and soil sampling activities to further investigate and address reportable releases of produced water and/or crude oil at the Site.

Additionallly, WPX has provided relevant information from a recent deferral request (Incident Number NRM2034258716), authored by WSP USA Inc. (WSP) and approved by New Mexico Oil Conservation Division (NMOCD) on January 13, 2022 for a release that overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the field summary and laboratory analytical data as it is applicable in the deferral request for Incident Number nAB1632647780. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.022210° N, 103.867013°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land **(Figure 1 in Appendix A)**.

NHMP1412241998

On March 18, 2014, a 4-inch PVC transfer line leaked and caused 200 barrels (bbls) of oil and produced water to be released and migrate southwest-west approximately 0.6 miles through the pasture. No fluids were able to be recovered immediately. WPX reported the release to the NMOCD via email and with a subsquent Corrective Action Form C-141 (Form C-141) dated March 29, 2014. The release was assigned Incident Number NHMP1412241998.

nAB1632647780

On November 5, 2016, a pump air locked and caused an oil tank to overfill and release approximately 70 bbls of crude oil into the earthen containment berm. No fluids escaped the earthern containment berm. Approximately 66 bbls of crude oil were recovered via vacuum truck. WPX reported the release to the NMOCD via email on November 6, 2016 and with a subsquent Form C-141 on November 17, 2016. The release was assigned Incident Number nAB1632647780.

nAB1712951426

On April 20, 2017, human error during equipment reconfiguration resulted in overpressurization of an aboveground poly line that released approximately 50 bbls of crude oil to the pasture north and west of the well pad location. Approximately 40 bbls of crude oil were recovered. WPX

reported the release to the NMOCD via email on April 21, 2017 and with a subsquent Form C-141 on May 2, 2017. The release was assigned Incident Number nAB1712951426.

nAB1728553778 and nAB1728551205

On September 21, 2017 and September 30, 2017 it was discovered that a poly line had failed between 75 and 100 feet south of the well pad and resulted in an unknown volume of produced water to be released and migrate an estimated 600 yards southwest in the pasture. No fluids were able to be recovered immediately due to heavy rainfall but volumes appeared to exceed the reportable limit. WPX reported the releases to the NMOCD via email and with subsquent Form C-141s on October 5, 2017. Incident Numbers nAB1728553778 and nAB1728551205, respectively were assigned.

nAPP2200728755

On January 4, 2022, the dump malfunctioned on a separator, causing the release of approximately 24 bbls of produced water and 20 bbls of crude oil into a earthen berm secondary containment and immediate pasture. No fluids were able to be recovered immediately but the release area on pad was excavated to approximately 0.5 foot below ground surface (bgs) to address surface staining. WPX reported the release to the NMOCD via email on January 4, 2022 and with a subsquent Form C-141 January 10, 2022. The release was assigned Incident Number nAPP2200728755.

1.2 Site Characterization

Ensolum characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on **Figure 1 in Appendix A.**

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based a soil boring (MW-1) that was drilled by Talon LPE on December 9, 2020, located approximately 0.40 miles southeast of the Site. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 106 feet bgs. No fluids were observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The well log is provided as **Appendix B.**

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release.

1.3 Project Objective

The primary objectives of Ensolum's scope of services were to document soil characterization and delineation actions performed at the Site were completed in accordance with the applicable NMOCD regulatory RWP guidelines and to document those concentrations of constituents of concern (COCs) present in soil remaining on-Site required to be addressed.

2.0 SOIL SAMPLING AND INITIAL REMEDIAL ACTIONS

WPX conducted initial remediation activities for Incident Number nAPP2200728755 by excavating impacted soil on pad for off-Site disposal. WSP conducted soil sampling activities to verify the presence or absence of soil impacts associated with the subject releases.

2.1 Delineation Activities

nAP1712951426 and nAPP2200728755

On January 25, 2022 and Febraury 28, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH17): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 3 foot bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2A in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil sampling logs **(Appendix C).** The soil samples were placed directly into a pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C), under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation during delineation activities is included in **Appendix D.**

nAB1728553778 and nAB1728551205

On March 3, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH10): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 2 feet bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2B in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil

sampling logs **(Appendix C).** The soil samples were handled, collected and analyzed as previously described. Photographic documentation during delineation activities is included in **Appendix D.**

3.0 SOIL SAMPLING RESULTS

nAP1712951426 and nAPP2200728755

Laboratory analytical results for delineation soil samples BH03, BH04, BH10, BH13, BH16 and BH17 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH01, BH02, BH05 through BH09, BH11, BH12, BH14 and BH15 indicated COCs were within the applicable Closure Criteria and/or reclamation standard requirement.

nAB1728553778 and nAB1728551205

Laboratory analytical results for delineation soil samples BH01 through BH03 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH04 through BH10 indicated COCs were within the applicable reclamation standard requirement.

Laboratory analytical results are summarized in the **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

4.0 DEFFERAL REQUEST

nAB1632647780

The Deferral Request for Incident Number NRM2034258716, authored by WSP, was approved by NMOCD on January 13, 2022 and overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the laboratory analytical data as it can be applicable for this release to provide vertical and lateral definition of the historical release. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

Based on the summary of the approved Deferral Request, the following findings and conclusions regarding the incident are presented:

- Based on laboratory analytical results of confirmation and delineation soil samples for Incident Number NRM2034258716, impacts associated with Incident Number nAB1632647780 were confirmed to have remained within the secondary containment, as documented on the Form C-141;
- Based on soil laboratory analytical results and extent of release area within the secondary earthen berm containment, an estimated **102 cubic yards** was approved to be deferred until the Plugging and Abandonment or recontruction of the Site, whichever comes first.

Based on the findings and conclusions of this approved Deferral Report and review and applicability to historical Incident Number nAB1632647780, No Further Action appears warranted at this time and the Site should be respectfully considered for Deferral by the NMOCD using the previously collected data.

5.0 REMEDIATION WORK PLAN

Based on the results documented in this report, the following findings and conclusions regarding the releases are presented:

- Areas within the top four feet of the pasture contain impacted soil exceeding the reclamation standard; however, impacts exceeding Closure Criteria within the area of concerns for nAB1728551205, nAB1728553778 and nAB1712951426 and release extent for nAPP220728755 do not appear to exceed 4 feet bgs;
- Based on existing soil analytical results and mapped extent of the release areas, an estimated **6,840 cubic yards** of impacted soil is anticipated to be remediated and/or removed from the Site for disposal in accordance with state and federal regulations. The current proposed excavation extent is depicted on **Figure 4 in Appendix A**;
- Based on laboratory analytical results for delineation samples from BH01, BH06, BH05, BH09, BH11 and BH12 (nAP1712951426 and nAPP2200728755), no remediation efforts are required in these areas. No areas on pad exceed the Closure Criteria for the Site.

Based on the conclusions presented above, the following remediation is proposed:

- Soil characterization and investigation is required to determine the lateral and vertical extent of impact associated with Incident Number NHMP1412241998. A proposed tract that aligns with details provided on the C-141 is provided on **Figure 3 in Appendix A.** Ensolum will conduct delineation activities to verify the presence or absence of soil impacts associated with this incident. Laboratory analytical results will be used to update additional cubic yards of soil to be remediated, if any;
- Horizontal delineation of all releases associated with nAB1728551205, nAB1728553778 and nAB1712951426 and nAPP220728755 will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts;
- Impacted soil will be excavated from the top four feet of the areas in the pasture containing soil exceeding the reclamation standard. Excavated soil will then be transferred to: (a) a New Mexico approved landfill facility for disposal and the excavation will be backfilled with Non-waste containing soil, as defined by “Procedures for Implementation of the Spill Rule” (September 6, 2019) or (b) an on-site ex-situ treatment cell for chloride extraction. Following review of the additional soil characterization at the Site, WPX will re-evaluate the proposed remedial options and submit a revised RWP detailing the option (b) treatment and sampling plan for NMOCD review, if selected.
- Surface scraping may be conducted to remove any minor surficial staining in areas that are delineated;

- Access for remediation or disturbance that occurs offsite requires BLM approval with additional coverage. WPX will prepare and submit documentation for proposed work areas before initiating corrective actions;

- There are areas off pad (ex. Right-of-Way) that will likely require third-party operator oversight and additional safety measures before or during remediation activities near their respective subsurface pipelines. WPX or the third party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a WPX or third-party operator safety representative.

- Subsequent to the completion of remediation and receipt of soil confirmation sample results documenting that impacted soil had been removed, the excavation will be backfilled with clean and/or treated soil and restored to “as close to its original state” as possible.

5.1 Proposed Sampling

WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 193 floor samples within the release extent, excluding sidewall samples. Due to the large extent of the impacted areas (38,500 square feet), Ensolum proposes increasing the confirmation sampling size to collecting a 5-point composite sample to represent each 1,000 square foot area for the floors and sidewalls of the excavation.

5.2 Proposed Schedule

WPX believes the scope of work described above will meet requirements set forth in NMAC 19.15.29.13 and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

Based on the extent of corrective measures, planning and potential third-party operator oversight at the Site, WPX anticipates beginning remediation by **January 2023.**

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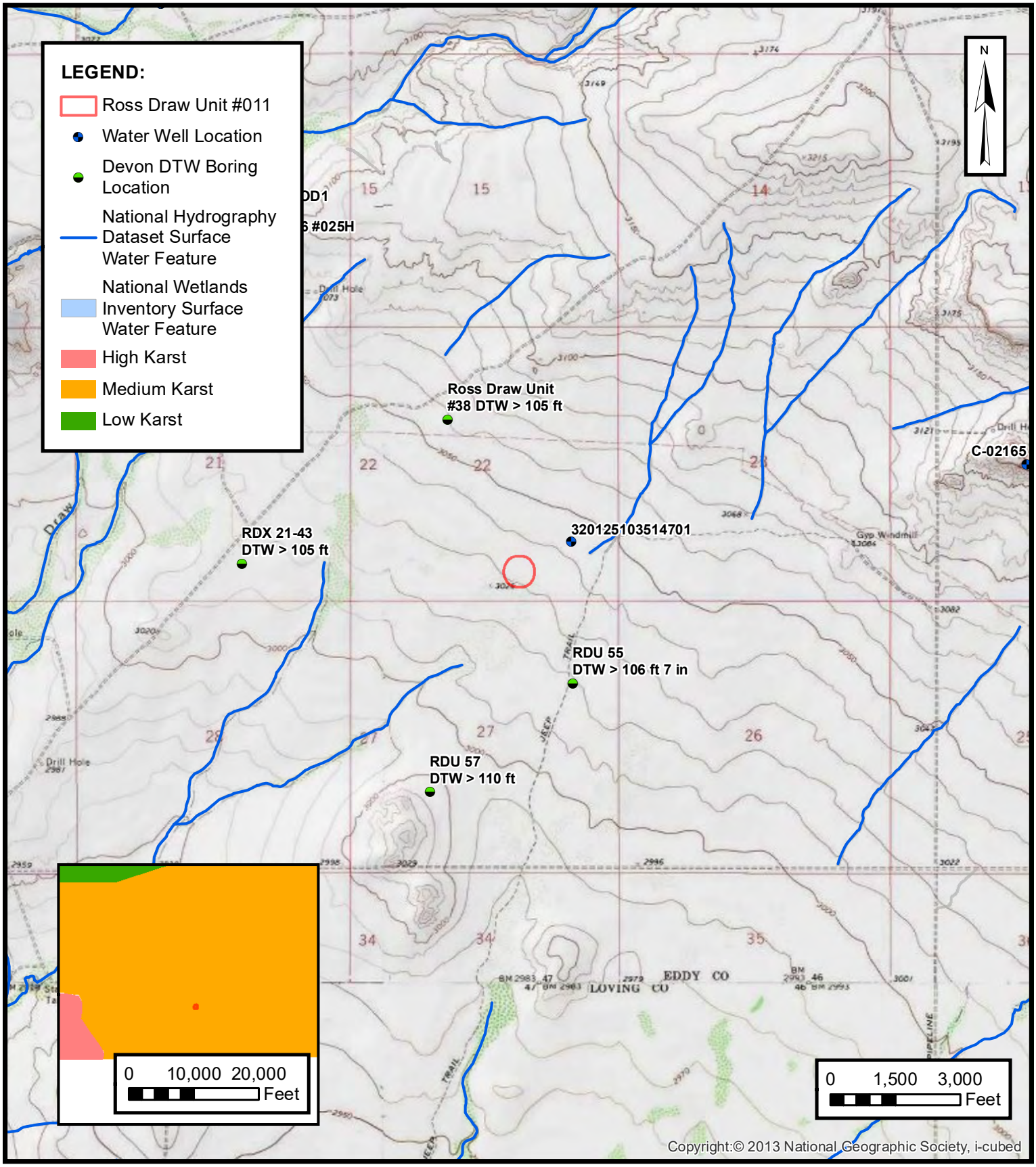
APPENDIX A

Figures



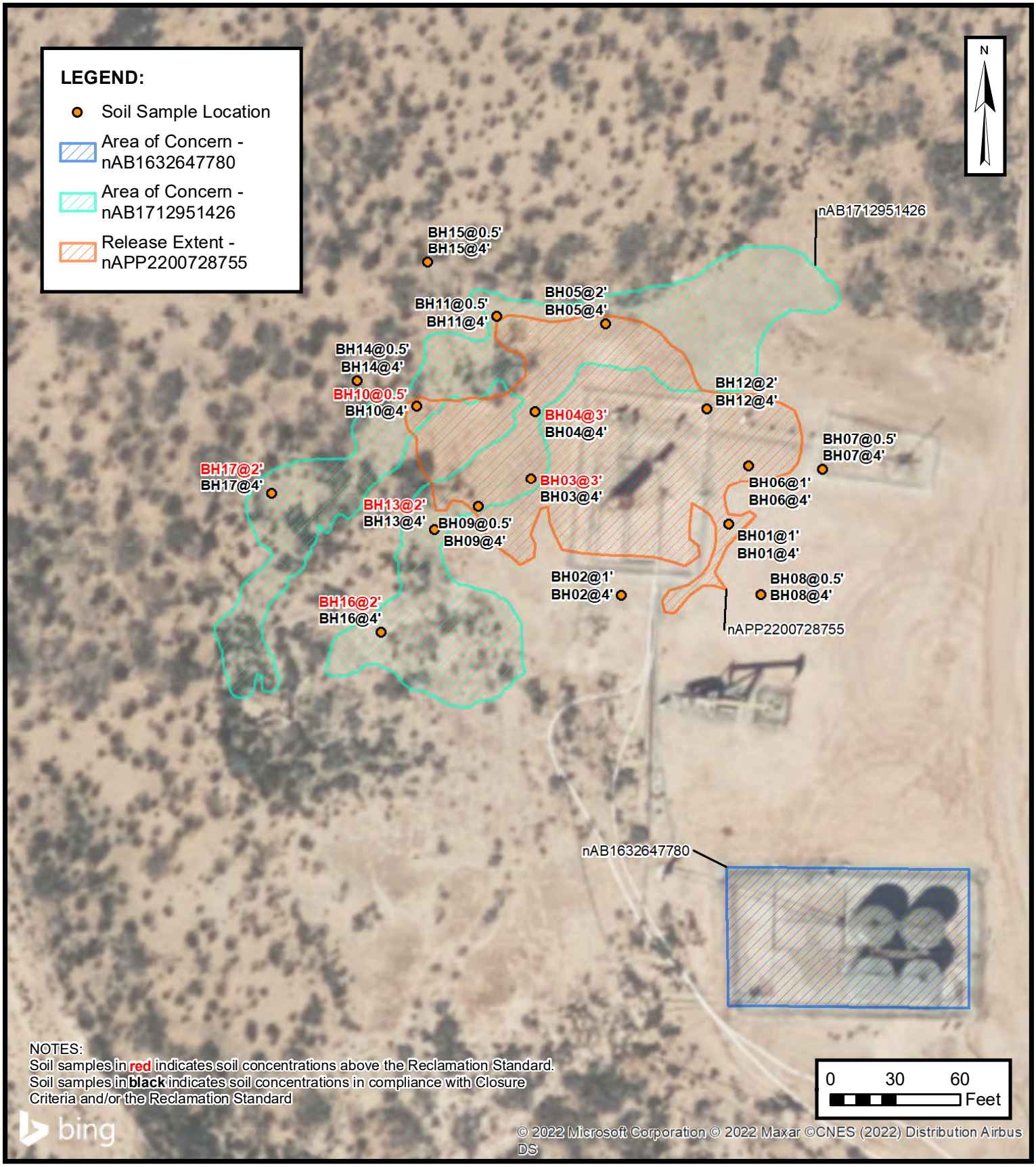
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
1



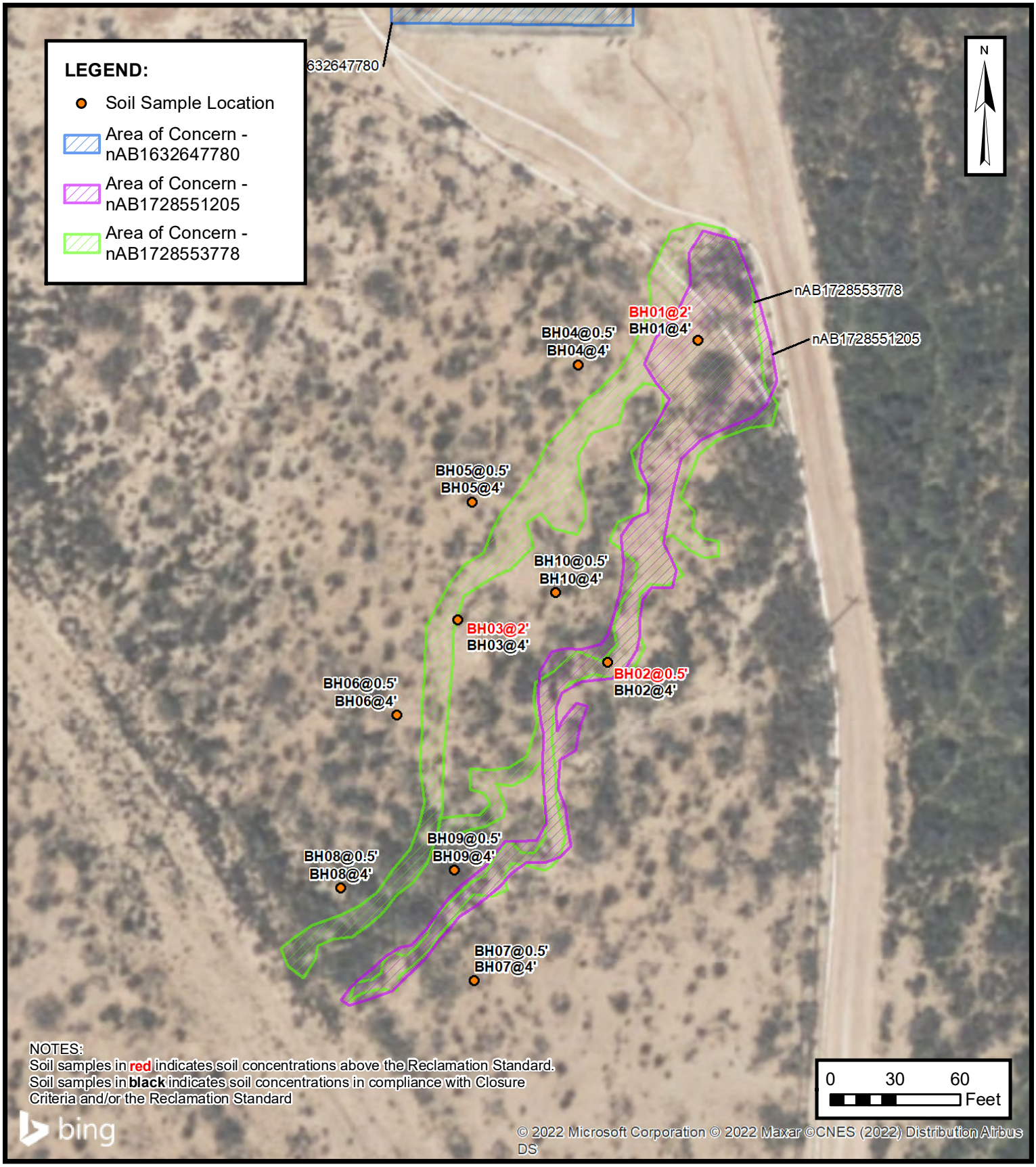
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATION MAP 2A

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2A



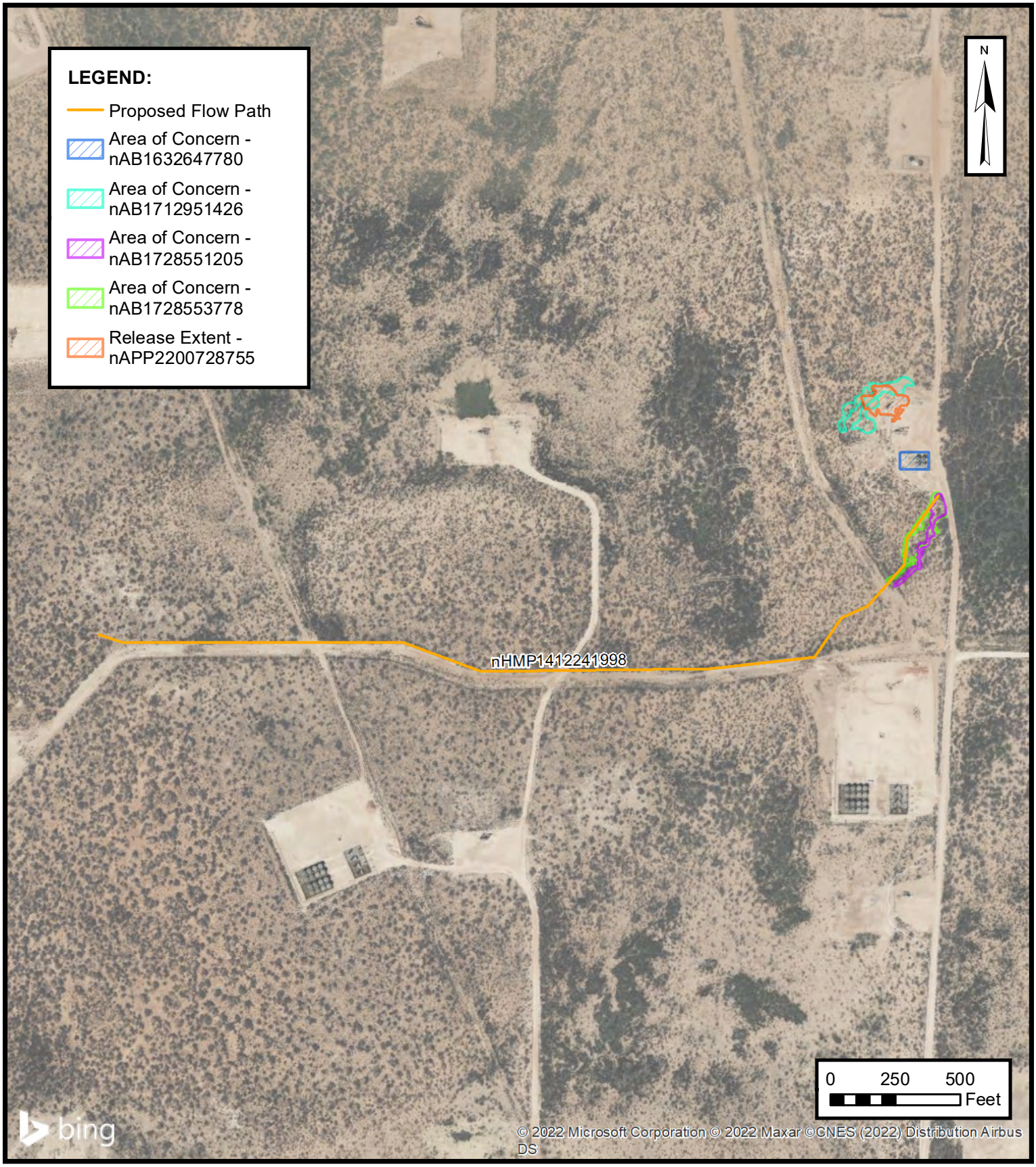
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATION MAP 2B

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2B



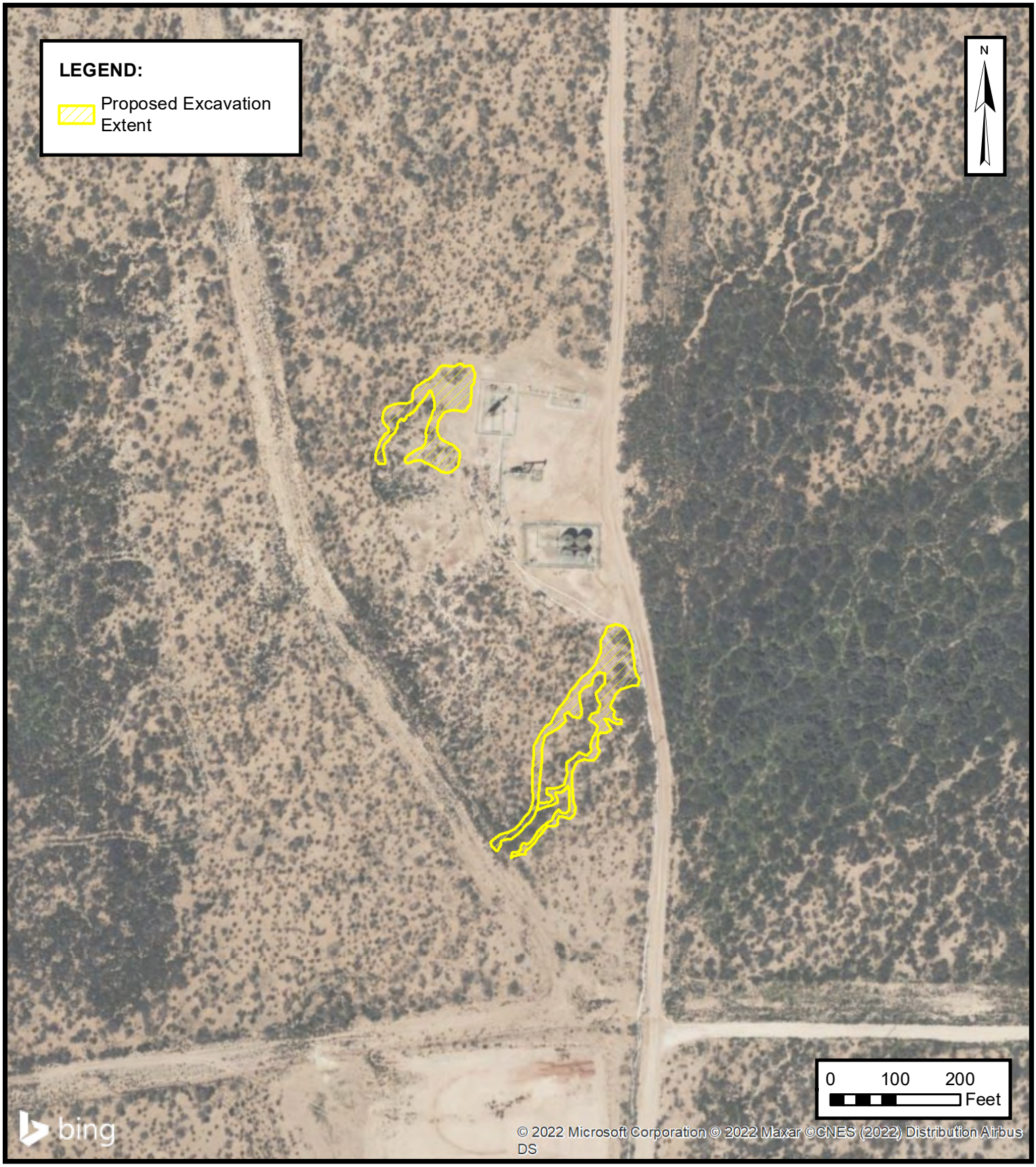
ENSOLUM
Environmental & Hydrogeologic Consultants

AREA OF CONCERN TRACT

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
3



ENSOLUM
Environmental & Hydrogeologic Consultants

PROPOSED EXCAVATION AREAS

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
4

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APPENDIX B

Well Record

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: BH01	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022700°, -103.866936°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, some staining, H-C odor.
M	1,260	1.6	Y	BH01	1	1		At 2', decrease in staing to slight staining, decrease in odor to slight H-C ofor.
								At 3', no staining, no odor.
M	816	0.9	Y		2	2		
M	1,020	0.2	N		3	3		
M	1,176	0.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH02	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022624°, -103.867072°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	<128	0.1	N	BH02	1	1		
M	<128	0.1	N		2	2		
M	<128	0	N		3	3		
M	<128	0.2	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022749°, -103.867186°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, slight odor.
								At 3', no odor.
M	<128	2.5	Y		1	1		
M	280	2.5	N		2	2		
M	1,544	1.1	N	BH03	3	3		
M	1,896	1.4	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH04	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022821°, -103.867181°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, slight staining, slight odor.
								At 2', no staining.
M	180	27.6	Y		1	1		At 3', color change to light brown, no odor.
								At 4' color change to dark brown.
M	1,260	9.9	N		2	2		
M	2,552	14.5	N	BH04	3	3		
M	1,772	20.2	N	BH04	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH05	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022915°, -103.867092°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor. At 2', color change to light brown.
M	152	0.1	N	BH05	1	1		
M	<128	0.1	N		2	2		
M	<128	0.1	N		3	3		
M	<128	0.1	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH06	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022763°, -103.866911°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	488	0.1	N	BH06	1	1		At 3', color change to light brown.
M	444	0	N		2	2		
M	444	0.9	N		3	3		
M	356	0.4	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH07	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 3 32.022759°, -103.866818°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	588	0.1	N	BH07	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	<128	0.7	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.2	N		2	2		
						3	CCHE	3-4',CALICHE, dry, light brown-brown, well graded, very fine-medium grain, no stain, no odor.
D	444	0.2	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022624°, -103.866896°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.1	N	BH08	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	152	0.1	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.1	N		2	2		
						3		
D	<128	0.1	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH09	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022719°, -103.867253°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.5	N	BH09	0.5	0	SP-SM	0-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	820	0.9	N		1	1		
D	1,360	0.8	N		2	2		
						3		At 3', color change to light brown-brown.
D	756	1.8	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH10	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022827°, -103.867331°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	280	0.5	N	BH10	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	0.9	N		1	1	SP-SM	1-3', SAND, dry, reddish brown-brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,224	0.8	N		2	2		
						3	SM	3-4', SILTY SAND, dry, tan-light brown, fine-medium grain, no stain, no odor.
D	11,016	1.8	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH11	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022923°, -103.867229°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<128	2.2	N	BH11	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	4.3	N		1	1		
D	120	2.3	N		2	2		
						3	CCHE	3-4', CALICHE, dry, tan, well graded, fine-medium grain, no stain, no odor.
D	2,188	4.3	N	BH11	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH12	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022824°, -103.866964°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,556	0.3	N		0.5	0	SW-SM	0-1', SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	1,780	0.4	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,200	0.9	N	BH12	2	2		
						3		
D	1,556	0.3	N	BH12	4	4	TD	Total depth at 4' bgs.

ENSOLUM

Sample Name: BH13	Date: 2-28-2022	
Site Name: Ross Draw Unit #011		
Incident Number: nAPP2200728755 & nAB1712951426		
Job Number: 03A1987006		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022694°, -103.867308°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	142	N/A	N		0.5	0	SP	0-2', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor. Note: PID not calibrating. Only screening for chlorides.
D	1,360	N/A	N		1	1		At 1', some silt.
D	2,840	N/A	N	BH13	2	2	SW-SM	2-3', SAND, dry, brown, well graded with silt, very fine- fine grain, no stain, no odor.
						3	CCHE	3-4', CALICHE, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	4,884	N/A	N	BH13	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH14	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022854°, -103.867406°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	360	N/A	N	BH14	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3		At 4', some silt.
D	120	N/A	N	BH14	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH15	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022981°, -103.867317°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N	BH15	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3	SW	3-4', SAND, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	<120	N/A	N	BH15	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH16	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022584°, -103.867375°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	1,360	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	1,556	N/A	N	BH16	2	2		
						3	SW-SM	3-4', SAND, dry, tan-light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	3,076	N/A	N	BH16	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH17	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022733°, -103.867514°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
								At 1', no organics.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	888	N/A	N	BH17	2	2		
						3	SW-SM	3-4', SAND, dry, light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	6,160	N/A	N	BH17	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH01	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021844°, -103.866550°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	6,160	1.5	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	6,160	1	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	6,664	0.8	N	BH01	2	2		
						3		
D	7,824	1.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH02	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021498°, -103.866665°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	3,076	0.4	N	BH02	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	1,664	0.4	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,452	0.5	N		2	2		
						3		
D	9,244	0.6	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021543°, -103.866854°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	0.4	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	252	0.3	N		1	1	SP-SM	1-2',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,556	0.3	N	BH03	2	2	SW-SM	2-4',SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
						3		
D	7,216	0.9	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH05	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021670°, -103.866836°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	2.6	N	BH05	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	4	N		1	1		
D	<120	3.6	N		2	2		
						3		
D	<120	4.3	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH06	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021442°, -103.866931°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	144	0.7	N	BH06	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	0.8	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	<120	2.9	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH07	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021156°, -103.866833°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.8	N	BH07	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.9	N		1	1		
D	<120	2.1	N		2	2		
						3		
D	120	2.3	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021256°, -103.867002°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.3	N	BH08	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.4	N		1	1		
D	<120	1.9	N		2	2		
						3		
D	<120	3.6	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH09	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021275°, -103.866859°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.1	N	BH09	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.5	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	168	1	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH10	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021573°, -103.866730°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.7	N	BH10	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	3.2	N		1	1		
D	<120	3.2	N		2	2		
						3		
D	<120	4.2	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

APPENDIX D

Photographic Log

ENSOLUM

Photographic Log

WPX Energy Permian, LLC.
Ross Draw Unit #011 - Project Location
Ensolum Job Number: 03A1987006

Photograph 1
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 2
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 3
Date: February 28, 2022
Description: View of the Site during delineation

Photograph 4
Date: March 3, 2022
Description: View of the Site during delineation activities

ENSOLUM

APPENDIX E

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Delineation Soil Sample Analytical Results										
Incident Number: nAB1712951426 and nAPP220728755										
BH01	1/25/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
BH01	1/25/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	1,320
BH02	1/25/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	15.7
BH02	1/25/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	11.2
BH03	1/25/2022	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**2,570***
BH03	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,420
BH04	1/25/2022	3	<0.00202	<0.00403	<49.9	68.8	<49.9	68.8	68.8	**3,320***
BH04	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,610
BH05	1/25/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	134
BH05	1/25/2022	4	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	35.6
BH06	1/25/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	601
BH06	1/25/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH07	2/18/2022	0.5	<0.00199	<0.00398	<50.0	81.7	<50.0	81.7	81.7	582
BH07	2/18/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	510
BH08	2/18/2022	0.5	<0.00200	<0.00399	<50.0	108	<50.0	108	108	492
BH08	2/18/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	12.9
BH09	2/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	365
BH09	2/18/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	347
BH10	2/18/2022	0.5	<0.00200	<0.00399	<250	**1,660**	<250	**1,660**	**1,660**	**906***
BH10	2/18/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	18,000
BH11	2/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	135
BH11	2/18/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	3,220
BH12	2/28/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,610
BH12	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,360
BH13	2/28/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,430***
BH13	2/28/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	7,260

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH14	2/28/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH14	2/28/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	115
BH15	2/28/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	77.5
BH15	2/28/2022	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	21.4
BH16	2/28/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	**1,940***
BH16	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,650
BH17	2/28/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	**1,090***
BH17	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,280
Incident Number: nAB1728551205 and nAB1728553778										
BH01	3/3/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	**8,700***
BH01	3/3/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9,220
BH02	3/3/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,300***
BH02	3/3/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,350
BH03	3/3/2022	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	**3,310***
BH03	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH04	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	45.3
BH04	3/3/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.1
BH05	3/3/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	5.80
BH05	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH06	3/3/2022	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
BH06	3/3/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.4
BH07	3/3/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5.01
BH07	3/3/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	130
BH08	3/3/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.90
BH08	3/3/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	57.1

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH09	3/3/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	10.4
BH09	3/3/2022	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	174
BH10	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	5.95
BH10	3/3/2022	4	<0.00199	<0.00398	<50.0	70.6	<50.0	70.6	70.6	34.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

*Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or reclamation requirement for Soils Impacted by a Release*

** - indicates top 4 feet in the pasture area impacted by the release, NMAC 19.15.29.13. D (1) that will be reclaimed following remediation.*

ENSOLUM

APPENDIX F

Laboratory Analytical Reports & Chain-of-Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1876-1
Laboratory Sample Delivery Group: Eddy
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
2/3/2022 12:01:30 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-1876-1
SDG: Eddy

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Job ID: 890-1876-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1876-1

Receipt
The samples were received on 1/26/2022 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH05 (890-1876-9), BH05 (890-1876-10), BH06 (890-1876-11), (890-1883-A-1-C MS) and (890-1883-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2570**		25.3		mg/Kg			02/01/22 18:58	5

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2420**	**F1**	24.8		mg/Kg			02/01/22 19:04	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**68.8**		49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**68.8**		49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3320**		25.0		mg/Kg			02/01/22 19:22	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04

Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		25.0		mg/Kg			02/01/22 19:38	5

Client Sample ID: BH05

Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08
Sample Depth: 2

Lab Sample ID: 890-1876-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.02		mg/Kg			02/01/22 19:56	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH05

Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.6**		4.98		mg/Kg			02/02/22 10:49	1

Client Sample ID: BH06

Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*
o-Terphenyl	*78*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**601**		5.03	mg/Kg			02/01/22 20:08	1

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06

Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		4.98		mg/Kg			02/01/22 20:14	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1876-1	BH01	111	100
890-1876-2	BH01	117	101
890-1876-3	BH02	123	103
890-1876-4	BH02	114	101
890-1876-5	BH03	108	75
890-1876-6	BH03	121	89
890-1876-7	BH04	116	82
890-1876-8	BH04	112	99
890-1876-9	BH05	130	100
890-1876-10	BH05	123	112
890-1876-11	BH06	115	104
890-1876-12	BH06	128	89
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1876-1	BH01	81	90
890-1876-2	BH01	81	92
890-1876-3	BH02	79	90
890-1876-4	BH02	77	86
890-1876-5	BH03	82	93
890-1876-6	BH03	76	84
890-1876-7	BH04	91	103
890-1876-8	BH04	72	86
890-1876-9	BH05	68 S1-	76
890-1876-10	BH05	66 S1-	76
890-1876-11	BH06	69 S1-	78
890-1876-12	BH06	77	86
890-1883-A-1-C MS	Matrix Spike	69 S1-	69 S1-
890-1883-A-1-D MSD	Matrix Spike Duplicate	69 S1-	70
LCS 880-18143/2-A	Lab Control Sample	90	96
LCSD 880-18143/3-A	Lab Control Sample Dup	89	93
MB 880-18143/1-A	Method Blank	82	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*

Lab Sample ID: LCS 880-17922/1-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07650		mg/Kg		76	70 - 130		
Toluene			0.100	0.07336		mg/Kg		73	70 - 130		
Ethylbenzene			0.100	0.07414		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1514		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07781		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-17922/2-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene			0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene			0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene			0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130		
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 890-1872-A-3-D MSD
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-18143/1-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18143

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	846.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1190		mg/Kg		119	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-18143/3-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.5		mg/Kg		93	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1204		mg/Kg		120	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1883-A-1-C MS
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	851.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	970.6		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-1883-A-1-D MSD
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	967.9		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	999.6		mg/Kg		98	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	70		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	231.6		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-18029/3-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	261.3		mg/Kg		105	90 - 110	12	20

Lab Sample ID: 890-1876-6 MS
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2420	F1	1240	3559		mg/Kg		92	90 - 110		

Lab Sample ID: 890-1876-6 MSD
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2420	F1	1240	3183	F1	mg/Kg		62	90 - 110	11	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	5035	
890-1876-2	BH01	Total/NA	Solid	5035	
890-1876-3	BH02	Total/NA	Solid	5035	
890-1876-4	BH02	Total/NA	Solid	5035	
890-1876-5	BH03	Total/NA	Solid	5035	
890-1876-6	BH03	Total/NA	Solid	5035	
890-1876-7	BH04	Total/NA	Solid	5035	
890-1876-8	BH04	Total/NA	Solid	5035	
890-1876-9	BH05	Total/NA	Solid	5035	
890-1876-10	BH05	Total/NA	Solid	5035	
890-1876-11	BH06	Total/NA	Solid	5035	
890-1876-12	BH06	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8021B	17922
890-1876-2	BH01	Total/NA	Solid	8021B	17922
890-1876-3	BH02	Total/NA	Solid	8021B	17922
890-1876-4	BH02	Total/NA	Solid	8021B	17922
890-1876-5	BH03	Total/NA	Solid	8021B	17922
890-1876-6	BH03	Total/NA	Solid	8021B	17922
890-1876-7	BH04	Total/NA	Solid	8021B	17922
890-1876-8	BH04	Total/NA	Solid	8021B	17922
890-1876-9	BH05	Total/NA	Solid	8021B	17922
890-1876-10	BH05	Total/NA	Solid	8021B	17922
890-1876-11	BH06	Total/NA	Solid	8021B	17922
890-1876-12	BH06	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	Total BTEX	
890-1876-2	BH01	Total/NA	Solid	Total BTEX	
890-1876-3	BH02	Total/NA	Solid	Total BTEX	
890-1876-4	BH02	Total/NA	Solid	Total BTEX	
890-1876-5	BH03	Total/NA	Solid	Total BTEX	
890-1876-6	BH03	Total/NA	Solid	Total BTEX	
890-1876-7	BH04	Total/NA	Solid	Total BTEX	
890-1876-8	BH04	Total/NA	Solid	Total BTEX	
890-1876-9	BH05	Total/NA	Solid	Total BTEX	
890-1876-10	BH05	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA

Prep Batch: 18143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015NM Prep	
890-1876-2	BH01	Total/NA	Solid	8015NM Prep	
890-1876-3	BH02	Total/NA	Solid	8015NM Prep	
890-1876-4	BH02	Total/NA	Solid	8015NM Prep	
890-1876-5	BH03	Total/NA	Solid	8015NM Prep	
890-1876-6	BH03	Total/NA	Solid	8015NM Prep	
890-1876-7	BH04	Total/NA	Solid	8015NM Prep	
890-1876-8	BH04	Total/NA	Solid	8015NM Prep	
890-1876-9	BH05	Total/NA	Solid	8015NM Prep	
890-1876-10	BH05	Total/NA	Solid	8015NM Prep	
890-1876-11	BH06	Total/NA	Solid	8015NM Prep	
890-1876-12	BH06	Total/NA	Solid	8015NM Prep	
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015 NM	
890-1876-2	BH01	Total/NA	Solid	8015 NM	
890-1876-3	BH02	Total/NA	Solid	8015 NM	
890-1876-4	BH02	Total/NA	Solid	8015 NM	
890-1876-5	BH03	Total/NA	Solid	8015 NM	
890-1876-6	BH03	Total/NA	Solid	8015 NM	
890-1876-7	BH04	Total/NA	Solid	8015 NM	
890-1876-8	BH04	Total/NA	Solid	8015 NM	
890-1876-9	BH05	Total/NA	Solid	8015 NM	
890-1876-10	BH05	Total/NA	Solid	8015 NM	
890-1876-11	BH06	Total/NA	Solid	8015 NM	
890-1876-12	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 18225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015B NM	18143
890-1876-2	BH01	Total/NA	Solid	8015B NM	18143
890-1876-3	BH02	Total/NA	Solid	8015B NM	18143
890-1876-4	BH02	Total/NA	Solid	8015B NM	18143
890-1876-5	BH03	Total/NA	Solid	8015B NM	18143
890-1876-6	BH03	Total/NA	Solid	8015B NM	18143
890-1876-7	BH04	Total/NA	Solid	8015B NM	18143
890-1876-8	BH04	Total/NA	Solid	8015B NM	18143
890-1876-9	BH05	Total/NA	Solid	8015B NM	18143
890-1876-10	BH05	Total/NA	Solid	8015B NM	18143
890-1876-11	BH06	Total/NA	Solid	8015B NM	18143
890-1876-12	BH06	Total/NA	Solid	8015B NM	18143
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015B NM	18143
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18143
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18143
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18143

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 18225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18143

HPLC/IC

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	DI Leach	
890-1876-6	BH03	Soluble	Solid	DI Leach	
890-1876-7	BH04	Soluble	Solid	DI Leach	
890-1876-8	BH04	Soluble	Solid	DI Leach	
890-1876-9	BH05	Soluble	Solid	DI Leach	
890-1876-10	BH05	Soluble	Solid	DI Leach	
890-1876-11	BH06	Soluble	Solid	DI Leach	
890-1876-12	BH06	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1876-6 MS	BH03	Soluble	Solid	DI Leach	
890-1876-6 MSD	BH03	Soluble	Solid	DI Leach	

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	300.0	18029
890-1876-6	BH03	Soluble	Solid	300.0	18029
890-1876-7	BH04	Soluble	Solid	300.0	18029
890-1876-8	BH04	Soluble	Solid	300.0	18029
890-1876-9	BH05	Soluble	Solid	300.0	18029
890-1876-10	BH05	Soluble	Solid	300.0	18029
890-1876-11	BH06	Soluble	Solid	300.0	18029
890-1876-12	BH06	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1876-6 MS	BH03	Soluble	Solid	300.0	18029
890-1876-6 MSD	BH03	Soluble	Solid	300.0	18029

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:34	AJ	XEN MID

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:56	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:18	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:40	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 18:58	CH	XEN MID

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:04	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:22	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:38	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 19:56	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/02/22 10:49	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:55	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:35	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:08	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 19:16	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:14	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1876-1	BH01	Solid	01/25/22 09:10	01/26/22 16:08	1
890-1876-2	BH01	Solid	01/25/22 09:24	01/26/22 16:08	4
890-1876-3	BH02	Solid	01/25/22 09:32	01/26/22 16:08	1
890-1876-4	BH02	Solid	01/25/22 09:50	01/26/22 16:08	4
890-1876-5	BH03	Solid	01/25/22 10:08	01/26/22 16:08	3
890-1876-6	BH03	Solid	01/25/22 10:14	01/26/22 16:08	4
890-1876-7	BH04	Solid	01/25/22 10:34	01/26/22 16:08	3
890-1876-8	BH04	Solid	01/25/22 10:40	01/26/22 16:08	4
890-1876-9	BH05	Solid	01/25/22 13:20	01/26/22 16:08	2
890-1876-10	BH05	Solid	01/25/22 13:25	01/26/22 16:08	4
890-1876-11	BH06	Solid	01/25/22 14:10	01/26/22 16:08	1
890-1876-12	BH06	Solid	01/25/22 14:28	01/26/22 16:08	4

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland TX 79705	City, State ZIP:	→
Phone:	251-702-2329	Email:	Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	EDDY	Due Date:	
Sampler's Name:	Merv Roach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T-NM001	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2	1.0
Total Containers:		Corrected Temperature:	1.0	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (300.0)	Sample Comments
BH01	S	11/25/2022	0910	1'	Grab			X	X	X	
BH01	C	11/25/2022	0924	4'				X	X	X	
BH02	S	11/25/2022	0932	1'				X	X	X	
BH02	S	11/25/2022	0950	4'				X	X	X	
BH03	S	11/25/2022	1005	3'				X	X	X	
BH03	C	11/25/2022	1014	4'				X	X	X	
BH04	S	11/25/2022	1034	3'				X	X	X	
BH04	S	11/25/2022	1045	4'				X	X	X	
BH05	S	11/25/2022	1320	1'				X	X	X	
BH05	S	11/25/2022	1325	4'				X	X	X	

890-1876 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Mugu		11/26/22 4:08	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland Tx 79705	City, State ZIP:	→
Phone:	281-702-2329	Email:	Anna-Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	Eddy	Due Date:	
Sampler's Name:	Macy Roach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	Slight Frost
Total Containers:		Corrected Temperature:	Page

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (EPA 300.0)	Sample Comments
BH06	S	1/25/2022	1410	1'	Grab			X	X	X	
BH06	S	1/25/2022	1428	4'	↓			X	X	X	

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Macy	N. Clark	1/26/22 4:09	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/28/22 12:32 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2003-1
Laboratory Sample Delivery Group: 31403360.03
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/3/2022 3:57:39 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2003-1
SDG: 31403360.03

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Job ID: 890-2003-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2003-1

Receipt
The samples were received on 2/23/2022 11:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-2009-A-3-I), (890-2009-A-3-G MS) and (890-2009-A-3-H MSD) at 25.0, 25.0 and 25.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20605 and analytical batch 880-20710 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH10 (890-2003-7), (LCS 880-20253/2-A) and (880-11670-A-1-D MS). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Lab Sample ID: 890-2003-1
Matrix: Solid
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.7**		50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
Diesel Range Organics (Over C10-C28)	**81.7**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**582**		24.9		mg/Kg			02/27/22 14:24	5

Client Sample ID: BH07

Lab Sample ID: 890-2003-2
Matrix: Solid
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**510**		5.00	mg/Kg			02/27/22 14:33	1

Client Sample ID: BH08

Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**108**		50.0	mg/Kg			02/25/22 15:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-3
Matrix: Solid
Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Diesel Range Organics (Over C10-C28)	**108**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**492**		25.1		mg/Kg			02/27/22 14:42	5

Client Sample ID: BH08

Lab Sample ID: 890-2003-4
Matrix: Solid
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-4
Matrix: Solid
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		4.98		mg/Kg			02/27/22 14:51	1

Client Sample ID: BH09

Lab Sample ID: 890-2003-5
Matrix: Solid
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		5.05		mg/Kg			02/27/22 14:59	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH09

Lab Sample ID: 890-2003-6
Matrix: Solid
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**347**		5.00		mg/Kg			02/27/22 15:26	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1660**		250	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Diesel Range Organics (Over C10-C28)	**1660**		250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
OII Range Organics (Over C28-C36)	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*
o-Terphenyl	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**906**		4.99	mg/Kg			02/27/22 15:35	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18000**		253		mg/Kg			02/27/22 16:01	50

Client Sample ID: BH11

Lab Sample ID: 890-2003-9
Matrix: Solid
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH11

Lab Sample ID: 890-2003-9
Matrix: Solid
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		4.95		mg/Kg			02/27/22 16:10	1

Client Sample ID: BH11

Lab Sample ID: 890-2003-10
Matrix: Solid
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*
o-Terphenyl	*116*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3220		25.3		mg/Kg			02/27/22 16:19	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11907-A-1-B MS	Matrix Spike	98	106
880-11907-A-1-C MSD	Matrix Spike Duplicate	94	98
890-2003-1	BH07	88	91
890-2003-2	BH07	78	94
890-2003-3	BH08	88	95
890-2003-4	BH08	59 S1-	92
890-2003-5	BH09	111	97
890-2003-6	BH09	104	93
890-2003-7	BH10	105	102
890-2003-8	BH10	105	101
890-2003-9	BH11	100	90
890-2003-10	BH11	105	103
890-2009-A-3-G MS	Matrix Spike	72	73
890-2009-A-3-H MSD	Matrix Spike Duplicate	122	75
CB MB	Method Blank	51 S1-	99
LCS 880-20526/1-A	Lab Control Sample	98	101
LCS 880-20605/1-A	Lab Control Sample	101	124
LCSD 880-20526/2-A	Lab Control Sample Dup	101	103
LCSD 880-20605/2-A	Lab Control Sample Dup	97	102
MB 880-20526/5-A	Method Blank	97	98
MB 880-20605/5-A	Method Blank	49 S1-	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11670-A-1-D MS	Matrix Spike	69 S1-	73
880-11670-A-1-E MSD	Matrix Spike Duplicate	82	77
890-2003-1	BH07	88	86
890-2003-2	BH07	96	98
890-2003-3	BH08	76	74
890-2003-4	BH08	98	100
890-2003-5	BH09	81	83
890-2003-6	BH09	83	85
890-2003-7	BH10	54 S1-	81
890-2003-8	BH10	84	89
890-2003-9	BH11	89	85
890-2003-10	BH11	113	116
890-2004-A-1-E MS	Matrix Spike	94	81
890-2004-A-1-F MSD	Matrix Spike Duplicate	92	80
LCS 880-20293/2-A	Lab Control Sample	80	81
LCSD 880-20293/3-A	Lab Control Sample Dup	103	104
MB 880-20293/1-A	Method Blank	105	115

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-20253/2-A	Lab Control Sample	132 S1+	136 S1+
LCSD 880-20253/3-A	Lab Control Sample Dup	113	128
MB 880-20253/1-A	Method Blank	97	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20526/5-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20526

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*

Lab Sample ID: LCS 880-20526/1-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09731		mg/Kg		97	70 - 130		
Toluene			0.100	0.09402		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09440		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2156		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1049		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-20526/2-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1030		mg/Kg		103	70 - 130	6	35
Toluene			0.100	0.09946		mg/Kg		99	70 - 130	6	35
Ethylbenzene			0.100	0.1007		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2324		mg/Kg		116	70 - 130	7	35
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.0498	U F1	0.101	0.8104	F1	mg/Kg		804	70 - 130		
Toluene	<0.0498	U F1 F2	0.101	1.626	F1	mg/Kg		1613	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.0498	U F1 F2	0.101	2.379	F1	mg/Kg		2360	70 - 130
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.202	9.133	F1	mg/Kg		4530	70 - 130
o-Xylene	<0.0498	U F1 F2	0.101	4.163	F1	mg/Kg		4130	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*

Lab Sample ID: 890-2009-A-3-H MSD
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0498	U F1	0.0996	0.9509	F1	mg/Kg		955	70 - 130	16	35
Toluene	<0.0498	U F1 F2	0.0996	2.505	F1 F2	mg/Kg		2515	70 - 130	43	35
Ethylbenzene	<0.0498	U F1 F2	0.0996	3.505	F1 F2	mg/Kg		3519	70 - 130	38	35
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.199	15.01	F1 F2	mg/Kg		7534	70 - 130	49	35
o-Xylene	<0.0498	U F1 F2	0.0996	7.358	F1 F2	mg/Kg		7387	70 - 130	55	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: MB 880-20605/5-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20605

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*49*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1224		mg/Kg		122	70 - 130
Toluene			0.100	0.1044		mg/Kg		104	70 - 130
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene			0.200	0.2201		mg/Kg		110	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.1072		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-20605/2-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1058		mg/Kg		106	70 - 130	15	35
Toluene			0.100	0.09560		mg/Kg		96	70 - 130	9	35
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2080		mg/Kg		104	70 - 130	6	35
o-Xylene			0.100	0.09996		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-11907-A-1-B MS
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.101	0.07733		mg/Kg		77	70 - 130		
Toluene	<0.00200	U F1	0.101	0.06553	F1	mg/Kg		65	70 - 130		
Ethylbenzene	<0.00200	U F1	0.101	0.06954	F1	mg/Kg		69	70 - 130		
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1418		mg/Kg		70	70 - 130		
o-Xylene	<0.00200	U	0.101	0.07034		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07748		mg/Kg		77	70 - 130	0	35
Toluene	<0.00200	U F1	0.100	0.06554	F1	mg/Kg		65	70 - 130	0	35
Ethylbenzene	<0.00200	U F1	0.100	0.07098		mg/Kg		71	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1454		mg/Kg		72	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.07552		mg/Kg		75	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: CB MB
Matrix: Solid
Analysis Batch: 20710

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*		*03/02/22 17:14*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*03/02/22 17:14*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20253/1-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20253

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*

Lab Sample ID: LCS 880-20253/2-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	808.4		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1182		mg/Kg		118	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*132*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCSD 880-20253/3-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	876.2		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Lab Sample ID: 880-11670-A-1-D MS
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1187		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		112	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 880-11670-A-1-E MSD
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1007		mg/Kg		97	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1187		mg/Kg		119	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/25/22 08:25	02/25/22 12:36	1
o-Terphenyl	115		70 - 130	02/25/22 08:25	02/25/22 12:36	1

Lab Sample ID: LCS 880-20293/2-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	797.2		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	928.5		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: LCSD 880-20293/3-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	821.5		mg/Kg		82	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-2004-A-1-E MS
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1240		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1269		mg/Kg		127	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2004-A-1-F MSD
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1205		mg/Kg		121	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1237		mg/Kg		124	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20217/1-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/27/22 12:29	1

Lab Sample ID: LCS 880-20217/2-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.6		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-20217/3-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	252.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-2003-5 MS
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	365		253	614.6		mg/Kg		99	90 - 110		

Lab Sample ID: 890-2003-5 MSD
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	365		253	611.6		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	Total BTEX	
890-2003-2	BH07	Total/NA	Solid	Total BTEX	
890-2003-3	BH08	Total/NA	Solid	Total BTEX	
890-2003-4	BH08	Total/NA	Solid	Total BTEX	
890-2003-5	BH09	Total/NA	Solid	Total BTEX	
890-2003-6	BH09	Total/NA	Solid	Total BTEX	
890-2003-7	BH10	Total/NA	Solid	Total BTEX	
890-2003-8	BH10	Total/NA	Solid	Total BTEX	
890-2003-9	BH11	Total/NA	Solid	Total BTEX	
890-2003-10	BH11	Total/NA	Solid	Total BTEX	

Prep Batch: 20526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	5035	
890-2003-6	BH09	Total/NA	Solid	5035	
890-2003-7	BH10	Total/NA	Solid	5035	
890-2003-8	BH10	Total/NA	Solid	5035	
890-2003-9	BH11	Total/NA	Solid	5035	
890-2003-10	BH11	Total/NA	Solid	5035	
MB 880-20526/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	8021B	20526
890-2003-6	BH09	Total/NA	Solid	8021B	20526
890-2003-7	BH10	Total/NA	Solid	8021B	20526
890-2003-8	BH10	Total/NA	Solid	8021B	20526
890-2003-9	BH11	Total/NA	Solid	8021B	20526
890-2003-10	BH11	Total/NA	Solid	8021B	20526
MB 880-20526/5-A	Method Blank	Total/NA	Solid	8021B	20526
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	8021B	20526
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20526
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	8021B	20526
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20526

Prep Batch: 20605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	5035	
890-2003-2	BH07	Total/NA	Solid	5035	
890-2003-3	BH08	Total/NA	Solid	5035	
890-2003-4	BH08	Total/NA	Solid	5035	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8021B	20605
890-2003-2	BH07	Total/NA	Solid	8021B	20605
890-2003-3	BH08	Total/NA	Solid	8021B	20605
890-2003-4	BH08	Total/NA	Solid	8021B	20605
CB MB	Method Blank	Total/NA	Solid	8021B	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	8021B	20605
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	8021B	20605
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20605
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20605
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20605

GC Semi VOA

Analysis Batch: 20195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015B NM	20253
890-2003-2	BH07	Total/NA	Solid	8015B NM	20253
890-2003-3	BH08	Total/NA	Solid	8015B NM	20253
890-2003-4	BH08	Total/NA	Solid	8015B NM	20253
890-2003-5	BH09	Total/NA	Solid	8015B NM	20253
890-2003-6	BH09	Total/NA	Solid	8015B NM	20253
890-2003-7	BH10	Total/NA	Solid	8015B NM	20253
890-2003-8	BH10	Total/NA	Solid	8015B NM	20253
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015B NM	20253
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20253
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20253
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	20253
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20253

Prep Batch: 20253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015NM Prep	
890-2003-2	BH07	Total/NA	Solid	8015NM Prep	
890-2003-3	BH08	Total/NA	Solid	8015NM Prep	
890-2003-4	BH08	Total/NA	Solid	8015NM Prep	
890-2003-5	BH09	Total/NA	Solid	8015NM Prep	
890-2003-6	BH09	Total/NA	Solid	8015NM Prep	
890-2003-7	BH10	Total/NA	Solid	8015NM Prep	
890-2003-8	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 20293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015NM Prep	
890-2003-10	BH11	Total/NA	Solid	8015NM Prep	
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC Semi VOA (Continued)

Prep Batch: 20293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015B NM	20293
890-2003-10	BH11	Total/NA	Solid	8015B NM	20293
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015B NM	20293
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20293
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20293
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	20293
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20293

Analysis Batch: 20341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015 NM	
890-2003-2	BH07	Total/NA	Solid	8015 NM	
890-2003-3	BH08	Total/NA	Solid	8015 NM	
890-2003-4	BH08	Total/NA	Solid	8015 NM	
890-2003-5	BH09	Total/NA	Solid	8015 NM	
890-2003-6	BH09	Total/NA	Solid	8015 NM	
890-2003-7	BH10	Total/NA	Solid	8015 NM	
890-2003-8	BH10	Total/NA	Solid	8015 NM	
890-2003-9	BH11	Total/NA	Solid	8015 NM	
890-2003-10	BH11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	DI Leach	
890-2003-2	BH07	Soluble	Solid	DI Leach	
890-2003-3	BH08	Soluble	Solid	DI Leach	
890-2003-4	BH08	Soluble	Solid	DI Leach	
890-2003-5	BH09	Soluble	Solid	DI Leach	
890-2003-6	BH09	Soluble	Solid	DI Leach	
890-2003-7	BH10	Soluble	Solid	DI Leach	
890-2003-8	BH10	Soluble	Solid	DI Leach	
890-2003-9	BH11	Soluble	Solid	DI Leach	
890-2003-10	BH11	Soluble	Solid	DI Leach	
MB 880-20217/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2003-5 MS	BH09	Soluble	Solid	DI Leach	
890-2003-5 MSD	BH09	Soluble	Solid	DI Leach	

Analysis Batch: 20409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	300.0	20217
890-2003-2	BH07	Soluble	Solid	300.0	20217

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

HPLC/IC (Continued)

Analysis Batch: 20409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-3	BH08	Soluble	Solid	300.0	20217
890-2003-4	BH08	Soluble	Solid	300.0	20217
890-2003-5	BH09	Soluble	Solid	300.0	20217
890-2003-6	BH09	Soluble	Solid	300.0	20217
890-2003-7	BH10	Soluble	Solid	300.0	20217
890-2003-8	BH10	Soluble	Solid	300.0	20217
890-2003-9	BH11	Soluble	Solid	300.0	20217
890-2003-10	BH11	Soluble	Solid	300.0	20217
MB 880-20217/1-A	Method Blank	Soluble	Solid	300.0	20217
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	300.0	20217
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20217
890-2003-5 MS	BH09	Soluble	Solid	300.0	20217
890-2003-5 MSD	BH09	Soluble	Solid	300.0	20217

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:24	CH	XEN MID

Client Sample ID: BH07
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:42	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:51	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:59	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:26	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		5			20195	02/25/22 05:38	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:35	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		50			20409	02/27/22 16:01	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 16:10	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 16:19	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2003-1	BH07	Solid	02/18/22 10:45	02/23/22 11:26	0.5
890-2003-2	BH07	Solid	02/18/22 10:55	02/23/22 11:26	4
890-2003-3	BH08	Solid	02/18/22 11:00	02/23/22 11:26	0.5
890-2003-4	BH08	Solid	02/18/22 11:10	02/23/22 11:26	4
890-2003-5	BH09	Solid	02/18/22 12:30	02/23/22 11:26	0.5
890-2003-6	BH09	Solid	02/18/22 12:45	02/23/22 11:26	4
890-2003-7	BH10	Solid	02/18/22 13:05	02/23/22 11:26	0.5
890-2003-8	BH10	Solid	02/18/22 13:20	02/23/22 11:26	4
890-2003-9	BH11	Solid	02/18/22 13:30	02/23/22 11:26	0.5
890-2003-10	BH11	Solid	02/18/22 13:45	02/23/22 11:26	4

Chain of Custody

Work Order No: _____

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Joseph Hernandez	Bill to: (if different)	Joseph Hernandez
Company Name:	WSP USA	Company Name:	WSP
Address:	3300 N A Street	Address:	3300 N A Street
City, State ZIP:	Midland, TX, 79705	City, State ZIP:	Midland, TX, 79705
Phone:	281-702-2329	Email:	Address: Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.03	Routine	✓
P.O. Number:	Napp2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.8/1.6	Thermometer ID	TUM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

CC:1137631001
API:PA.2021.04159.EXP.01

890-2003 Chain of Custody

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH07	S	02/18/22	10:45	0.5'	1	X	X	X	Discrete
BH07	S	02/18/22	10:55	4'	1	X	X	X	Discrete
BH08	S	02/18/22	11:00	0.5'	1	X	X	X	Discrete
BH08	S	02/18/22	11:10	4'	1	X	X	X	Discrete
BH09	S	02/18/22	12:30	0.5'	1	X	X	X	Discrete
BH09	S	02/18/22	12:45	4'	1	X	X	X	Discrete
BH10	S	02/18/22	13:05	0.5'	1	X	X	X	Discrete
BH10	S	02/18/22	13:20	4'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:30	0.5'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:45	4'	1	X	X	X	Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	2				
3	4				
5	6				

Revised Date 051418 Rev. 2018.1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-639 1
Client Contact: Shipping/Receiving	Phone.	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/1/2022	**Analysis Requested**		**Preservation Codes.**
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			Other:

Preservation Codes:
A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I - Ice, J DI Water, K - EDTA, L EDA
M - Hexane, N - None, O - AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, Z other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
BH07 (890-2003-1)	2/18/22	10 45 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2003-2)	2/18/22	10 55 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-3)	2/18/22	11 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-4)	2/18/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-5)	2/18/22	12 30 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-6)	2/18/22	12 45 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-7)	2/18/22	13 05 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-8)	2/18/22	13 20 Mountain		Solid			X	X	X	X	X	1	
BH11 (890-2003-9)	2/18/22	13 30 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Cine Cafp 2-23-22	Date/Time:	Company	Received by: [signature]	Date/Time: 2/24/22	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver 06/08/2021

Eurofins Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-639 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 3/1/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
BH11 (890-2003-10)	2/18/22	13 45 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes
A - HCL
B NaOH
C - Zn Acetate
D Nitric Acid
E - NaHSO4
F MeOH
G - Amchlor
H Ascorbic Acid
I - Ice
J DI Water
K - EDTA
L EDA
M Hexane
N - None
O AsNaO2
P - Na2O4S
Q Na2SO3
R Na2S2O3
S H2SO4
T TSP Dodecahydrate
U - Acetone
V MCAA
W pH 4-5
Z other (specify)
Other:

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested I II III, IV, Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date	Time.		Method of Shipment:	
Relinquished by: Cue Cufp 2.23.22	Date/Time:	Company	Received by: [signature]		Date/Time: 2/24/22	Company
Relinquished by:	Date/Time.	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact. Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks			

Ver 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/24/22 12:49 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2030-1
Laboratory Sample Delivery Group: 31403360.031
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/7/2022 9:27:48 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2030-1
SDG: 31403360.031

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Job ID: 890-2030-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2030-1

Receipt
The samples were received on 3/1/2022 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Lab Sample ID: 890-2030-1
Matrix: Solid
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1610**		25.0		mg/Kg			03/05/22 15:30	5

Client Sample ID: BH12

Lab Sample ID: 890-2030-2
Matrix: Solid
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*9*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1360**		25.0		mg/Kg			03/05/22 16:06	5

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4430**		49.7		mg/Kg			03/05/22 16:18	10

Client Sample ID: BH13

Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*8*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Lab Sample ID: 890-2030-4
Matrix: Solid
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7260		49.8		mg/Kg			03/05/22 16:30	10

Client Sample ID: BH14

Lab Sample ID: 890-2030-5
Matrix: Solid
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.00		mg/Kg			03/05/22 16:41	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH14

Lab Sample ID: 890-2030-6
Matrix: Solid
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**115**		4.99		mg/Kg			03/05/22 16:53	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*170*	*S1+*	*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.5**		5.00		mg/Kg			03/05/22 17:05	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-8
Matrix: Solid
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-8
Matrix: Solid
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.4**		4.98		mg/Kg			03/05/22 17:41	1

Client Sample ID: BH16

Lab Sample ID: 890-2030-9
Matrix: Solid
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*
o-Terphenyl	*92*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH16

Lab Sample ID: 890-2030-9
Matrix: Solid
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		24.8		mg/Kg			03/05/22 17:53	5

Client Sample ID: BH16

Lab Sample ID: 890-2030-10
Matrix: Solid
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		50.1		mg/Kg			03/05/22 18:28	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Lab Sample ID: 890-2030-11
Matrix: Solid
Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1090**		24.9		mg/Kg			03/05/22 18:40	5

Client Sample ID: BH17

Lab Sample ID: 890-2030-12
Matrix: Solid
Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-12

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8280**		100		mg/Kg			03/05/22 18:52	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11719-A-1-J MS	Matrix Spike	89	123
880-11719-A-1-K MSD	Matrix Spike Duplicate	94	124
890-2030-1	BH12	101	114
890-2030-2	BH12	9 S1-	101
890-2030-3	BH13	102	118
890-2030-4	BH13	8 S1-	108
890-2030-5	BH14	87	116
890-2030-6	BH14	106	119
890-2030-7	BH15	170 S1+	85
890-2030-8	BH15	94	110
890-2030-9	BH16	83	105
890-2030-10	BH16	89	108
890-2030-11	BH17	99	106
890-2030-12	BH17	101	108
LCS 880-20687/1-A	Lab Control Sample	82	116
LCSD 880-20687/2-A	Lab Control Sample Dup	84	111
MB 880-20687/5-A	Method Blank	51 S1-	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2030-1	BH12	100	104
890-2030-1 MS	BH12	94	100
890-2030-1 MSD	BH12	99	95
890-2030-2	BH12	99	103
890-2030-3	BH13	108	112
890-2030-4	BH13	95	97
890-2030-5	BH14	104	106
890-2030-6	BH14	118	120
890-2030-7	BH15	97	99
890-2030-8	BH15	108	111
890-2030-9	BH16	93	92
890-2030-10	BH16	105	106
890-2030-11	BH17	96	97
890-2030-12	BH17	99	103
LCS 880-20658/2-A	Lab Control Sample	107	106
LCSD 880-20658/3-A	Lab Control Sample Dup	106	105
MB 880-20658/1-A	Method Blank	112	117

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20687/5-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*

Lab Sample ID: LCS 880-20687/1-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08533		mg/Kg		85	70 - 130		
Toluene			0.100	0.08536		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.09079		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1854		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09200		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-20687/2-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09073		mg/Kg		91	70 - 130	6	35
Toluene			0.100	0.08702		mg/Kg		87	70 - 130	2	35
Ethylbenzene			0.100	0.09419		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1931		mg/Kg		97	70 - 130	4	35
o-Xylene			0.100	0.09334		mg/Kg		93	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130		
Toluene	<0.00199	U	0.0998	0.09757		mg/Kg		98	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2115		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1057		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*

Lab Sample ID: 880-11719-A-1-K MSD
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1073		mg/Kg		106	70 - 130	4	35
Toluene	<0.00199	U	0.101	0.1009		mg/Kg		100	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.101	0.1083		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2216		mg/Kg		110	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.1086		mg/Kg		107	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20658/1-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*
o-Terphenyl	*117*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	930.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	852.2		mg/Kg		85	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20658/3-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	971.8		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	874.2		mg/Kg		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-2030-1 MS
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1077		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	943.7		mg/Kg		94	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2030-1 MSD
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1086		mg/Kg		106	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	910.9		mg/Kg		91	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20681/1-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/05/22 13:14	1

Lab Sample ID: LCS 880-20681/2-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	254.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-20681/3-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	257.4		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-2030-7 MS
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	77.5		250	316.5		mg/Kg		96	90 - 110		

Lab Sample ID: 890-2030-7 MSD
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	77.5		250	321.4		mg/Kg		98	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA

Prep Batch: 20687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	5035	
890-2030-2	BH12	Total/NA	Solid	5035	
890-2030-3	BH13	Total/NA	Solid	5035	
890-2030-4	BH13	Total/NA	Solid	5035	
890-2030-5	BH14	Total/NA	Solid	5035	
890-2030-6	BH14	Total/NA	Solid	5035	
890-2030-7	BH15	Total/NA	Solid	5035	
890-2030-8	BH15	Total/NA	Solid	5035	
890-2030-9	BH16	Total/NA	Solid	5035	
890-2030-10	BH16	Total/NA	Solid	5035	
890-2030-11	BH17	Total/NA	Solid	5035	
890-2030-12	BH17	Total/NA	Solid	5035	
MB 880-20687/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8021B	20687
890-2030-2	BH12	Total/NA	Solid	8021B	20687
890-2030-3	BH13	Total/NA	Solid	8021B	20687
890-2030-4	BH13	Total/NA	Solid	8021B	20687
890-2030-5	BH14	Total/NA	Solid	8021B	20687
890-2030-6	BH14	Total/NA	Solid	8021B	20687
890-2030-7	BH15	Total/NA	Solid	8021B	20687
890-2030-8	BH15	Total/NA	Solid	8021B	20687
890-2030-9	BH16	Total/NA	Solid	8021B	20687
890-2030-10	BH16	Total/NA	Solid	8021B	20687
890-2030-11	BH17	Total/NA	Solid	8021B	20687
890-2030-12	BH17	Total/NA	Solid	8021B	20687
MB 880-20687/5-A	Method Blank	Total/NA	Solid	8021B	20687
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	8021B	20687
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20687
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	20687
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20687

Analysis Batch: 21059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	Total BTEX	
890-2030-2	BH12	Total/NA	Solid	Total BTEX	
890-2030-3	BH13	Total/NA	Solid	Total BTEX	
890-2030-4	BH13	Total/NA	Solid	Total BTEX	
890-2030-5	BH14	Total/NA	Solid	Total BTEX	
890-2030-6	BH14	Total/NA	Solid	Total BTEX	
890-2030-7	BH15	Total/NA	Solid	Total BTEX	
890-2030-8	BH15	Total/NA	Solid	Total BTEX	
890-2030-9	BH16	Total/NA	Solid	Total BTEX	
890-2030-10	BH16	Total/NA	Solid	Total BTEX	
890-2030-11	BH17	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA (Continued)

Analysis Batch: 21059 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-12	BH17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 20655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015B NM	20658
890-2030-2	BH12	Total/NA	Solid	8015B NM	20658
890-2030-3	BH13	Total/NA	Solid	8015B NM	20658
890-2030-4	BH13	Total/NA	Solid	8015B NM	20658
890-2030-5	BH14	Total/NA	Solid	8015B NM	20658
890-2030-6	BH14	Total/NA	Solid	8015B NM	20658
890-2030-7	BH15	Total/NA	Solid	8015B NM	20658
890-2030-8	BH15	Total/NA	Solid	8015B NM	20658
890-2030-9	BH16	Total/NA	Solid	8015B NM	20658
890-2030-10	BH16	Total/NA	Solid	8015B NM	20658
890-2030-11	BH17	Total/NA	Solid	8015B NM	20658
890-2030-12	BH17	Total/NA	Solid	8015B NM	20658
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015B NM	20658
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20658
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20658
890-2030-1 MS	BH12	Total/NA	Solid	8015B NM	20658
890-2030-1 MSD	BH12	Total/NA	Solid	8015B NM	20658

Prep Batch: 20658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015NM Prep	
890-2030-2	BH12	Total/NA	Solid	8015NM Prep	
890-2030-3	BH13	Total/NA	Solid	8015NM Prep	
890-2030-4	BH13	Total/NA	Solid	8015NM Prep	
890-2030-5	BH14	Total/NA	Solid	8015NM Prep	
890-2030-6	BH14	Total/NA	Solid	8015NM Prep	
890-2030-7	BH15	Total/NA	Solid	8015NM Prep	
890-2030-8	BH15	Total/NA	Solid	8015NM Prep	
890-2030-9	BH16	Total/NA	Solid	8015NM Prep	
890-2030-10	BH16	Total/NA	Solid	8015NM Prep	
890-2030-11	BH17	Total/NA	Solid	8015NM Prep	
890-2030-12	BH17	Total/NA	Solid	8015NM Prep	
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2030-1 MS	BH12	Total/NA	Solid	8015NM Prep	
890-2030-1 MSD	BH12	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015 NM	
890-2030-2	BH12	Total/NA	Solid	8015 NM	
890-2030-3	BH13	Total/NA	Solid	8015 NM	
890-2030-4	BH13	Total/NA	Solid	8015 NM	
890-2030-5	BH14	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC Semi VOA (Continued)

Analysis Batch: 20812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-6	BH14	Total/NA	Solid	8015 NM	
890-2030-7	BH15	Total/NA	Solid	8015 NM	
890-2030-8	BH15	Total/NA	Solid	8015 NM	
890-2030-9	BH16	Total/NA	Solid	8015 NM	
890-2030-10	BH16	Total/NA	Solid	8015 NM	
890-2030-11	BH17	Total/NA	Solid	8015 NM	
890-2030-12	BH17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	DI Leach	
890-2030-2	BH12	Soluble	Solid	DI Leach	
890-2030-3	BH13	Soluble	Solid	DI Leach	
890-2030-4	BH13	Soluble	Solid	DI Leach	
890-2030-5	BH14	Soluble	Solid	DI Leach	
890-2030-6	BH14	Soluble	Solid	DI Leach	
890-2030-7	BH15	Soluble	Solid	DI Leach	
890-2030-8	BH15	Soluble	Solid	DI Leach	
890-2030-9	BH16	Soluble	Solid	DI Leach	
890-2030-10	BH16	Soluble	Solid	DI Leach	
890-2030-11	BH17	Soluble	Solid	DI Leach	
890-2030-12	BH17	Soluble	Solid	DI Leach	
MB 880-20681/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2030-7 MS	BH15	Soluble	Solid	DI Leach	
890-2030-7 MSD	BH15	Soluble	Solid	DI Leach	

Analysis Batch: 20963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	300.0	20681
890-2030-2	BH12	Soluble	Solid	300.0	20681
890-2030-3	BH13	Soluble	Solid	300.0	20681
890-2030-4	BH13	Soluble	Solid	300.0	20681
890-2030-5	BH14	Soluble	Solid	300.0	20681
890-2030-6	BH14	Soluble	Solid	300.0	20681
890-2030-7	BH15	Soluble	Solid	300.0	20681
890-2030-8	BH15	Soluble	Solid	300.0	20681
890-2030-9	BH16	Soluble	Solid	300.0	20681
890-2030-10	BH16	Soluble	Solid	300.0	20681
890-2030-11	BH17	Soluble	Solid	300.0	20681
890-2030-12	BH17	Soluble	Solid	300.0	20681
MB 880-20681/1-A	Method Blank	Soluble	Solid	300.0	20681
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	300.0	20681
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20681
890-2030-7 MS	BH15	Soluble	Solid	300.0	20681
890-2030-7 MSD	BH15	Soluble	Solid	300.0	20681

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 15:30	SC	XEN MID

Client Sample ID: BH12
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 16:06	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:18	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:30	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:41	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:53	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 19:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:18	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:05	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 20:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:41	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 17:53	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 06:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 18:28	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 18:40	SC	XEN MID

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		20			20963	03/05/22 18:52	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2030-1	BH12	Solid	02/28/22 10:30	03/01/22 08:50	2
890-2030-2	BH12	Solid	02/28/22 10:33	03/01/22 08:50	4
890-2030-3	BH13	Solid	02/28/22 11:20	03/01/22 08:50	2
890-2030-4	BH13	Solid	02/28/22 11:25	03/01/22 08:50	4
890-2030-5	BH14	Solid	02/28/22 11:30	03/01/22 08:50	0.5
890-2030-6	BH14	Solid	02/28/22 11:35	03/01/22 08:50	4
890-2030-7	BH15	Solid	02/28/22 11:40	03/01/22 08:50	0.5
890-2030-8	BH15	Solid	02/28/22 11:50	03/01/22 08:50	4
890-2030-9	BH16	Solid	02/28/22 13:20	03/01/22 08:50	2
890-2030-10	BH16	Solid	02/28/22 13:25	03/01/22 08:50	4
890-2030-11	BH17	Solid	02/28/22 14:15	03/01/22 08:50	2
890-2030-12	BH17	Solid	02/28/22 14:20	03/01/22 08:50	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine ☑	
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.2/1.0	Thermometer ID		
Received Intact:	(Yes) No	TNM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-2030 Chain of Custody

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH12	S	2.28.22	10:30	2	1	X	X	X
BH12	S	2.28.22	10:33	4	1	X	X	X
BH13	S	2.28.22	11:20	2	1	X	X	X
BH13	S	2.28.22	11:25	4	1	X	X	X
BH14	S	2.28.22	11:30	0.5	1	X	X	X
BH14	S	2.28.22	11:35	4	1	X	X	X
BH15	S	2.28.22	11:40	0.5	1	X	X	X
BH15	S	2.28.22	11:50	4	1	X	X	X
BH16	S	2.28.22	13:20	2	1	X	X	X
BH16	S	2.28.22	13:25	4	1	X	X	X

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3.1.22 0883	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329 Email		Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine	☑
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):		Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH17	S	2.28.22	14:15	2	1	X	X	X
BH17	S	2.28.22	14:20	4	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

3.1.22

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3.1.22 0850	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/02/22 11:22 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2040-1
Laboratory SDG: 31403360.036,31403360.035
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/14/2022 1:37:54 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Job ID: 890-2040-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2040-1

Receipt
The samples were received on 3/3/2022 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-20924 and analytical batch 880-21381 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH04 (890-2040-7), BH08 (890-2040-16), BH09 (890-2040-17), BH10 (890-2040-19) and BH10 (890-2040-20). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-21026 and analytical batch 880-21137 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-1
Matrix: Solid
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8700**		99.8		mg/Kg			03/09/22 01:31	20

Client Sample ID: BH01

Lab Sample ID: 890-2040-2
Matrix: Solid
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-2
Matrix: Solid
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*118*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9220**		99.2		mg/Kg			03/09/22 12:55	20

Client Sample ID: BH02

Lab Sample ID: 890-2040-3
Matrix: Solid
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*
o-Terphenyl	*79*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4300**		49.8		mg/Kg			03/09/22 09:22	10

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*
o-Terphenyl	*86*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8350		100		mg/Kg			03/09/22 09:31	20

Client Sample ID: BH03

Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10
Sample Depth: 2

Lab Sample ID: 890-2040-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3310		49.7		mg/Kg			03/09/22 09:40	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH03

Lab Sample ID: 890-2040-6
Matrix: Solid
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*
o-Terphenyl	*83*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12600**		99.0		mg/Kg			03/09/22 10:06	20

Client Sample ID: BH04

Lab Sample ID: 890-2040-7
Matrix: Solid
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.3**	**F1**	4.96		mg/Kg			03/09/22 16:05	1

Client Sample ID: BH04

Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Lab Sample ID: 890-2040-8
Matrix: Solid
Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*
o-Terphenyl	*81*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.1**		5.00		mg/Kg			03/09/22 16:23	1

Client Sample ID: BH05

Lab Sample ID: 890-2040-9
Matrix: Solid
Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*302*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*
1,4-Difluorobenzene (Surr)	*273*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*
o-Terphenyl	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH05

Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.80		4.98		mg/Kg			03/09/22 16:29	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*
o-Terphenyl	*73*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.00		mg/Kg			03/09/22 16:52	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-11
Matrix: Solid
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*
o-Terphenyl	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			03/09/22 16:58	1

Client Sample ID: BH06

Lab Sample ID: 890-2040-12
Matrix: Solid
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-12
Matrix: Solid
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*75*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.4**		5.04		mg/Kg			03/09/22 17:16	1

Client Sample ID: BH07

Lab Sample ID: 890-2040-13
Matrix: Solid
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-13

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.01**		4.98		mg/Kg			03/09/22 17:21	1

Client Sample ID: BH07

Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-14

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		5.01		mg/Kg			03/09/22 17:27	1

Client Sample ID: BH08

Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-15

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.90		4.99		mg/Kg			03/09/22 17:33	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH08

Lab Sample ID: 890-2040-16
Matrix: Solid
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.4*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*
o-Terphenyl	*2*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.1**		4.95		mg/Kg			03/09/22 17:39	1

Client Sample ID: BH09

Lab Sample ID: 890-2040-17
Matrix: Solid
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*
o-Terphenyl	*58*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		5.00		mg/Kg			03/09/22 17:45	1

Client Sample ID: BH09

Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-18

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Lab Sample ID: 890-2040-18
Matrix: Solid
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Diesel Range Organics (Over C10-C28)	<49.8	U *-	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		5.05		mg/Kg			03/09/22 18:03	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-19
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*
o-Terphenyl	*62*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH10

Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-19

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.95**		4.97		mg/Kg			03/09/22 18:09	1

Client Sample ID: BH10

Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-20

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.6**		50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Diesel Range Organics (Over C10-C28)	**70.6**	***-**	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.03*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.6**		4.98		mg/Kg			03/09/22 18:26	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	103	98										
890-2040-1 MS	BH01	100	99										
890-2040-1 MSD	BH01	101	99										
890-2040-2	BH01	105	97										
890-2040-3	BH02	101	96										
890-2040-4	BH02	109	101										
890-2040-5	BH03	108	99										
890-2040-6	BH03	108	98										
890-2040-7	BH04	107	99										
890-2040-8	BH04	110	101										
890-2040-9	BH05	302 S1+	273 S1+										
890-2040-10	BH05	108	98										
890-2040-11	BH06	109	100										
890-2040-12	BH06	108	98										
890-2040-13	BH07	105	97										
890-2040-14	BH07	109	98										
890-2040-15	BH08	108	98										
890-2040-16	BH08	106	98										
890-2040-17	BH09	110	102										
890-2040-18	BH09	112	98										
890-2040-19	BH10	103	98										
890-2040-20	BH10	104	98										
LCS 880-20908/1-A	Lab Control Sample	99	100										
LCSD 880-20908/2-A	Lab Control Sample Dup	99	100										
MB 880-20906/5-A	Method Blank	99	93										
MB 880-20908/5-A	Method Blank	95	93										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	98	105										
890-2040-1 MS	BH01	108	107										
890-2040-1 MSD	BH01	112	107										
890-2040-2	BH01	118	123										
890-2040-3	BH02	74	79										
890-2040-4	BH02	82	86										
890-2040-5	BH03	72	78										
890-2040-6	BH03	77	83										
890-2040-7	BH04	65 S1-	65 S1-										
890-2040-8	BH04	80	81										
890-2040-9	BH05	78	72										
890-2040-10	BH05	70	73										
890-2040-11	BH06	79	77										

Surrogate Summary

Client: WSP USA Inc.
Job ID: 890-2040-1
Project/Site: RDU 11
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
890-2040-12	BH06	75	78								
890-2040-13	BH07	87	91								
890-2040-14	BH07	98	101								
890-2040-15	BH08	85	88								
890-2040-16	BH08	0.4 S1-	2 S1-								
890-2040-17	BH09	61 S1-	58 S1-								
890-2040-18	BH09	87	90								
890-2040-19	BH10	61 S1-	62 S1-								
890-2040-20	BH10	0.03 S1-	91								
LCS 880-20924/2-A	Lab Control Sample	101	103								
LCSD 880-20924/3-A	Lab Control Sample Dup	113	115								
MB 880-20924/1-A	Method Blank	101	109								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20906/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*

Lab Sample ID: MB 880-20908/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*

Lab Sample ID: LCS 880-20908/1-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1006		mg/Kg		101	70 - 130
Toluene	0.100	0.09711		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09592		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1986		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09573		mg/Kg		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	2	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09990		mg/Kg		100	70 - 130	3	35
Ethylbenzene			0.100	0.09791		mg/Kg		98	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2036		mg/Kg		102	70 - 130	2	35
o-Xylene			0.100	0.09864		mg/Kg		99	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.1074		mg/Kg		108	70 - 130
Toluene	<0.00199	U	0.0990	0.1038		mg/Kg		105	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1022		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2108		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0990	0.1024		mg/Kg		103	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00199	U	0.0994	0.09897		mg/Kg		100	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0994	0.09699		mg/Kg		98	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2012		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00199	U	0.0994	0.09863		mg/Kg		99	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*

Lab Sample ID: LCS 880-20924/2-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	962.5		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	686.5	*-	mg/Kg		69	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-20924/3-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1041		mg/Kg		104	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	768.2		mg/Kg		77	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1019		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	1000	801.0		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1099		mg/Kg		107	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U *-	998	821.3		mg/Kg		80	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21026/1-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 15:48	1

Lab Sample ID: LCS 880-21026/2-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.2		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-21026/3-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	243.8		mg/Kg		98	90 - 110	5	20

Lab Sample ID: 890-2040-7 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	45.3	F1	248	261.4	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-2040-7 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	45.3	F1	248	262.7	F1	mg/Kg		88	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2040-17 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.4		250	281.4		mg/Kg		108	90 - 110

Lab Sample ID: 890-2040-17 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.4		250	273.4		mg/Kg		105	90 - 110	3	20

Lab Sample ID: MB 880-21025/1-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 01:05	1

Lab Sample ID: LCS 880-21025/2-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-21025/3-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.3		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8700		4990	13740		mg/Kg		101	90 - 110

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8700		4990	13490		mg/Kg		96	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA

Prep Batch: 20906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20906/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 20908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	5035	
890-2040-2	BH01	Total/NA	Solid	5035	
890-2040-3	BH02	Total/NA	Solid	5035	
890-2040-4	BH02	Total/NA	Solid	5035	
890-2040-5	BH03	Total/NA	Solid	5035	
890-2040-6	BH03	Total/NA	Solid	5035	
890-2040-7	BH04	Total/NA	Solid	5035	
890-2040-8	BH04	Total/NA	Solid	5035	
890-2040-9	BH05	Total/NA	Solid	5035	
890-2040-10	BH05	Total/NA	Solid	5035	
890-2040-11	BH06	Total/NA	Solid	5035	
890-2040-12	BH06	Total/NA	Solid	5035	
890-2040-13	BH07	Total/NA	Solid	5035	
890-2040-14	BH07	Total/NA	Solid	5035	
890-2040-15	BH08	Total/NA	Solid	5035	
890-2040-16	BH08	Total/NA	Solid	5035	
890-2040-17	BH09	Total/NA	Solid	5035	
890-2040-18	BH09	Total/NA	Solid	5035	
890-2040-19	BH10	Total/NA	Solid	5035	
890-2040-20	BH10	Total/NA	Solid	5035	
MB 880-20908/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2040-1 MS	BH01	Total/NA	Solid	5035	
890-2040-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8021B	20908
890-2040-2	BH01	Total/NA	Solid	8021B	20908
890-2040-3	BH02	Total/NA	Solid	8021B	20908
890-2040-4	BH02	Total/NA	Solid	8021B	20908
890-2040-5	BH03	Total/NA	Solid	8021B	20908
890-2040-6	BH03	Total/NA	Solid	8021B	20908
890-2040-7	BH04	Total/NA	Solid	8021B	20908
890-2040-8	BH04	Total/NA	Solid	8021B	20908
890-2040-9	BH05	Total/NA	Solid	8021B	20908
890-2040-10	BH05	Total/NA	Solid	8021B	20908
890-2040-11	BH06	Total/NA	Solid	8021B	20908
890-2040-12	BH06	Total/NA	Solid	8021B	20908
890-2040-13	BH07	Total/NA	Solid	8021B	20908
890-2040-14	BH07	Total/NA	Solid	8021B	20908
890-2040-15	BH08	Total/NA	Solid	8021B	20908
890-2040-16	BH08	Total/NA	Solid	8021B	20908
890-2040-17	BH09	Total/NA	Solid	8021B	20908
890-2040-18	BH09	Total/NA	Solid	8021B	20908
890-2040-19	BH10	Total/NA	Solid	8021B	20908

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA (Continued)

Analysis Batch: 21187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-20	BH10	Total/NA	Solid	8021B	20908
MB 880-20906/5-A	Method Blank	Total/NA	Solid	8021B	20906
MB 880-20908/5-A	Method Blank	Total/NA	Solid	8021B	20908
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	8021B	20908
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20908
890-2040-1 MS	BH01	Total/NA	Solid	8021B	20908
890-2040-1 MSD	BH01	Total/NA	Solid	8021B	20908

Analysis Batch: 21336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	Total BTEX	
890-2040-2	BH01	Total/NA	Solid	Total BTEX	
890-2040-3	BH02	Total/NA	Solid	Total BTEX	
890-2040-4	BH02	Total/NA	Solid	Total BTEX	
890-2040-5	BH03	Total/NA	Solid	Total BTEX	
890-2040-6	BH03	Total/NA	Solid	Total BTEX	
890-2040-7	BH04	Total/NA	Solid	Total BTEX	
890-2040-8	BH04	Total/NA	Solid	Total BTEX	
890-2040-9	BH05	Total/NA	Solid	Total BTEX	
890-2040-10	BH05	Total/NA	Solid	Total BTEX	
890-2040-11	BH06	Total/NA	Solid	Total BTEX	
890-2040-12	BH06	Total/NA	Solid	Total BTEX	
890-2040-13	BH07	Total/NA	Solid	Total BTEX	
890-2040-14	BH07	Total/NA	Solid	Total BTEX	
890-2040-15	BH08	Total/NA	Solid	Total BTEX	
890-2040-16	BH08	Total/NA	Solid	Total BTEX	
890-2040-17	BH09	Total/NA	Solid	Total BTEX	
890-2040-18	BH09	Total/NA	Solid	Total BTEX	
890-2040-19	BH10	Total/NA	Solid	Total BTEX	
890-2040-20	BH10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015NM Prep	
890-2040-2	BH01	Total/NA	Solid	8015NM Prep	
890-2040-3	BH02	Total/NA	Solid	8015NM Prep	
890-2040-4	BH02	Total/NA	Solid	8015NM Prep	
890-2040-5	BH03	Total/NA	Solid	8015NM Prep	
890-2040-6	BH03	Total/NA	Solid	8015NM Prep	
890-2040-7	BH04	Total/NA	Solid	8015NM Prep	
890-2040-8	BH04	Total/NA	Solid	8015NM Prep	
890-2040-9	BH05	Total/NA	Solid	8015NM Prep	
890-2040-10	BH05	Total/NA	Solid	8015NM Prep	
890-2040-11	BH06	Total/NA	Solid	8015NM Prep	
890-2040-12	BH06	Total/NA	Solid	8015NM Prep	
890-2040-13	BH07	Total/NA	Solid	8015NM Prep	
890-2040-14	BH07	Total/NA	Solid	8015NM Prep	
890-2040-15	BH08	Total/NA	Solid	8015NM Prep	
890-2040-16	BH08	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Prep Batch: 20924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-17	BH09	Total/NA	Solid	8015NM Prep	
890-2040-18	BH09	Total/NA	Solid	8015NM Prep	
890-2040-19	BH10	Total/NA	Solid	8015NM Prep	
890-2040-20	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2040-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2040-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015B NM	20924
890-2040-2	BH01	Total/NA	Solid	8015B NM	20924
890-2040-3	BH02	Total/NA	Solid	8015B NM	20924
890-2040-4	BH02	Total/NA	Solid	8015B NM	20924
890-2040-5	BH03	Total/NA	Solid	8015B NM	20924
890-2040-6	BH03	Total/NA	Solid	8015B NM	20924
890-2040-7	BH04	Total/NA	Solid	8015B NM	20924
890-2040-8	BH04	Total/NA	Solid	8015B NM	20924
890-2040-9	BH05	Total/NA	Solid	8015B NM	20924
890-2040-10	BH05	Total/NA	Solid	8015B NM	20924
890-2040-11	BH06	Total/NA	Solid	8015B NM	20924
890-2040-12	BH06	Total/NA	Solid	8015B NM	20924
890-2040-13	BH07	Total/NA	Solid	8015B NM	20924
890-2040-14	BH07	Total/NA	Solid	8015B NM	20924
890-2040-15	BH08	Total/NA	Solid	8015B NM	20924
890-2040-16	BH08	Total/NA	Solid	8015B NM	20924
890-2040-17	BH09	Total/NA	Solid	8015B NM	20924
890-2040-18	BH09	Total/NA	Solid	8015B NM	20924
890-2040-19	BH10	Total/NA	Solid	8015B NM	20924
890-2040-20	BH10	Total/NA	Solid	8015B NM	20924
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015B NM	20924
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20924
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20924
890-2040-1 MS	BH01	Total/NA	Solid	8015B NM	20924
890-2040-1 MSD	BH01	Total/NA	Solid	8015B NM	20924

Analysis Batch: 21529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015 NM	
890-2040-2	BH01	Total/NA	Solid	8015 NM	
890-2040-3	BH02	Total/NA	Solid	8015 NM	
890-2040-4	BH02	Total/NA	Solid	8015 NM	
890-2040-5	BH03	Total/NA	Solid	8015 NM	
890-2040-6	BH03	Total/NA	Solid	8015 NM	
890-2040-7	BH04	Total/NA	Solid	8015 NM	
890-2040-8	BH04	Total/NA	Solid	8015 NM	
890-2040-9	BH05	Total/NA	Solid	8015 NM	
890-2040-10	BH05	Total/NA	Solid	8015 NM	
890-2040-11	BH06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Analysis Batch: 21529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-12	BH06	Total/NA	Solid	8015 NM	
890-2040-13	BH07	Total/NA	Solid	8015 NM	
890-2040-14	BH07	Total/NA	Solid	8015 NM	
890-2040-15	BH08	Total/NA	Solid	8015 NM	
890-2040-16	BH08	Total/NA	Solid	8015 NM	
890-2040-17	BH09	Total/NA	Solid	8015 NM	
890-2040-18	BH09	Total/NA	Solid	8015 NM	
890-2040-19	BH10	Total/NA	Solid	8015 NM	
890-2040-20	BH10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	DI Leach	
890-2040-2	BH01	Soluble	Solid	DI Leach	
890-2040-3	BH02	Soluble	Solid	DI Leach	
890-2040-4	BH02	Soluble	Solid	DI Leach	
890-2040-5	BH03	Soluble	Solid	DI Leach	
890-2040-6	BH03	Soluble	Solid	DI Leach	
MB 880-21025/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-1 MS	BH01	Soluble	Solid	DI Leach	
890-2040-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 21026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	DI Leach	
890-2040-8	BH04	Soluble	Solid	DI Leach	
890-2040-9	BH05	Soluble	Solid	DI Leach	
890-2040-10	BH05	Soluble	Solid	DI Leach	
890-2040-11	BH06	Soluble	Solid	DI Leach	
890-2040-12	BH06	Soluble	Solid	DI Leach	
890-2040-13	BH07	Soluble	Solid	DI Leach	
890-2040-14	BH07	Soluble	Solid	DI Leach	
890-2040-15	BH08	Soluble	Solid	DI Leach	
890-2040-16	BH08	Soluble	Solid	DI Leach	
890-2040-17	BH09	Soluble	Solid	DI Leach	
890-2040-18	BH09	Soluble	Solid	DI Leach	
890-2040-19	BH10	Soluble	Solid	DI Leach	
890-2040-20	BH10	Soluble	Solid	DI Leach	
MB 880-21026/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-7 MS	BH04	Soluble	Solid	DI Leach	
890-2040-7 MSD	BH04	Soluble	Solid	DI Leach	
890-2040-17 MS	BH09	Soluble	Solid	DI Leach	
890-2040-17 MSD	BH09	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

HPLC/IC

Analysis Batch: 21137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	300.0	21026
890-2040-8	BH04	Soluble	Solid	300.0	21026
890-2040-9	BH05	Soluble	Solid	300.0	21026
890-2040-10	BH05	Soluble	Solid	300.0	21026
890-2040-11	BH06	Soluble	Solid	300.0	21026
890-2040-12	BH06	Soluble	Solid	300.0	21026
890-2040-13	BH07	Soluble	Solid	300.0	21026
890-2040-14	BH07	Soluble	Solid	300.0	21026
890-2040-15	BH08	Soluble	Solid	300.0	21026
890-2040-16	BH08	Soluble	Solid	300.0	21026
890-2040-17	BH09	Soluble	Solid	300.0	21026
890-2040-18	BH09	Soluble	Solid	300.0	21026
890-2040-19	BH10	Soluble	Solid	300.0	21026
890-2040-20	BH10	Soluble	Solid	300.0	21026
MB 880-21026/1-A	Method Blank	Soluble	Solid	300.0	21026
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	300.0	21026
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21026
890-2040-7 MS	BH04	Soluble	Solid	300.0	21026
890-2040-7 MSD	BH04	Soluble	Solid	300.0	21026
890-2040-17 MS	BH09	Soluble	Solid	300.0	21026
890-2040-17 MSD	BH09	Soluble	Solid	300.0	21026

Analysis Batch: 21139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	300.0	21025
890-2040-2	BH01	Soluble	Solid	300.0	21025
890-2040-3	BH02	Soluble	Solid	300.0	21025
890-2040-4	BH02	Soluble	Solid	300.0	21025
890-2040-5	BH03	Soluble	Solid	300.0	21025
890-2040-6	BH03	Soluble	Solid	300.0	21025
MB 880-21025/1-A	Method Blank	Soluble	Solid	300.0	21025
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	300.0	21025
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21025
890-2040-1 MS	BH01	Soluble	Solid	300.0	21025
890-2040-1 MSD	BH01	Soluble	Solid	300.0	21025

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 22:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 01:31	CH	XEN MID

Client Sample ID: BH01
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 12:55	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:22	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 09:31	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:40	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 10:06	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:05	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:05	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:23	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:29	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 02:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:52	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:58	CH	XEN MID

Client Sample ID: BH06
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:16	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:21	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:27	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:39	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:01	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:45	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:03	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:09	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 06:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:26	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2040-1	BH01	Solid	03/03/22 11:05	03/03/22 15:10	2
890-2040-2	BH01	Solid	03/03/22 11:07	03/03/22 15:10	4
890-2040-3	BH02	Solid	03/03/22 11:10	03/03/22 15:10	0.5
890-2040-4	BH02	Solid	03/03/22 11:20	03/03/22 15:10	4
890-2040-5	BH03	Solid	03/03/22 11:37	03/03/22 15:10	2
890-2040-6	BH03	Solid	03/03/22 11:40	03/03/22 15:10	4
890-2040-7	BH04	Solid	03/03/22 09:25	03/03/22 15:10	0.5
890-2040-8	BH04	Solid	03/03/22 09:30	03/03/22 15:10	4
890-2040-9	BH05	Solid	03/03/22 09:35	03/03/22 15:10	0.5
890-2040-10	BH05	Solid	03/03/22 09:40	03/03/22 15:10	4
890-2040-11	BH06	Solid	03/03/22 09:45	03/03/22 15:10	0.5
890-2040-12	BH06	Solid	03/03/22 09:50	03/03/22 15:10	4
890-2040-13	BH07	Solid	03/03/22 09:55	03/03/22 15:10	0.5
890-2040-14	BH07	Solid	03/03/22 10:00	03/03/22 15:10	4
890-2040-15	BH08	Solid	03/03/22 10:05	03/03/22 15:10	0.5
890-2040-16	BH08	Solid	03/03/22 10:10	03/03/22 15:10	4
890-2040-17	BH09	Solid	03/03/22 10:15	03/03/22 15:10	0.5
890-2040-18	BH09	Solid	03/03/22 10:25	03/03/22 15:10	4
890-2040-19	BH10	Solid	03/03/22 10:30	03/03/22 15:10	0.5
890-2040-20	BH10	Solid	03/03/22 10:35	03/03/22 15:10	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

3/14/2022

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	X
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.7 1.0	Thermometer ID	T-NM-002	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	3.2.22	11:05	2	1	X	X	X
BH01	S	3.2.22	11:07	4	1	X	X	X
BH02	S	3.2.22	11:10	0.5	1	X	X	X
BH02	S	3.2.22	11:20	4	1	X	X	X
BH03	S	3.2.22	11:37	2	1	X	X	X
BH03	S	3.2.22	11:40	4	1	X	X	X
BH04	S	3.3.22	9:25	0.5	1	X	X	X
BH04	S	3.3.22	9:30	4	1	X	X	X
BH05	S	3.3.22	9:35	0.5	1	X	X	X
BH05	S	3.3.22	9:40	4	1	X	X	X

890-2040 Chain of Custody

Work Order Notes

CC: 113763100
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/3/22 3:40			
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 2 of 2

Work Order No: _____

3/14/2022

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	☒
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.2 / 1.0	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

CC: 113763100
AFE:
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH06	S	3.3.22	9:45	0.5	1	X	X	X	
BH06	S	3.3.22	9:50	4	1	X	X	X	
BH07	S	3.3.22	9:55	0.5	1	X	X	X	
BH07	S	3.3.22	10:00	4	1	X	X	X	
BH08	S	3.3.22	10:05	0.5	1	X	X	X	
BH08	S	3.3.22	10:10	4	1	X	X	X	
BH09	S	3.3.22	10:15	0.5	1	X	X	X	
BH09	S	3.3.22	10:25	4	1	X	X	X	
BH10	S	3.3.22	10:30	0.5	1	X	X	X	
BH10	S	3.3.22	10:35	4	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/3/22 3:19	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-652 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL	M Hexane
B NaOH	N None
C - Zn Acetate	O - AsNaO2
D Nitric Acid	P Na2O4S
E - NaHSO4	Q - Na2SO3
F MeOH	R - Na2S2O3
G Amchlor	S H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U Acetone
J - DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH01 (890-2040-1)	3/3/22	11 05 Mountain		Solid			X	X	X	X	X	1	
BH01 (890-2040-2)	3/3/22	11 07 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-3)	3/3/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-4)	3/3/22	11 20 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-5)	3/3/22	11 37 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-8)	3/3/22	11 40 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-7)	3/3/22	09 25 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-8)	3/3/22	09 30 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-2040-9)	3/3/22	09 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: KJ 3.4.22

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Olan Cup 3 4 22			KJ	3.4.22 13:00	Xenco
Relinquished by	Date/Time	Company	Received by	Date/Time 13:15	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-652 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M - Hexane
B - NaOH	N None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W - pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH05 (890-2040-10)	3/3/22	09 40 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-11)	3/3/22	09 45 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-12)	3/3/22	09 50 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-13)	3/3/22	09 55 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-14)	3/3/22	10 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-15)	3/3/22	10 05 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-16)	3/3/22	10 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-17)	3/3/22	10 15 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-18)	3/3/22	10 25 Mountain		Solid			X	X	X	X	X	1	

Note. Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time.	Method of Shipment:

Relinquished by: Clive Cuff 3422	Date/Time	Company	Received by:	Date/Time: 3/4/22 13:15	Company: Xenco
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-652 3
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 3 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M Hexane
B NaOH	N None
C Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I - Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH10 (890-2040-19)	3/3/22	10 30 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2040-20)	3/3/22	10 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Clae Cap 3422				3422 1315	Xenco
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
Δ Yes Δ No		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 03/04/22 01:21 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 95617
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. At this time, the largest variance the OCD can grant is 500 ft2 for confirmation samples. Sidewall and floor samples should represent no more than 500 ft2. The work will need to occur in 90 days after the work plan has been approved.	5/4/2022

APPENDIX J

Closure Request Report – nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Environmental & Safety Solutions, Inc.

CLOSURE REQUEST REPORT

Ross Draw Unit #011

Eddy County, New Mexico

Incident Numbers:

nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing corrective actions and subsequent soil sampling events as proposed in an approved Remediation Work Plan (RWP), performed for four inadvertent releases of crude oil and/or produced water at the Ross Draw Unit #011 (Site). Based on the completed remedial actions and laboratory analytical results from recent soil sampling events, WPX is requesting No Further Action (NFA) at the Site.

SITE LOCATION AND RELEASE BACKGROUNDS

The Site is located in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.022210°, -103.867013°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (**Figure 1** in **Appendix A**).

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

As originally documented in the RWP, four inadvertent reportable spill incidents occurred between April 20, 2017, and January 4, 2022, and released approximately 94 barrels (bbls) of produced water and/or crude oil at the Site, of which approximately 40 bbls of fluids were successfully recovered. WPX reported the releases to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141s (Form C-141) between April 21, 2017, and January 10, 2022.

The RWP proposed corrective actions to address identified residual soil impacts exceeding the applicable Site Closure Criteria. The RWP was received by the NMOCD on April 4, 2022, and approved with the following conditions:

- "*Horizontal delineation of the releases will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts. Base and sidewalls confirmation samples must be collected and analyzed for parameters listed in Table I of 19.15.29.12 NMAC.*"
- *The OCD approves a confirmation sample size variance of up to but no more than 400 square feet per sample*."

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As previously described in the approved RWP, the Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to ground water and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

All potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used to determine the site characterization are included in **Figure 1A**, **Figure 1B**, and **Figure 1C** in **Appendix A**. Referenced well records are provided as **Appendix B**.

Based on the results from the desktop review detailed in the approved RWP, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria†
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg
TPH-Gasoline Range Organics (GRO) + TPH-Diesel Range Organics (DRO)	EPA 8021B	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

†*The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13*.

EXCAVATION SOIL SAMPLING ACTIVITIES

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Between October 6, 2023, and October 30, 2023, excavation activities were performed via mechanical equipment to address residual impacts, which resulted in two separate excavations. Excavation activities were directed by referencing delineation laboratory analytical results documented in the RWP and field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips.

Following the removal of impacted soil, Etech collected 5-point composite confirmation soil samples from the floors (FS01 through FS44) and sidewalls (SW01 through SW21) of the excavations at the approved sampling frequency of 400 square feet. The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. The samples were then placed into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech, Inc. in Farmington, New Mexico, for analysis of the COCs.

Approximately 4,380 cubic yards of impacted soil removed from the Site was transported to R360 Antelope Draw in Jal, New Mexico under WPX approved manifests. Upon receipt of final confirmation excavation soil samples results, the excavations were backfilled with clean, locally sourced soil and the Site was restored to “as close to its original state” as possible. The locations of confirmation excavation soil samples are shown in **Figure 2A** and **Figure 2B** in **Appendix A**. Photographic documentation of excavation and restoration activities is included in **Appendix C**.

EXCAVATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final confirmation excavation soil samples indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. As such, the confirmation excavation sidewall soil samples sufficiently defined the horizontal periphery of impacts. Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

CLOSURE REQUEST

Based on laboratory analytical results for final confirmation excavation soil samples, WPX believes that residual soil impacts associated with the four inadvertent releases have been excavated and removed from the Site. The remediation areas have been re-seeded with BLM Seed Mix #2 and hand-broadcasted to match vegetative conditions surrounding the Site. WPX also believes the completed remedial actions meet the requirements set forth in NMAC 19.15.29.13 regulations in order to be protective of human health, the environment and groundwater. As a result, NFA appears warranted at this time, and WPX requests Closure of this CRR associated with Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755, respectively.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or joseph@etechenv.com or Erick Herrera (432) 305-6416 or erick@etechenv.com. **Appendix G** provides correspondence email notification receipts associated with the subject release.

Sincerely,
Etech Environmental and Safety Solutions, Inc.

Erick Herrera
Staff Geologist

Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

Appendix A: Figure 1: Site Map
Figure 1A: Site Characterization Map – Groundwater
Figure 1B: Site Characterization Map – Surficial Receptors
Figure 1C: Site Characterization Map – Subsurface Receptors
Figure 2A: Excavation Soil Sample Locations
Figure 2B: Excavation Soil Sample Locations

Appendix B: Referenced Well Records

Appendix C: Photographic Logs

Appendix D: Tables

Appendix E: Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix F: NMOCD Notifications

Appendix G: Approved Remediation Work Plan

APPENDIX A

Figures

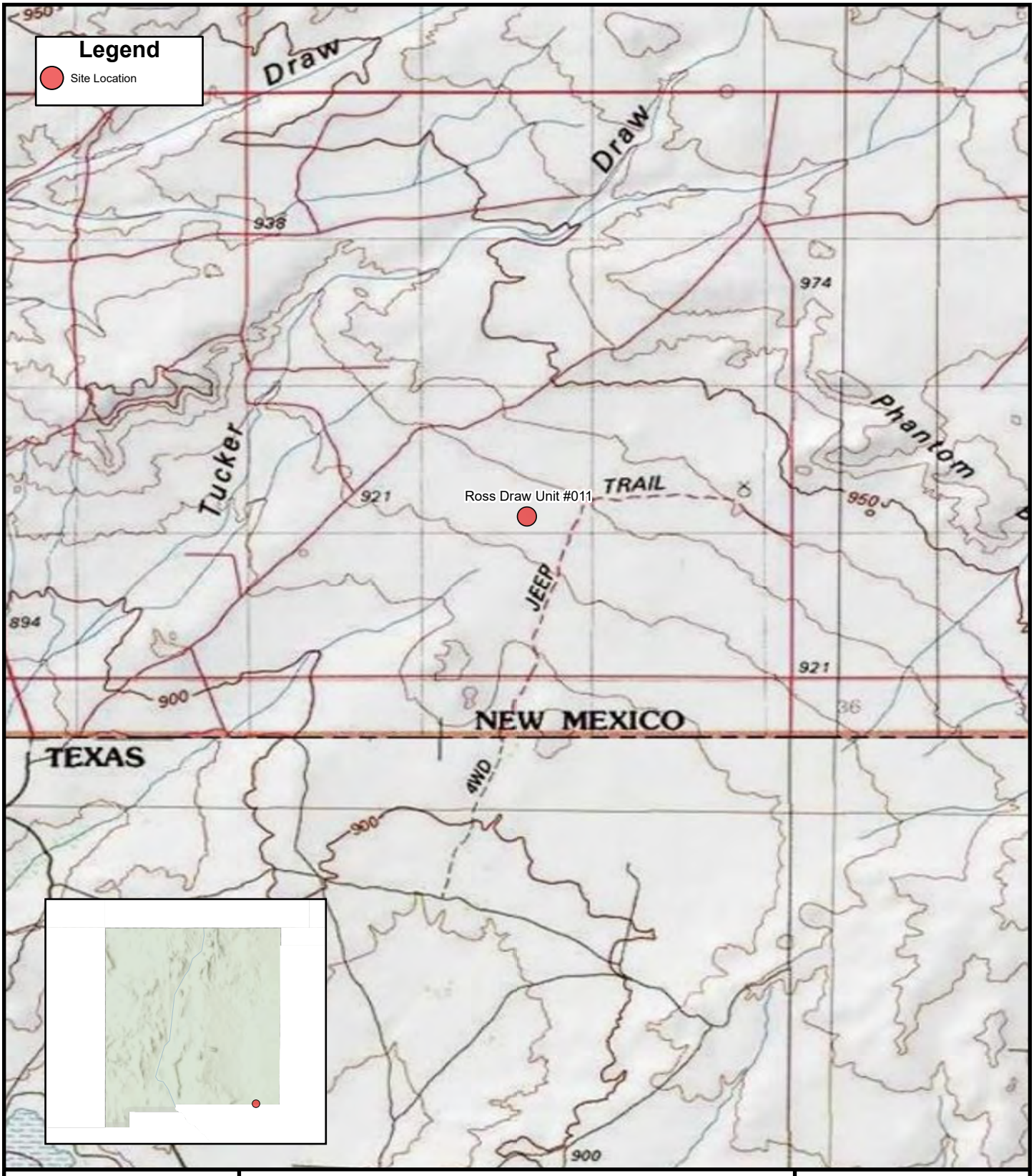


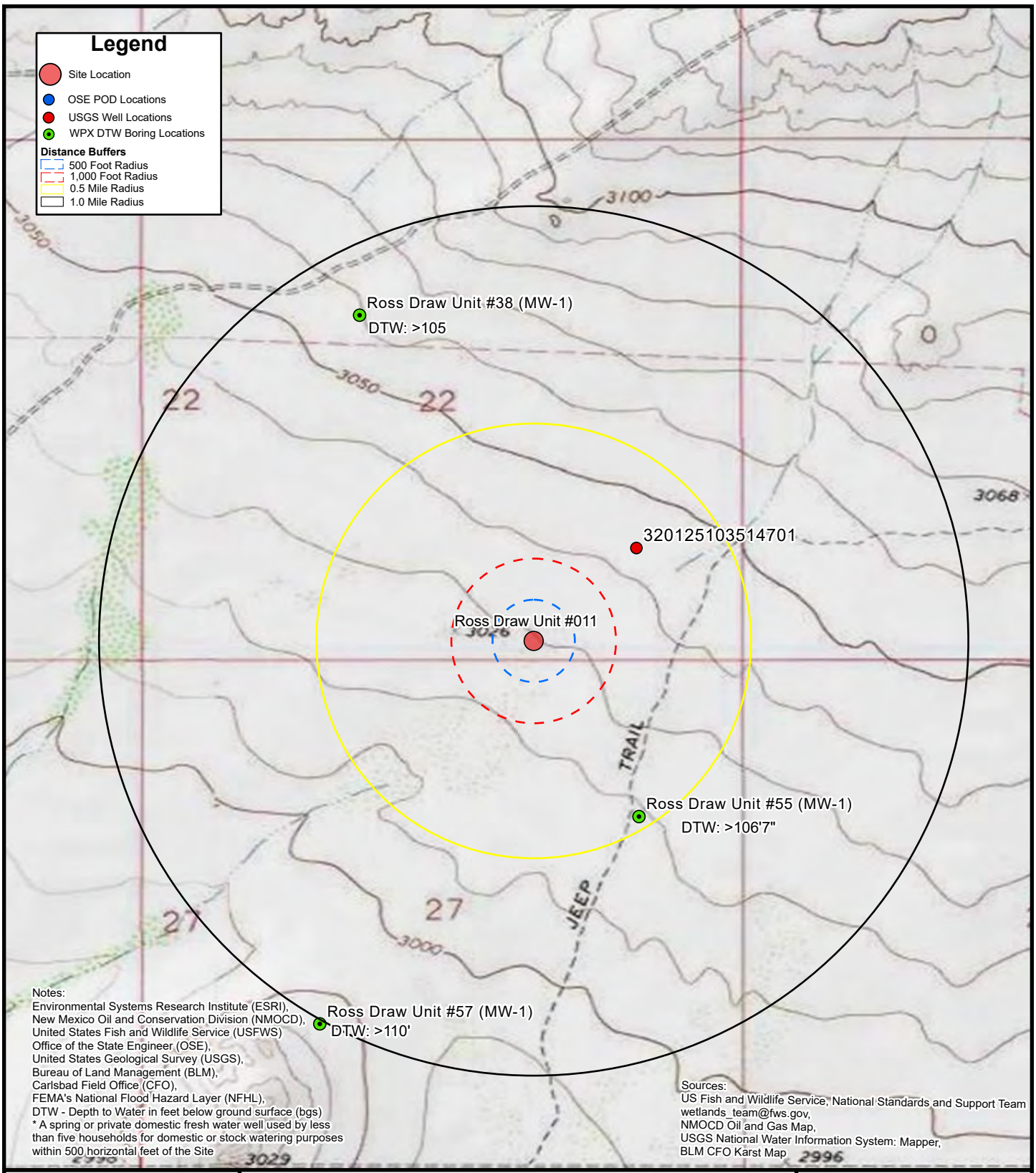
FIGURE 1

Site Location Map

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 2,500 5,000 Feet



Notes:
Environmental Systems Research Institute (ESRI),
New Mexico Oil and Conservation Division (NMOCD),
United States Fish and Wildlife Service (USFWS)
Office of the State Engineer (OSE),
United States Geological Survey (USGS),
Bureau of Land Management (BLM),
Carlsbad Field Office (CFO),
FEMA's National Flood Hazard Layer (NFHL),
DTW - Depth to Water in feet below ground surface (bgs)
* A spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes within 500 horizontal feet of the Site

Sources:
US Fish and Wildlife Service, National Standards and Support Team wetlands_team@fws.gov,
NMOCD Oil and Gas Map,
USGS National Water Information System: Mapper,
BLM CFO Karst Map

eTECH

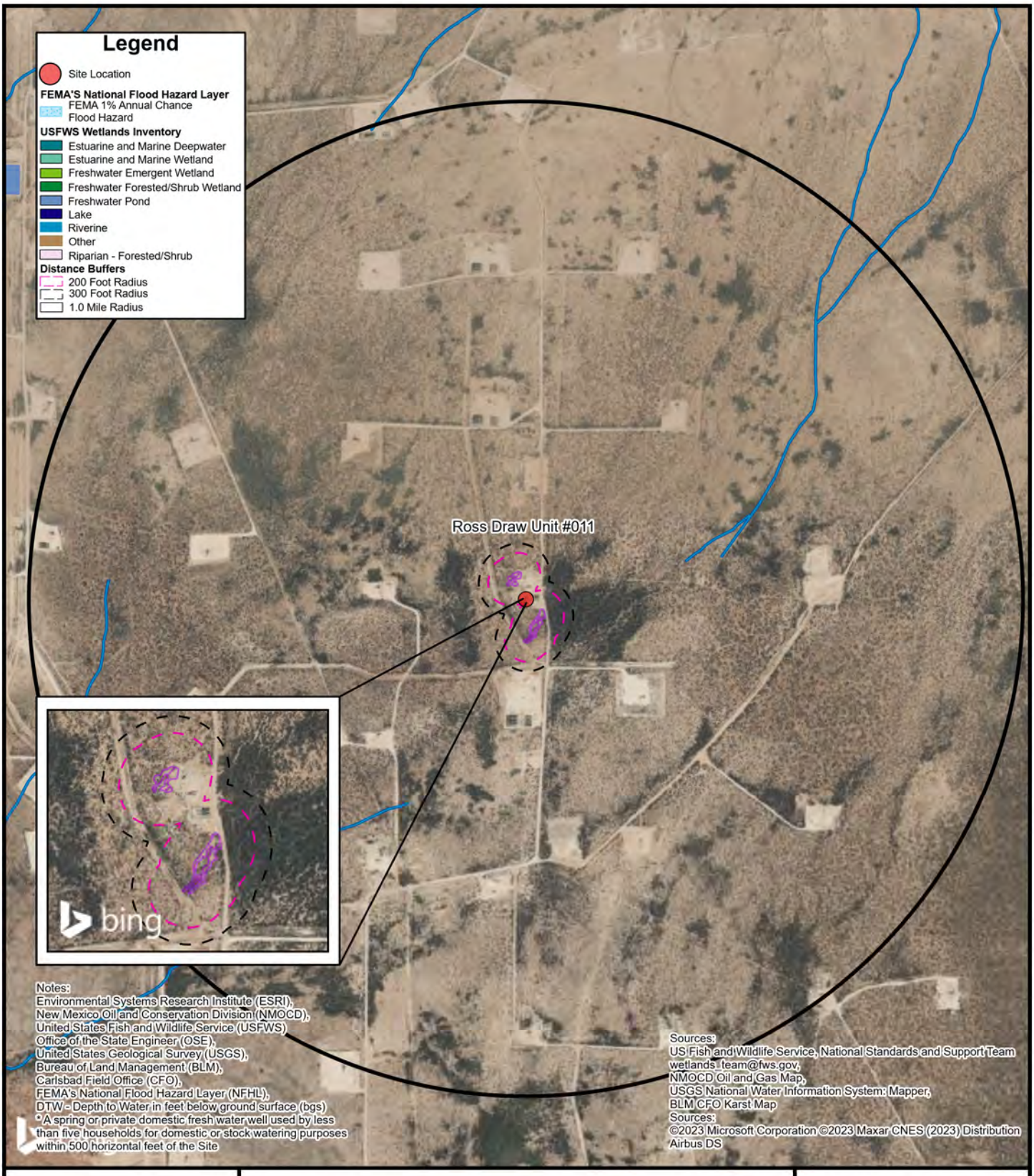
FIGURE 1A

Site Characterization Map
Groundwater

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 500 1,000 Feet



eTECH

FIGURE 1B

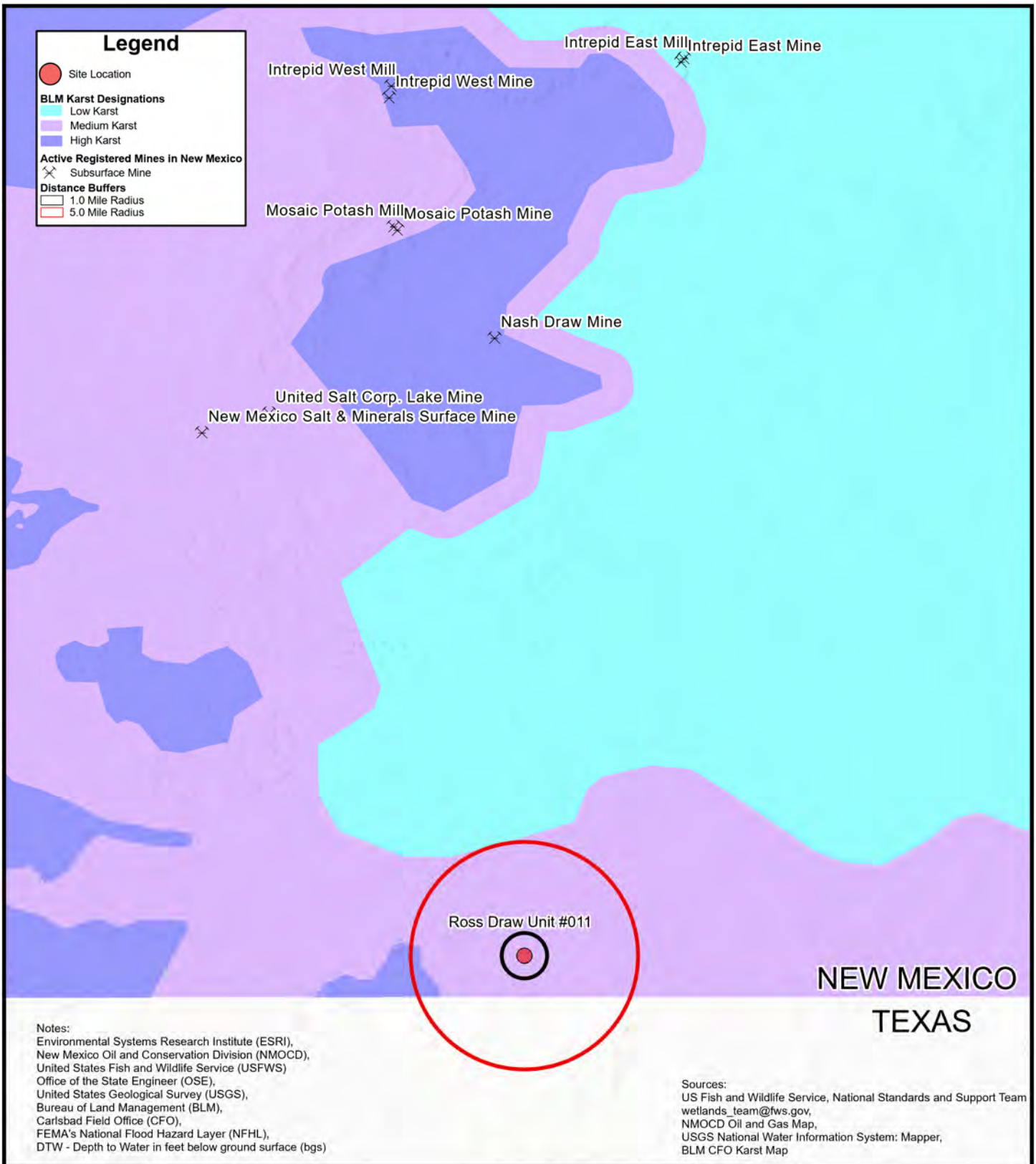
Site Characterization Map

Surficial Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 500 1,000 Feet



eTECH

FIGURE 1C

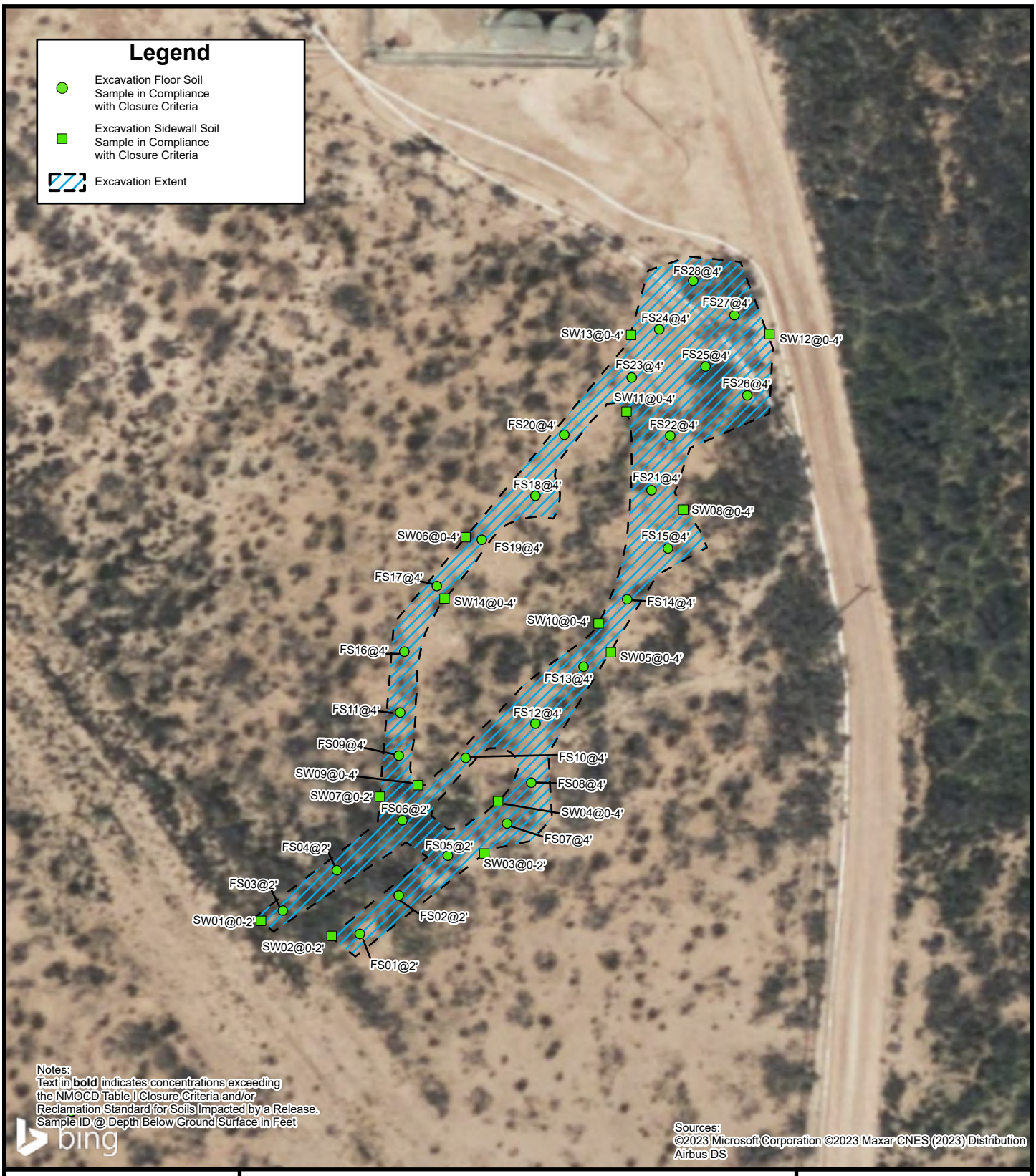
Site Characterization Map

Subsurface Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 12,500 25,000 Feet



eTECH

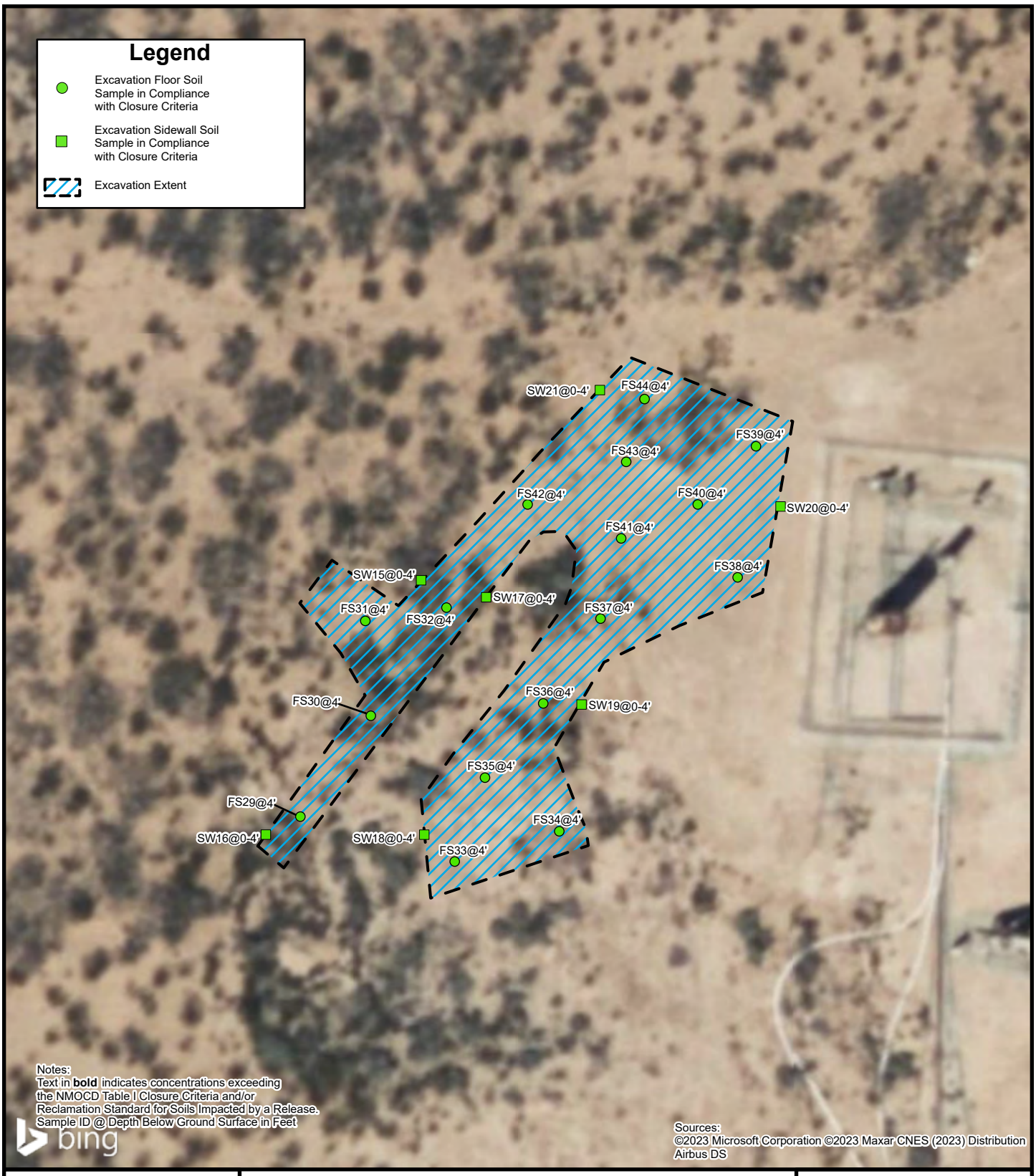
FIGURE 2A

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 32.5 65 Feet



eTECH

FIGURE 2B

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 20 40 Feet

APPENDIX B

Referenced Well Records

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

APPENDIX C

Photographic Logs

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 1 **Date: 10/26/2023**
Description: Southeastern view of excavation activities from the southern excavation.

Photograph 2 **Date: 10/26/2023**
Description: Southwestern view of excavation activities from the southern excavation.

Photograph 3 **Date: 10/26/2023**
Description: Northeastern view of excavation activities from the southern excavation.

Photograph 4 **Date: 10/26/2023**
Description: Northeastern view of excavation activities from the southern excavation.

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 1 **Date: 10/30/2023**
Description: Northwestern view of excavation activities from the northern excavation.

Photograph 2 **Date: 10/30/2023**
Description: Northwestern view of excavation activities from the northern excavation.

Photograph 3 **Date: 10/30/2023**
Description: Southwestern view of excavation activities from the northern excavation.

Photograph 4 **Date: 10/30/2023**
Description: Southwestern view of excavation activities from the northern excavation.

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 5 **Date: 11/28/2023**
Description: Northwestern view of restoration activities of the southern excavation.

Photograph 6 **Date: 11/28/2023**
Description: Southwestern view of restoration activities of the southern excavation.

Photograph 7 **Date: 11/28/2023**
Description: Southeast view of restoration activities of the northern excavation.

Photograph 8 **Date: 11/28/2023**
Description: Southwest view of restoration activities of the northern excavation.

APPENDIX D

Tables

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Soil Samples - Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and naPP2200728755										
FS01	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS02	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS03	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS04	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	24.1
FS05	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS06	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS07	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,260
FS08	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,180
FS09	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,290
FS10	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,350
FS11	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS12	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,270
FS13	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,490
FS14	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,370
FS15	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,410
FS16	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS17	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	935
FS18	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	383
FS19	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	429
FS20	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,220
FS21	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	466
FS22	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	422
FS23	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	984
FS24	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	957
FS25	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,230
FS26	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,990
FS27	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,210
FS28	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,220
FS29	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.6
FS30	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	37.9
FS31	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	262

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS32	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	506
FS33	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	503
FS34	10/27/2023	4	<0.0250	<0.0500	<20.0	58.3	<50.0	58.3	58.3	472
FS35	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,430
FS36	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	5,220
FS37	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,130
FS38	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	281
FS39	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,340
FS40	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,070
FS41	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,260
FS42	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,660
FS43	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,610
FS44	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,630
SW01	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW02	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW03	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW04	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.1
SW05	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.6
SW06	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.5
SW07	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	22.7
SW08	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	28.3
SW09	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	30.0
SW10	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	29.7
SW11	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW12	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	86.2
SW13	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	104
SW14	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	90.3
SW15	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.3
SW16	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW17	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	52.0
SW18	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	27.1

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
SW19	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	26.8
SW20	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	162
SW21	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<400

Notes:
bgs: below ground surface
mg/kg: milligrams per kilogram
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMOCD: New Mexico Oil Conservation Division NMAC: New Mexico Administrative Code
Text in "grey" represents excavated soil samples
Concentrations in bold exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard † for Soils Impacted by a Release
† The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas, to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310074
Job Number:	01058-0007
Received:	10/12/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/17/23

Date Reported: 10/17/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310074
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 2'	E310074-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS02 2'	E310074-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS03 2'	E310074-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS04 2'	E310074-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS05 2'	E310074-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS06 2'	E310074-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS01 2'

E310074-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS02 2'

E310074-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS03 2'

E310074-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS04 2'

E310074-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.2 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**24.1**	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS05 2'

E310074-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*96.6 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**23.9**	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS06 2'

E310074-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*100 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**23.9**	20.0	1	10/12/23	10/12/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.61*		*8.00*		*95.1*	*70-130*			
LCS (2341068-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.57*		*8.00*		*94.6*	*70-130*			
Matrix Spike Dup (2341068-MSD1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.64*		*8.00*		*95.6*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.7*	*70-130*			
LCS (2341068-BS2)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			
Matrix Spike Dup (2341068-MSD2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341072-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*51.7*		*50.0*		*103*	*50-200*			
LCS (2341072-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	248	25.0	250		99.2	38-132			
Surrogate: n-Nonane	*49.2*		*50.0*		*98.3*	*50-200*			
Matrix Spike (2341072-MS1)				**Source: E310074-06**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	*50.8*		*50.0*		*102*	*50-200*			
Matrix Spike Dup (2341072-MSD1)				**Source: E310074-06**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	101	38-132	0.193	20	
Surrogate: n-Nonane	*51.2*		*50.0*		*102*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341077-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	ND	20.0							
LCS (2341077-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2341077-MS1)				**Source: E310074-01**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	262	20.0	250	ND	105	80-120			
Matrix Spike Dup (2341077-MSD1)				**Source: E310074-01**					Prepared: 10/12/23 Analyzed: 10/13/23
Chloride	258	20.0	250	ND	103	80-120	1.37	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	**Bill To**
Project: Brushy Gathering Facility	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Collected by: Edyte Konan

Lab Use Only

Lab WO# E310074 | Job Number 01058-0007

TAT: 1D | 2D | 3D | Standard: 5 day TAT

EPA Program: CWA | SDWA | RCRA

State: NM | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
9:00	10.6.23	S	1	FS01	1	2'								x				
9:10	10.6.23	S	1	FS02	2	2'								x				
9:20	10.6.23	S	1	FS03	3	2'								x				
9:30	10.6.23	S	1	FS04	4	2'								x				
9:40	10.6.23	S	1	FS05	5	2'								x				
9:50	10.6.23	S	1	FS06	6	2'								x				
				10/10/23														

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/10/23	12:20	Michelle Garcia	10.10.23	1220
Michelle Garcia	10-11-23	1700	Andrew Martinez	10.11.23	1730
Andrew Martinez	10.11.23	2330	Caitlin Mason	10.12.23	8:25

Lab Use Only

Received on ice: (Y) / N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Project Information

Chain of Custody

Ross Draw unit #011

Client: WPX Energy Permian, LLC.	Bill To
Project: ~~Bruchy Gathering Facility~~	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
Collected by: Edyte Konan	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310074	01058-0007				5 day TAT		
							RCRA

State: NM x | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
9:00	10.6.23	S	1	FS01	1	2'								x				Corrected project name to match Project name on sample Contaners Per Client. 10.12.23 CM
9:10	10.6.23	S	1	FS02	2	2'								x				
9:20	10.6.23	S	1	FS03	3	2'								x				
9:30	10.6.23	S	1	FS04	4	2'								x				
9:40	10.6.23	S	1	FS05	5	2'								x				
9:50	10.6.23	S	1	FS06	6	2'								x				

10/10/23 [signature]

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/10/23	12:20	Michelle [signature]	10.10.23	1220
Michelle [signature]	10-11-23	1700	Andrew [signature]	10.11.23	1730
Andrew [signature]	10.11.23	2330	Caitlin Man[signature]	10.12.23	8:25

Lab Use Only

Received on ice: (Y) / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/12/2023 12:24:09PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310074
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:32	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310126
Job Number:	01058-0007
Received:	10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/25/23

Date Reported: 10/25/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310126
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/23 12:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 4'	E310126-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS08 4'	E310126-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS09 4'	E310126-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS10 4'	E310126-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS11 4'	E310126-05A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS12 4'	E310126-06A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS13 4'	E310126-07A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS14 4'	E310126-08A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS15 4'	E310126-09A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS16 4'	E310126-10A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS17 4'	E310126-11A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS18 4'	E310126-12A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS19 4'	E310126-13A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS20 4'	E310126-14A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS21 4'	E310126-15A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS22 4'	E310126-16A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS23 4'	E310126-17A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS24 4'	E310126-18A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS25 4'	E310126-19A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS26 4'	E310126-20A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS27 4'	E310126-21A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS28 4'	E310126-22A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS07 4'

E310126-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1260**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS08 4'

E310126-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.8 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1180**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS09 4'

E310126-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*101 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1290**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS10 4'

E310126-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1350**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS11 4'

E310126-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1240**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS12 4'

E310126-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1270**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS13 4'

E310126-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1490**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS14 4'

E310126-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1370**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS15 4'

E310126-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1410**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS16 4'

E310126-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1240**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS17 4'

E310126-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*96.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**935**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS18 4'

E310126-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**383**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS19 4'

E310126-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**429**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS20 4'

E310126-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.5 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**2220**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS21 4'

E310126-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*86.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*106 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**466**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS22 4'

E310126-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**422**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS23 4'

E310126-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**984**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS24 4'

E310126-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.7 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*97.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**957**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS25 4'

E310126-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*96.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1230**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS26 4'

E310126-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.9 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1990**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS27 4'

E310126-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.9 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
Surrogate: n-Nonane		*82.7 %*	*50-200*	*10/20/23*	*10/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342077
Chloride	**3210**	40.0	2	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS28 4'

E310126-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
Surrogate: n-Nonane		*84.7 %*	*50-200*	*10/20/23*	*10/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342077
Chloride	**3220**	40.0	2	10/19/23	10/20/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342065-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.49*		*8.00*		*93.7*	*70-130*			
LCS (2342065-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.49	0.0250	5.00		89.9	70-130			
Ethylbenzene	4.50	0.0250	5.00		90.1	70-130			
Toluene	4.62	0.0250	5.00		92.4	70-130			
o-Xylene	4.63	0.0250	5.00		92.6	70-130			
p,m-Xylene	9.33	0.0500	10.0		93.3	70-130			
Total Xylenes	14.0	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.51*		*8.00*		*93.8*	*70-130*			
Matrix Spike (2342065-MS1)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.39	0.0250	5.00	ND	87.7	54-133			
Ethylbenzene	4.39	0.0250	5.00	ND	87.7	61-133			
Toluene	4.51	0.0250	5.00	ND	90.1	61-130			
o-Xylene	4.51	0.0250	5.00	ND	90.3	63-131			
p,m-Xylene	9.08	0.0500	10.0	ND	90.8	63-131			
Total Xylenes	13.6	0.0250	15.0	ND	90.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.42*		*8.00*		*92.8*	*70-130*			
Matrix Spike Dup (2342065-MSD1)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.54	0.0250	5.00	ND	90.7	54-133	3.36	20	
Ethylbenzene	4.55	0.0250	5.00	ND	91.0	61-133	3.72	20	
Toluene	4.68	0.0250	5.00	ND	93.6	61-130	3.73	20	
o-Xylene	4.70	0.0250	5.00	ND	93.9	63-131	3.93	20	
p,m-Xylene	9.43	0.0500	10.0	ND	94.3	63-131	3.85	20	
Total Xylenes	14.1	0.0250	15.0	ND	94.2	63-131	3.87	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.47*		*8.00*		*93.4*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342066-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.66*		*8.00*		*95.8*	*70-130*			
LCS (2342066-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.21	0.0250	5.00		104	70-130			
Ethylbenzene	5.11	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.13	0.0250	5.00		103	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.71*		*8.00*		*96.3*	*70-130*			
Matrix Spike (2342066-MS1)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.19	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.10	0.0250	5.00	ND	102	61-133			
Toluene	5.16	0.0250	5.00	ND	103	61-130			
o-Xylene	5.11	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.70*		*8.00*		*96.2*	*70-130*			
Matrix Spike Dup (2342066-MSD1)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.39	0.0250	5.00	ND	108	54-133	3.75	20	
Ethylbenzene	5.29	0.0250	5.00	ND	106	61-133	3.70	20	
Toluene	5.36	0.0250	5.00	ND	107	61-130	3.82	20	
o-Xylene	5.31	0.0250	5.00	ND	106	63-131	3.84	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	3.91	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	3.89	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.72*		*8.00*		*96.5*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342065-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.24*		*8.00*		*90.5*	*70-130*			
LCS (2342065-BS2)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.36*		*8.00*		*92.0*	*70-130*			
Matrix Spike (2342065-MS2)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.29*		*8.00*		*91.1*	*70-130*			
Matrix Spike Dup (2342065-MSD2)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.7	70-130	10.2	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.45*		*8.00*		*93.1*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342066-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.17*		*8.00*		*89.6*	*70-130*			
LCS (2342066-BS2)									Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	46.7	20.0	50.0		93.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.05*		*8.00*		*88.1*	*70-130*			
Matrix Spike (2342066-MS2)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	45.5	20.0	50.0	ND	91.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.06*		*8.00*		*88.3*	*70-130*			
Matrix Spike Dup (2342066-MSD2)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	46.4	20.0	50.0	ND	92.9	70-130	2.03	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.20*		*8.00*		*90.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342068-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*50.7*		*50.0*		*101*	*50-200*			
LCS (2342068-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	242	25.0	250		96.8	38-132			
Surrogate: n-Nonane	*49.6*		*50.0*		*99.2*	*50-200*			
Matrix Spike (2342068-MS1)				**Source: E310126-05**					Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	291	25.0	250	ND	116	38-132			
Surrogate: n-Nonane	*57.5*		*50.0*		*115*	*50-200*			
Matrix Spike Dup (2342068-MSD1)				**Source: E310126-05**					Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	8.64	20	
Surrogate: n-Nonane	*53.1*		*50.0*		*106*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342098-BLK1)									Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.9*		*50.0*		*87.7*	*50-200*			
LCS (2342098-BS1)									Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	226	25.0	250		90.4	38-132			
Surrogate: n-Nonane	*44.2*		*50.0*		*88.4*	*50-200*			
Matrix Spike (2342098-MS1)				**Source: E310184-02**					Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.0	38-132			
Surrogate: n-Nonane	*41.6*		*50.0*		*83.2*	*50-200*			
Matrix Spike Dup (2342098-MSD1)				**Source: E310184-02**					Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.1	38-132	0.0528	20	
Surrogate: n-Nonane	*42.6*		*50.0*		*85.3*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342076-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	ND	20.0							
LCS (2342076-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	241	20.0	250		96.5	90-110			
Matrix Spike (2342076-MS1)				**Source: E310126-03**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1600	20.0	250	1290	125	80-120			M1
Matrix Spike Dup (2342076-MSD1)				**Source: E310126-03**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1530	20.0	250	1290	98.0	80-120	4.27	20	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342077-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	ND	20.0							
LCS (2342077-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2342077-MS1)				**Source: E310127-01**					Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	688	20.0	250	253	174	80-120			M1
Matrix Spike Dup (2342077-MSD1)				**Source: E310127-01**					Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	732	20.0	250	253	192	80-120	6.32	20	M1

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/23 12:15

M1	Matrix spike recovery was above acceptance limits. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**	Lab Use Only
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO#: E310126 / Job Number: 9058.0007
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	TAT: 1D / 2D / 3D / Standard — 5 day TAT
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	EPA Program: CWA / SDWA / RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502	State: NM x / CO / UT / AZ / TX
Phone: 832-541-7719	Email: jim.raley@dvn.com	
Email: Devon-team@etechenv.com	WO: 21153712	
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
9:00	10.16.23	S	1	FS07	1	4'								X				
9:10	10.16.23	S	1	FS08	2	4'								X				
9:20	10.16.23	S	1	FS09	3	4'								X				
9:30	10.16.23	S	1	FS10	4	4'								X				
9:40	10.16.23	S	1	FS11	5	4'								X				
9:50	10.16.23	S	1	FS12	6	4'								X				
10:00	10.16.23	S	1	FS13	7	4'								X				
10:10	10.16.23	S	1	FS14	8	4'								X				
10:20	10.16.23	S	1	FS15	9	4'								X				
10:30	10.16.23	S	1	FS16	10	4'								X				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1210	[signature]	10.18.23	1210
[signature]	10/18/23	1745	[signature] Musso	10.18.23	1800
[signature] Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Client: WPX Energy Permian, LLC.	**Bill To**	Lab Use Only: Lab WO# E310126; Job Number 01058-0007	TAT: 1D / 2D / 3D / Standard — 5 day TAT
Project: ROSS DRAW UNIT #011	Attention: Jim Raley		EPA Program: CWA / SDWA / RCRA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220		State: NM x / CO / UT / AZ / TX
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502		
Phone: 832-541-7719	Email: jim.raley@dvn.com		
Email: Devon-team@etechenv.com	WO: 21153712		
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755		

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:40	10.16.23	S	1	FS17	11	4'								x				
10:50	10.16.23	S	1	FS18	12	4'								x				
11:00	10.16.23	S	1	FS19	13	4'								x				
11:10	10.16.23	S	1	FS20	14	4'								x				
11:20	10.16.23	S	1	FS21	15	4'								x				
11:30	10.16.23	S	1	FS22	16	4'								x				
11:40	10.16.23	S	1	FS23	17	4'								x				
11:50	10.16.23	S	1	FS24	18	4'								x				
12:00	10.16.23	S	1	FS25	19	4'								x				
12:10	10.16.23	S	1	FS26	20	4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1200	[signature]	10.18.23	1210
[signature]	10.18.23	1745	Andrew Musso	10.18.23	1800
Andrew Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only — Received on ice: (Y) / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Client: WPX Energy Permian, LLC.	**Bill To**
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310126	01058-0007				5 day TAT		
							RCRA

State: NM x | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:20	10.16.23	S	1	FS27	21	4'								X				
12:30	10.16.23	S	1	FS28	22	4'								X				

10/18/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1210	[signature]	10.18.23	1210
[signature]	10.18.23	1745	Andrew Musso	10.18.23	1800
Andrew Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ______

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, **v** - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/19/2023 12:10:56PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310126
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:49	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310296
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/3/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/3/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310296
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS29 4'	E310296-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS30 4'	E310296-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS31 4'	E310296-03A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS32 4'	E310296-04A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS33 4'	E310296-05A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS34 4'	E310296-06A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS35 4'	E310296-07A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS36 4'	E310296-08A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS37 4'	E310296-09A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS38 4'	E310296-10A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS39 4'	E310296-11A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS40 4'	E310296-12A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS29 4'

E310296-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.1 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**39.6**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS30 4'

E310296-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*92.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**37.9**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS31 4'

E310296-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.8 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.8 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**262**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS32 4'

E310296-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.6 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*90.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**506**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS33 4'

E310296-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**503**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS34 4'

E310296-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	**58.3**	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*92.5 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**472**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS35 4'

E310296-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.6 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*86.1 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**1430**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS36 4'

E310296-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.8 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*88.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**5220**	100	5	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS37 4'

E310296-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.9 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*89.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**2130**	400	20	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS38 4'

E310296-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*86.5 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**281**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS39 4'

E310296-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*90.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**3340**	400	20	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS40 4'

E310296-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.7 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.6 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**3070**	100	5	11/02/23	11/03/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344026-BLK1)									Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.96*		*8.00*		*99.5*	*70-130*			
LCS (2344026-BS1)									Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.60	0.0250	5.00		92.0	70-130			
Ethylbenzene	4.74	0.0250	5.00		94.8	70-130			
Toluene	4.83	0.0250	5.00		96.6	70-130			
o-Xylene	4.89	0.0250	5.00		97.9	70-130			
p,m-Xylene	9.78	0.0500	10.0		97.8	70-130			
Total Xylenes	14.7	0.0250	15.0		97.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.10*		*8.00*		*101*	*70-130*			
Matrix Spike (2344026-MS1)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.57	0.0250	5.00	ND	91.4	54-133			
Ethylbenzene	4.71	0.0250	5.00	ND	94.2	61-133			
Toluene	4.80	0.0250	5.00	ND	95.9	61-130			
o-Xylene	4.87	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.71	0.0500	10.0	ND	97.1	63-131			
Total Xylenes	14.6	0.0250	15.0	ND	97.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*8.21*		*8.00*		*103*	*70-130*			
Matrix Spike Dup (2344026-MSD1)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.50	0.0250	5.00	ND	89.9	54-133	1.61	20	
Ethylbenzene	4.66	0.0250	5.00	ND	93.3	61-133	1.02	20	
Toluene	4.74	0.0250	5.00	ND	94.8	61-130	1.20	20	
o-Xylene	4.82	0.0250	5.00	ND	96.3	63-131	1.07	20	
p,m-Xylene	9.63	0.0500	10.0	ND	96.3	63-131	0.815	20	
Total Xylenes	14.4	0.0250	15.0	ND	96.3	63-131	0.900	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.15*		*8.00*		*102*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344026-BLK1)									Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.20*		*8.00*		*90.1*	*70-130*			
LCS (2344026-BS2)									Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	42.6	20.0	50.0		85.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.31*		*8.00*		*91.4*	*70-130*			
Matrix Spike (2344026-MS2)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	42.6	20.0	50.0	ND	85.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.30*		*8.00*		*91.3*	*70-130*			
Matrix Spike Dup (2344026-MSD2)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.5	70-130	6.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.37*		*8.00*		*92.1*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344079-BLK1)									Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	ND	20.0							
LCS (2344079-BS1)									Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2344079-MS1)				**Source: E310296-02**					Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	289	20.0	250	37.9	101	80-120			
Matrix Spike Dup (2344079-MSD1)				**Source: E310296-02**					Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	284	20.0	250	37.9	98.5	80-120	1.73	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 2

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To	
Attention: Jim Raley	
Address: 5315 Buena Vista Dr.	
City, State, Zip: Carlsbad, NM, 88220	
Phone: 575-885-7502	
Email: jim.raley@dvn.com	
WBS/WO: MM-155117.AL.RNM	
Incident ID: nMNMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Lab Use Only	
Lab WO#	Job Number
E310296	01058-0007

TAT				EPA Program	
1D	2D	3D	Standard	CWA	SDWA
			5 day TAT		
					RCRA

Analysis and Method

State: NM | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
12:00	10.27.23	S	1	FS29	1	4'						X		
12:10	10.27.23	S	1	FS30	2	4'						X		
12:20	10.27.23	S	1	FS31	3	4'						X		
12:30	10.27.23	S	1	FS32	4	4'						X		
12:40	10.27.23	S	1	FS33	5	4'						X		
12:50	10.27.23	S	1	FS34	6	4'						X		
13:00	10.27.23	S	1	FS35	7	4'						X		
13:10	10.27.23	S	1	FS36	8	4'						X		
13:20	10.27.23	S	1	FS37	9	4'						X		
13:30	10.27.23	S	1	FS38	10	4'						X		

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/27/23	15:00	Michelle Gonzales	10-27-23	15:00
Michelle Gonzales	10-27-23	1615		10/30/23	8:30

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only	TAT	EPA Program
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E310296	Job Number 01058-0007	1D 2D 3D Standard: 5 day TAT	CWA SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.				RCRA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method		State: NM CO UT AZ TX
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502			
Phone: 832-541-7719	Email: jim.raley@dvn.com			
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM			
Collected by: Edyte Konan	Incident ID: nMNMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755			

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
13:40	10.27.23	S	1	FS39	11	4'						X		
13:50	10.27.23	S	1	FS40	12	4'						X		

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615	[signature]	10.30.23	8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/30/2023 12:47:19PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310296
Phone:	(539) 573-4018	Date Logged In:	10/30/23 11:25	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

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Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310308
Job Number:	01058-0007
Received:	11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310308
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS41 4'	E310308-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS42 4'	E310308-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS43 4'	E310308-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS44 4'	E310308-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS41 4'

E310308-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.9 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.9 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**3260**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS42 4'

E310308-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*113 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**2660**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS43 4'

E310308-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*112 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**1610**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS44 4'

E310308-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*106 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**1630**	400	20	11/04/23	11/06/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344083-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*53.0*		*50.0*		*106*	*50-200*			
LCS (2344083-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	247	25.0	250		99.0	38-132			
Surrogate: n-Nonane	*53.7*		*50.0*		*107*	*50-200*			
Matrix Spike (2344083-MS1)				**Source: E310308-04**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	*55.4*		*50.0*		*111*	*50-200*			
Matrix Spike Dup (2344083-MSD1)				**Source: E310308-04**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	257	25.0	250	ND	103	38-132	0.736	20	
Surrogate: n-Nonane	*54.7*		*50.0*		*109*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

01058-0007 HR

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only		TAT	EPA Program
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO#	Job Number	1D / 2D / 3D / Standard	CWA / SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	E310308	~~01100-0021~~	5 day TAT	
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method			RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502				State
Phone: 832-541-7719	Email: jim.raley@dvn.com				NM / CO / UT / AZ / TX
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM				x (NM)
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.30.23	S	1	FS41	1	4'								x				
10:10	10.30.23	S	1	FS42	2	4'								x				
10:20	10.30.23	S	1	FS43	3	4'								x				
10:30	10.30.23	S	1	FS44	4	4'								x				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		Michelle Gonzales	10/31/23	1045
Michelle Gonzales	10-31-23	1545	[signature] Musso	10.31.23	1730
[signature] Musso	10.31.23	2400	Lacey Roeder	11/1/23	8:30

Lab Use Only
Received on ice: (Y) / N
T1 ______ T2 ______ T3 ______
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 3:57:30PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310308
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:02	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310073
Job Number:	01058-0007
Received:	10/12/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
1/3/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 1/3/24

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310073
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0-2'	E310073-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW02 0-2'	E310073-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW03 0-2'	E310073-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW04 0-4'	E310073-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW05 0-4'	E310073-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW06 0-4'	E310073-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW07 0-2'	E310073-07A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW08 0-4'	E310073-08A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW09 0-4'	E310073-09A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW10 0-4'	E310073-10A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW01 0-2'

E310073-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.7 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*76.5 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW02 0-2'

E310073-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.0 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*69.8 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW03 0-2'

E310073-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*74.2 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW04 0-4'

E310073-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*69.5 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**20.1**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW05 0-4'

E310073-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*79.1 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**23.6**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW06 0-4'

E310073-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*75.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**20.5**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW07 0-2'

E310073-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*75.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**22.7**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW08 0-4'

E310073-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*77.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**28.3**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW09 0-4'

E310073-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*79.3 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**30.0**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW10 0-4'

E310073-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.7 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*76.3 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**29.7**	20.0	1	10/12/23	10/13/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.61*		*8.00*		*95.1*	*70-130*			
LCS (2341068-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.57*		*8.00*		*94.6*	*70-130*			
Matrix Spike Dup (2341068-MSD1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.64*		*8.00*		*95.6*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.7*	*70-130*			
LCS (2341068-BS2)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			
Matrix Spike Dup (2341068-MSD2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341066-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*42.0*		*50.0*		*84.0*	*50-200*			
LCS (2341066-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.5	38-132			
Surrogate: n-Nonane	*40.2*		*50.0*		*80.4*	*50-200*			
Matrix Spike (2341066-MS1)				**Source: E310070-04**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	211	25.0	250	ND	84.4	38-132			
Surrogate: n-Nonane	*37.7*		*50.0*		*75.5*	*50-200*			
Matrix Spike Dup (2341066-MSD1)				**Source: E310070-04**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	206	25.0	250	ND	82.3	38-132	2.54	20	
Surrogate: n-Nonane	*36.3*		*50.0*		*72.5*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341076-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	ND	20.0							
LCS (2341076-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	246	20.0	250		98.4	90-110			
Matrix Spike (2341076-MS1)				**Source: E310065-21**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	249	20.0	250	ND	99.4	80-120			
Matrix Spike Dup (2341076-MSD1)				**Source: E310065-21**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	252	20.0	250	ND	101	80-120	1.37	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**
Project: Brushy Gathering Facility	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
Collected by: Edyte Konan	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310073	01058-0007				5 day TAT		
							RCRA

State: NM (x) | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.6.23	S	1	SW01	1	0-2'								x				
10:10	10.6.23	S	1	SW02	2	0-2'								x				
10:20	10.6.23	S	1	SW03	3	0-2'								x				
10:30	10.6.23	S	1	SW04	4	0-4'								x				
10:40	10.6.23	S	1	SW05	5	0-4'								x				
10:50	10.6.23	S	1	SW06	6	0-4'								x				
11:00	10.6.23	S	1	SW07	7	0-2'								x				
11:10	10.6.23	S	1	SW08	8	0-4'								x				
11:20	10.6.23	S	1	SW09	9	0-4'								x				
11:30	10.6.23	S	1	SW10	10	0-4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/10/23	12:20	Michelle Gonzales	10-10-23	1220
Michelle Gonzales	10-11-23	1700	[signature]	10.11.23	1730
[signature]	10.11.23	2330	Caitlin Mars	10.12.23	8:25

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Project Information

Chain of Custody

Ross Draw unit #011

Project Information	Bill To	Lab Use Only	
Client: WPX Energy Permian, LLC.		Lab WO# E310073	Job Number 01058·0007
Project: ~~Brushy Gathering Facility~~	Attention: Jim Raley		
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220		
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502		
Phone: 832-541-7719	Email: jim.raley@dvn.com		
Email: Devon-team@etechenv.com	WO: 21153712		
Collected by: Edyte Konan	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755		

TAT: 1D | 2D | 3D | Standard (5 day TAT)

EPA Program: CWA | SDWA | RCRA

State: NM (x) | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.6.23	S	1	SW01	1	0-2'								x				Corrected project name to match project name on Sample Containers. 10·12·23 cm
10:10	10.6.23	S	1	SW02	2	0-2'								x				
10:20	10.6.23	S	1	SW03	3	0-2'								x				
10:30	10.6.23	S	1	SW04	4	0-4'								x				
10:40	10.6.23	S	1	SW05	5	0-4'								x				
10:50	10.6.23	S	1	SW06	6	0-4'								x				
11:00	10.6.23	S	1	SW07	7	0-2'								x				
11:10	10.6.23	S	1	SW08	8	0-4'								x				
11:20	10.6.23	S	1	SW09	9	0-4'								x				
11:30	10.6.23	S	1	SW10	10	0-4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/10/23	12:20	Michelle Gonzales	10·10·23	1220
Michelle Gonzales	10·11·23	1700	Andrew Musso	10·11·23	1730
Andrew Musso	10·11·23	2330	Caitlin Mars	10·12·23	8:25

Lab Use Only

Received on ice: (Y) / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/12/2023 12:15:29PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310073
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:30	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310125
Job Number:	01058-0007
Received:	10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/23/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/23/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310125
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW11 0-4'	E310125-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW12 0-4'	E310125-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW13 0-4'	E310125-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW14 0-4'	E310125-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW11 0-4'

E310125-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.1 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*88.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	ND	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW12 0-4'

E310125-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.0 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*88.1 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**86.2**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW13 0-4'

E310125-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.8 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*86.5 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**104**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW14 0-4'

E310125-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.7 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*85.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**90.3**	20.0	1	10/19/23	10/19/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342062-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.52*		*8.00*		*94.0*	*70-130*			
LCS (2342062-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.45	0.0250	5.00		89.1	70-130			
Ethylbenzene	4.54	0.0250	5.00		90.7	70-130			
Toluene	4.54	0.0250	5.00		90.8	70-130			
o-Xylene	4.58	0.0250	5.00		91.5	70-130			
p,m-Xylene	9.28	0.0500	10.0		92.8	70-130			
Total Xylenes	13.9	0.0250	15.0		92.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.51*		*8.00*		*93.9*	*70-130*			
Matrix Spike (2342062-MS1)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.74	0.0250	5.00	ND	94.8	54-133			
Ethylbenzene	4.84	0.0250	5.00	ND	96.7	61-133			
Toluene	4.84	0.0250	5.00	ND	96.9	61-130			
o-Xylene	4.86	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.86	0.0500	10.0	ND	98.6	63-131			
Total Xylenes	14.7	0.0250	15.0	ND	98.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.50*		*8.00*		*93.8*	*70-130*			
Matrix Spike Dup (2342062-MSD1)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.66	0.0250	5.00	ND	93.2	54-133	1.71	20	
Ethylbenzene	4.76	0.0250	5.00	ND	95.2	61-133	1.59	20	
Toluene	4.76	0.0250	5.00	ND	95.1	61-130	1.83	20	
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131	1.95	20	
p,m-Xylene	9.70	0.0500	10.0	ND	97.0	63-131	1.65	20	
Total Xylenes	14.5	0.0250	15.0	ND	96.5	63-131	1.75	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.45*		*8.00*		*93.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342062-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.16*		*8.00*		*89.4*	*70-130*			
LCS (2342062-BS2)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.0	20.0	50.0		92.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			
Matrix Spike (2342062-MS2)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	50.2	20.0	50.0	ND	100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.41*		*8.00*		*92.6*	*70-130*			
Matrix Spike Dup (2342062-MSD2)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.0	20.0	50.0	ND	92.0	70-130	8.72	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342064-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.9*		*50.0*		*91.7*	*50-200*			
LCS (2342064-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	250	25.0	250		100	38-132			
Surrogate: n-Nonane	*46.5*		*50.0*		*93.0*	*50-200*			
Matrix Spike (2342064-MS1)				**Source: E310122-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	*50.4*		*50.0*		*101*	*50-200*			
Matrix Spike Dup (2342064-MSD1)				**Source: E310122-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	2.44	20	
Surrogate: n-Nonane	*49.3*		*50.0*		*98.6*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342075-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	ND	20.0							
LCS (2342075-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	256	20.0	250		103	90-110			
Matrix Spike (2342075-MS1)				**Source: E310123-05**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1930	20.0	250	1770	64.8	80-120			M4
Matrix Spike Dup (2342075-MSD1)				**Source: E310123-05**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1900	20.0	250	1770	52.3	80-120	1.64	20	M4

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310125	01058-0007				5 day TAT		
							RCRA

State				
NM	CO	UT	AZ	TX
x				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:40	10.16.23	S	1	SW11	1	0-4'								x				
12:50	10.16.23	S	1	SW12	2	0-4'								x				
13:00	10.16.23	S	1	SW13	3	0-4'								x				
13:10	10.16.23	S	1	SW14	4	0-4'								x				

10/18/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1210	[signature]	10/18/23	1210
[signature]	10/18/23	1745	[signature]	10.18.23	1800
[signature]	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/19/2023 12:05:17PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310125
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:48	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310293
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310293
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW15 0-4'	E310293-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
SW16 0-4'	E310293-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

SW15 0-4'

E310293-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.3 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.3 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		*85.7 %*	*50-200*	*11/02/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**39.3**	20.0	1	11/02/23	11/02/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

SW16 0-4'

E310293-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.4 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.4 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		*90.5 %*	*50-200*	*11/02/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	ND	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344070-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.5*		*50.0*		*90.9*	*50-200*			
LCS (2344070-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.6	38-132			
Surrogate: n-Nonane	*40.0*		*50.0*		*80.0*	*50-200*			
Matrix Spike (2344070-MS1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	225	25.0	250	ND	89.9	38-132			
Surrogate: n-Nonane	*41.7*		*50.0*		*83.4*	*50-200*			
Matrix Spike Dup (2344070-MSD1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	219	25.0	250	ND	87.6	38-132	2.55	20	
Surrogate: n-Nonane	*41.8*		*50.0*		*83.5*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Project Information	Bill To	Lab Use Only		TAT				EPA Program	
Client: WPX Energy Permian, LLC.									
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	E310293	01058-0007				5 day TAT		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method							RCRA
City, State, Zip Odessa,TX, 79765	Phone: 575-885-7502								
Phone: 832-541-7719	Email: jim.raley@dvn.com							State	
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM							NM x	CO / UT / AZ / TX
Collected by: Edyte Konan	Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755								

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
14:00	10.27.23	S	1	SW15	1	0-4'								X				
14:10	10.27.23	S	1	SW16	2	0-4'								X				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615	[signature]	10-30-23	8:30

Lab Use Only

Received on Ice: (Y)/ N

T1 ________ T2 ________ T3 ________

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 11:00:28AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310293
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:57	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310292
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*87.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**52.0**	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To	Lab Use Only		TAT				EPA Program	
Attention: Jim Raley	Lab WO# E310292	Job Number 01058.0007	1D	2D	3D	Standard	CWA	SDWA
Address: 5315 Buena Vista Dr.						5 day TAT		
City, State, Zip: Carlsbad, NM, 88220	Analysis and Method							RCRA
Phone: 575-885-7502								
Email: jim.raley@dvn.com							State	
WBS/WO: MM-155117.AL.RNM							NM CO UT AZ TX	
Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755							x	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
14:20	10.27.23	S	1	SW17	1	0-4'								X				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615		10.30.23	8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: Y / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310309
Job Number:	01058-0007
Received:	11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310309
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW18 0-4'	E310309-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW19 0-4'	E310309-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW20 0-4'	E310309-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW21 0-4	E310309-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW18 0-4'

E310309-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**27.1**	20.0	1	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW19 0-4'

E310309-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*109 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**26.8**	20.0	1	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW20 0-4'

E310309-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*94.6 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**162**	20.0	1	11/04/23	11/07/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW21 0-4

E310309-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*103 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*103 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*90.7 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	ND	400	20	11/04/23	11/07/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344103-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*49.2*		*50.0*		*98.3*	*50-200*			
LCS (2344103-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	241	25.0	250		96.4	38-132			
Surrogate: n-Nonane	*48.1*		*50.0*		*96.2*	*50-200*			
Matrix Spike (2344103-MS1)				**Source: E311018-07**					Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	275	25.0	250	ND	110	38-132			
Surrogate: n-Nonane	*54.6*		*50.0*		*109*	*50-200*			
Matrix Spike Dup (2344103-MSD1)				**Source: E311018-07**					Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132	0.421	20	
Surrogate: n-Nonane	*53.9*		*50.0*		*108*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

01058-0007 4R

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only		TAT				EPA Program	
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	E310309	~~[illegible]~~				5 day TAT		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method							RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502								
Phone: 832-541-7719	Email: jim.raley@dvn.com							State	
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM							NM x	CO / UT / AZ / TX
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755								

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:40	10.30.23	S	1	SW18	1	0-4'								x				
10:50	10.30.23	S	1	SW19	2	0-4'								x				
11:00	10.30.23	S	1	SW20	3	0-4'								x				
11:10	10.30.23	S	1	SW21	4	0-4'								x				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		Michelle Gonzales	10-31-23	1045
Michelle Gonzales	10-31-23	1545	[signature]	10.31.23	1730
[signature]	10.31.23	2400	[signature]	11/1/23	8:30

Lab Use Only

Received on ice: (Y) / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 4:00:08PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310309
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:20	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*87.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**52.0**	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information	Bill To	Lab Use Only		TAT	EPA Program
Client: WPX Energy Permian, LLC.	Attention: Jim Raley	Lab WO# E310292	Job Number 01058-0007	1D / 2D / 3D / Standard: 5 day TAT	CWA / SDWA / RCRA
Project: ROSS DRAW UNIT #011	Address: 5315 Buena Vista Dr.	Analysis and Method			State: NM (x) / CO / UT / AZ / TX
Project Manager: Gilbert Moreno	City, State, Zip: Carlsbad, NM, 88220				
Address: 13000 W County Rd 100	Phone: 575-885-7502				
City, State, Zip_Odessa,TX, 79765	Email: jim.raley@dvn.com				
Phone: 832-541-7719	WBS/WO: MM-155117.AL.RNM				
Email: Devon-team@etechenv.com	Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755				
Collected by: Edyte Konan					

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
14:20	10.27.23	S	1	SW17	1	0-4'								X				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615	[signature]	10.30.23	8:30

Lab Use Only
Received on Ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

APPENDIX F

NMOCD Notifications

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Monday, October 2, 2023 2:48 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Erick Herrera <erick@etechenv.com>
Sent: Monday, October 2, 2023 12:40 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 5th through October 6th, 2023:

Proposed Date: October 5, 2023, October 6, 2023.
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thank you,

Erick Herrera

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 11, 2023 5:15 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 11, 2023 3:33 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 16th through October 20th, 2023:

Proposed Date: October 16, 20023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 34
Incident Number: nAPP2326833391
API: 30-015-41578

Proposed Date: October 17, 20023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX Federal 21 #031
Incident Number: nAPP2326847671

API: 30-015-41266

Proposed Date: October 17, 20023, October 18, 2023, October 19, 2023, October 20, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX 16 #009
Incident Numbers: nAPP2322658221 & nAPP2317840368
API: 30-015-39752

Proposed Date: October 16, 2023, October 17, 2023, October 18, 2023, October 19, 2023, October 20, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thank you,

Erick Herrera
Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 18, 2023 5:25 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 18, 2023 3:34 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 23rd through October 27th, 2023:

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: Sheep Draw Federal Battery #2
Incident Numbers: NGEG0720040869

API: 30-015-27015

Thank you,

Erick Herrera
Staff Geologist

Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Wednesday, October 25, 2023 2:52 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 25, 2023 1:18 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30th through November 3th, 2023:

Proposed Date: October 30, 2023, October 31, 2023, November 1, 2023, November 2, 2023, November 3, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thanks,

Erick Herrera

Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 10:36 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from todays date or timeframe NMOCD deems reasonable.

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Tuesday, October 24, 2023 10:24 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD; Wells, Shelly, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

No problem, thank you for the update.

Your request for an extension to **January 18th, 2024** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Friday, October 20, 2023 8:42 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Robert,

To summarize the below extension request. Basically we could not start excavation till BLM gave the OK on a cultural site they were considering possibly significant. When they finally did give the OK to proceed, we started immediately on the excavation, but we just don't have time to finish excavation and reporting by the current deadline of October, 20th. We are in the middle of the excavation and plan on delivering closure as soon as completed. Delay on this project was out of our control.

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for a report required in 19.15.29.12.B.(1) NMAC at the Ross Draw Unit #011 (Site) associated with the following Incident Numbers: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755.

An extensive cultural survey was required by the Bureau of Land Management (BLM) for the proposed work areas in pasture soil prior to conducting remediation activities to address the Incident Numbers listed above according to a Remediation Work Plan approved on October 19, 2022. SWCA was contracted to conduct the cultural survey, which began on May 2, 2023, the earliest a field crew was available. The cultural survey was completed over the course of approximately 2.5 weeks, and a subsequent report was submitted to the BLM for review on July 28, 2023. On August 14,

2023, SWCA received report edits from the BLM, which were addressed in accordance with subsequent correspondence with the BLM. The revised report was re-submitted to the BLM for review on September 1, 2023, which was determined to require minor edits prior to approval. SWCA submitted the finalized report on September 8, 2023, and on September 21, 2023, the BLM approved the sundry with monitoring stipulations and remediation activities began on October 2, 2023. Excavation activities are still currently on-going and approximately 50% of the proposed excavation area remains.

To provide enough time to complete remediation activities, soil sampling analyses, and prepare a subsequent report, WPX requests a 90-day extension of the deadline for the multiple Incident Numbers at the Site to **January 18, 2023.**

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 9:36 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011
Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from todays date or timeframe NMOCD deems reasonable.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Raley, Jim
Sent: Tuesday, May 2, 2023 8:29 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RDU 11 Extension

Robert,
We had a tentative due date of (4/21/2023) to complete excavation at the RDU 11 for several incidents. BLM has requested a fairly extensive cultural survey before we can begin excavation. We are currently waiting on the archeological vendor (SWCA) to complete the survey and have BLM review. Due to this delay we would like to request an extension to the due to date to 7/20/2023.

(nAPP2200728755, nAB1632647780, nAB1712951426, nAB1728551205, nAB1728553778, nHMP1412241998)

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

APPENDIX G

Approved Remediation Work Plan

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 02 2017
RECEIVED

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1712951426 — 24e289

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company WPX Energy Inc/RKI	Contact Karolina Blaney
Address 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02238133N **Longitude**: -103.86640329W

NATURE OF RELEASE

Type of Release. Oil	Volume of Release: 50 Bbls	Volume Recovered: 40 Bbls
Source of Release Poly line	Date and Hour of Occurrence 4/20/2017	Date and Hour of Discovery 4/20/2017 – 13:20 hrs MT
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour: 4/21/2017– 9:57hrs MT	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

The spill was caused by human error; the equipment setup was changed and the calibration employees were given a wrong information. They closed a valve that should've been open which resulted in over-pressuring an above ground poly line. Approximately 50 bbls of oil was spilled off location north and west of the location.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was mapped with Trimble. 40 bbls of oil was recovered with vac trucks. With BLM's approval, the impacted area off location was excavated to 2' below the surface to address the hydrocarbon concentrations. The impacted area will be sampled to determine if any additional excavation is necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney

Printed Name: Karolina Blaney

Title: Environmental Specialist

E-mail Address: Karolina.blaney@wpxenergy.com

Date: 5/2/2017 Phone: 970-589-0743

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 5/8/17 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐

* Attach Additional Sheets If Necessary

3RP-4197

State of New Mexico
Oil Conservation Division

Incident ID	nAB1712951426
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1712951426
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 05 2017
RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1728553778 — 24628

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy	Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ **Longitude**__-103.86714_ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence unknown	Date and Hour of Discovery 9/21/2017 at 13:10
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/21/17 at 16:45	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 9/28/17 and on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney	OIL CONSERVATION DIVISION
Printed Name: Karolina Blaney	Approved by Environmental Specialist: Signed By Mike Bratcher
Title: Environmental Specialist	Approval Date: 10/5/17 Expiration Date: N/A
E-mail Address: Karolina.blaney@wpxenergy.com	Conditions of Approval: See Attached Attached ☐ 2RP-4432
Date: 10/5/17 Phone: 970 589 0743	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4432 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/5/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,
Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, September 21, 2017 4:45 PM
To: Weaver, Crystal, EMNRD; 'Tucker, Shelly'
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 - initial notification

Good afternoon,

WPX discovered a spill this afternoon, 9/21/17 at 1:10 pm, located south of the RDU 11 well pad; API # 30-015-24307; O-22-26S-30E. The coordinates of the spill origin are: Lat 32.02114 long -103.86714. The cause is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown at this time but it exceeds the reportable quantities.

The spill report will be submitted in the next 15 days but if you have any questions or concerns, please do not hesitate to contact me.
Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 05 2017
RECEIVED

Form C-141
Revised April 3, 2017
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1728551205 — 24462389

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy	Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ **Longitude**__-103.86714_ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence 9/30/17	Date and Hour of Discovery 9/30/2017 at 15:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/30/17 at 20:30	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney	OIL CONSERVATION DIVISION
Printed Name: Karolina Blaney	Approved by Environmental Specialist: Shelly Tucker
Title: Environmental Specialist	Approval Date: 10/5/17 — Expiration Date: N/A
E-mail Address: Karolina.blaney@wpxenergy.com	Conditions of Approval: See attached — Attached ☐ 2RP-4431
Date: 10/5/17 Phone: 970 589 0743	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number APP-4431 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District** 2 **office in** ARTESIA **on or before** 11/5/2017**. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,
Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

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Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report

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The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.
thank you,
Karolina Blaney
970 589 0743

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Titl : Environmental Professional

Signature:  Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Robert Hamlet Date: 5/4/2022

- [ ] Approved
- [x] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Robert Hamlet Date: 5/4/2022

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dvn.com	Incident # *(assigned by OCD)* nAPP2200728755
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

Location of Release Source

Latitude 32.0224991 Longitude -103.8669281
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ROSS DRAW UNIT #011	Site Type: Oil Production Site
Date Release Discovered: January 4th. 2022	API# *(if applicable) 30-015-24307*

Unit Letter	Section	Township	Range	County
O	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 20	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 24	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Dump malfunctioned on separator, causing fluids to escape from PRV and impact soils in dirt secondary containment, pad surface and slightly off-pad.

[Saturated Soil Volume yds^3 x percent porosity x (6.41187 bbls/1 yds^3)] = bbls of residual fluid in soil
[Fluid Volume yds^3 x (6.41187 bbls/1 yds^3)] = bbls of free-standing fluid

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc) Via email sent to Mike Bratcher, Emily Hernandez and Robert Hamlet on 1/4/2022	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____James Raley_____ Title: Environmental Specialist _____

Signature: _____ _____ Date: ___1/10/2022_____

email: ___jim.raley@dvn.com_____ Telephone: ___575-689-7597_____

OCD Only

Received by: Ramona Marcus Date: 1/10/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 71386
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

REMEDIATION WORK PLAN AND DEFERRAL REQUEST REPORT

Site Location:

Ross Draw Unit #011
Eddy County, New Mexico
Incident Numbers:
NHMP1412241998
nAB1632647780
nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755

April 1, 2022
Ensolum Project No. 03A1987006

Prepared for:

WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley

Prepared by:

Joseph S. Hernandez
Senior Geologist

Ashley Ager, M.S., PG
Program Director, Geologist

ENSOLUM

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1.1 Site Description & Releases Overview ..... 1&2
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2.0 SOIL SAMPLING AND INITIAL REMEDIAL ACTIONS 3
2.1 Delineation Activities ..... 3&4
3.0 SOIL SAMPLING RESULTS 4
4.0 DEFFERAL REQUEST ..... 4&5
5.0 REMEDIATION WORK PLAN ..... 5&6
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APPENDICES

Appendix A: Figure 1 – Site Map
Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)
Figure 2B – Delineation Soil Sample Locations (nAB172855377 and nAB1728551205)
Figure 3 – Area of Concern Tract (NHMP1412241998)
Figure 4 – Proposed Excavation Extent

Appendix B: Well Record

Appendix C: Lithologic Soil Sampling Logs

Appendix D: Photographic Log

Appendix E: Tables

Appendix F: Laboratory Analytical Reports & Chain-of-Custody Documentation

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Remediation Work Plan Report (RWP) to document site assessment, soil sampling activities and preliminary corrective actions performed to date by WPX Permian Energy, LLC (WPX) at the Ross Draw Unit #011 (hereinafter referred to as the "Site") in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico **(Figure 1 in Appendix A).** Based on field observations, field screening activities and review of the laboratory analytical results from delineation soil sampling activities at the Site, WPX respectfully submits this RWP, which summarizes soil sampling activities and initial response efforts that have occurred and proposes additional remediation and soil sampling activities to further investigate and address reportable releases of produced water and/or crude oil at the Site.

Additionallly, WPX has provided relevant information from a recent deferral request (Incident Number NRM2034258716), authored by WSP USA Inc. (WSP) and approved by New Mexico Oil Conservation Division (NMOCD) on January 13, 2022 for a release that overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the field summary and laboratory analytical data as it is applicable in the deferral request for Incident Number nAB1632647780. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.022210° N, 103.867013°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land **(Figure 1 in Appendix A)**.

NHMP1412241998

On March 18, 2014, a 4-inch PVC transfer line leaked and caused 200 barrels (bbls) of oil and produced water to be released and migrate southwest-west approximately 0.6 miles through the pasture. No fluids were able to be recovered immediately. WPX reported the release to the NMOCD via email and with a subsquent Corrective Action Form C-141 (Form C-141) dated March 29, 2014. The release was assigned Incident Number NHMP1412241998.

nAB1632647780

On November 5, 2016, a pump air locked and caused an oil tank to overfill and release approximately 70 bbls of crude oil into the earthen containment berm. No fluids escaped the earthern containment berm. Approximately 66 bbls of crude oil were recovered via vacuum truck. WPX reported the release to the NMOCD via email on November 6, 2016 and with a subsquent Form C-141 on November 17, 2016. The release was assigned Incident Number nAB1632647780.

nAB1712951426

On April 20, 2017, human error during equipment reconfiguration resulted in overpressurization of an aboveground poly line that released approximately 50 bbls of crude oil to the pasture north and west of the well pad location. Approximately 40 bbls of crude oil were recovered. WPX

reported the release to the NMOCD via email on April 21, 2017 and with a subsquent Form C-141 on May 2, 2017. The release was assigned Incident Number nAB1712951426.

nAB1728553778 and nAB1728551205

On September 21, 2017 and September 30, 2017 it was discovered that a poly line had failed between 75 and 100 feet south of the well pad and resulted in an unknown volume of produced water to be released and migrate an estimated 600 yards southwest in the pasture. No fluids were able to be recovered immediately due to heavy rainfall but volumes appeared to exceed the reportable limit. WPX reported the releases to the NMOCD via email and with subsquent Form C-141s on October 5, 2017. Incident Numbers nAB1728553778 and nAB1728551205, respectively were assigned.

nAPP2200728755

On January 4, 2022, the dump malfunctioned on a separator, causing the release of approximately 24 bbls of produced water and 20 bbls of crude oil into a earthen berm secondary containment and immediate pasture. No fluids were able to be recovered immediately but the release area on pad was excavated to approximately 0.5 foot below ground surface (bgs) to address surface staining. WPX reported the release to the NMOCD via email on January 4, 2022 and with a subsquent Form C-141 January 10, 2022. The release was assigned Incident Number nAPP2200728755.

1.2 Site Characterization

Ensolum characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on **Figure 1 in Appendix A.**

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based a soil boring (MW-1) that was drilled by Talon LPE on December 9, 2020, located approximately 0.40 miles southeast of the Site. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 106 feet bgs. No fluids were observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The well log is provided as **Appendix B.**

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release.

1.3 Project Objective

The primary objectives of Ensolum's scope of services were to document soil characterization and delineation actions performed at the Site were completed in accordance with the applicable NMOCD regulatory RWP guidelines and to document those concentrations of constituents of concern (COCs) present in soil remaining on-Site required to be addressed.

2.0 SOIL SAMPLING AND INITIAL REMEDIAL ACTIONS

WPX conducted initial remediation activities for Incident Number nAPP2200728755 by excavating impacted soil on pad for off-Site disposal. WSP conducted soil sampling activities to verify the presence or absence of soil impacts associated with the subject releases.

2.1 Delineation Activities

nAP1712951426 and nAPP2200728755

On January 25, 2022 and Febraury 28, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH17): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 3 foot bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2A in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil sampling logs **(Appendix C).** The soil samples were placed directly into a pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C), under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation during delineation activities is included in **Appendix D.**

nAB1728553778 and nAB1728551205

On March 3, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH10): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 2 feet bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2B in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil

sampling logs **(Appendix C).** The soil samples were handled, collected and analyzed as previously described. Photographic documentation during delineation activities is included in **Appendix D.**

3.0 SOIL SAMPLING RESULTS

nAP1712951426 and nAPP2200728755

Laboratory analytical results for delineation soil samples BH03, BH04, BH10, BH13, BH16 and BH17 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH01, BH02, BH05 through BH09, BH11, BH12, BH14 and BH15 indicated COCs were within the applicable Closure Criteria and/or reclamation standard requirement.

nAB1728553778 and nAB1728551205

Laboratory analytical results for delineation soil samples BH01 through BH03 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH04 through BH10 indicated COCs were within the applicable reclamation standard requirement.

Laboratory analytical results are summarized in the **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

4.0 DEFFERAL REQUEST

nAB1632647780

The Deferral Request for Incident Number NRM2034258716, authored by WSP, was approved by NMOCD on January 13, 2022 and overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the laboratory analytical data as it can be applicable for this release to provide vertical and lateral definition of the historical release. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

Based on the summary of the approved Deferral Request, the following findings and conclusions regarding the incident are presented:

- Based on laboratory analytical results of confirmation and delineation soil samples for Incident Number NRM2034258716, impacts associated with Incident Number nAB1632647780 were confirmed to have remained within the secondary containment, as documented on the Form C-141;
- Based on soil laboratory analytical results and extent of release area within the secondary earthen berm containment, an estimated **102 cubic yards** was approved to be deferred until the Plugging and Abandonment or recontruction of the Site, whichever comes first.

Based on the findings and conclusions of this approved Deferral Report and review and applicability to historical Incident Number nAB1632647780, No Further Action appears warranted at this time and the Site should be respectfully considered for Deferral by the NMOCD using the previously collected data.

5.0 REMEDIATION WORK PLAN

Based on the results documented in this report, the following findings and conclusions regarding the releases are presented:

- Areas within the top four feet of the pasture contain impacted soil exceeding the reclamation standard; however, impacts exceeding Closure Criteria within the area of concerns for nAB1728551205, nAB1728553778 and nAB1712951426 and release extent for nAPP220728755 do not appear to exceed 4 feet bgs;
- Based on existing soil analytical results and mapped extent of the release areas, an estimated **6,840 cubic yards** of impacted soil is anticipated to be remediated and/or removed from the Site for disposal in accordance with state and federal regulations. The current proposed excavation extent is depicted on **Figure 4 in Appendix A**;
- Based on laboratory analytical results for delineation samples from BH01, BH06, BH05, BH09, BH11 and BH12 (nAP1712951426 and nAPP2200728755), no remediation efforts are required in these areas. No areas on pad exceed the Closure Criteria for the Site.

Based on the conclusions presented above, the following remediation is proposed:

- Soil characterization and investigation is required to determine the lateral and vertical extent of impact associated with Incident Number NHMP1412241998. A proposed tract that aligns with details provided on the C-141 is provided on **Figure 3 in Appendix A.** Ensolum will conduct delineation activities to verify the presence or absence of soil impacts associated with this incident. Laboratory analytical results will be used to update additional cubic yards of soil to be remediated, if any;
- Horizontal delineation of all releases associated with nAB1728551205, nAB1728553778 and nAB1712951426 and nAPP220728755 will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts;
- Impacted soil will be excavated from the top four feet of the areas in the pasture containing soil exceeding the reclamation standard. Excavated soil will then be transferred to: (a) a New Mexico approved landfill facility for disposal and the excavation will be backfilled with Non-waste containing soil, as defined by “Procedures for Implementation of the Spill Rule” (September 6, 2019) or (b) an on-site ex-situ treatment cell for chloride extraction. Following review of the additional soil characterization at the Site, WPX will re-evaluate the proposed remedial options and submit a revised RWP detailing the option (b) treatment and sampling plan for NMOCD review, if selected.
- Surface scraping may be conducted to remove any minor surficial staining in areas that are delineated;

- Access for remediation or disturbance that occurs offsite requires BLM approval with additional coverage. WPX will prepare and submit documentation for proposed work areas before initiating corrective actions;

- There are areas off pad (ex. Right-of-Way) that will likely require third-party operator oversight and additional safety measures before or during remediation activities near their respective subsurface pipelines. WPX or the third party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a WPX or third-party operator safety representative.

- Subsequent to the completion of remediation and receipt of soil confirmation sample results documenting that impacted soil had been removed, the excavation will be backfilled with clean and/or treated soil and restored to “as close to its original state” as possible.

5.1 Proposed Sampling

WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 193 floor samples within the release extent, excluding sidewall samples. Due to the large extent of the impacted areas (38,500 square feet), Ensolum proposes increasing the confirmation sampling size to collecting a 5-point composite sample to represent each 1,000 square foot area for the floors and sidewalls of the excavation.

5.2 Proposed Schedule

WPX believes the scope of work described above will meet requirements set forth in NMAC 19.15.29.13 and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

Based on the extent of corrective measures, planning and potential third-party operator oversight at the Site, WPX anticipates beginning remediation by **January 2023.**

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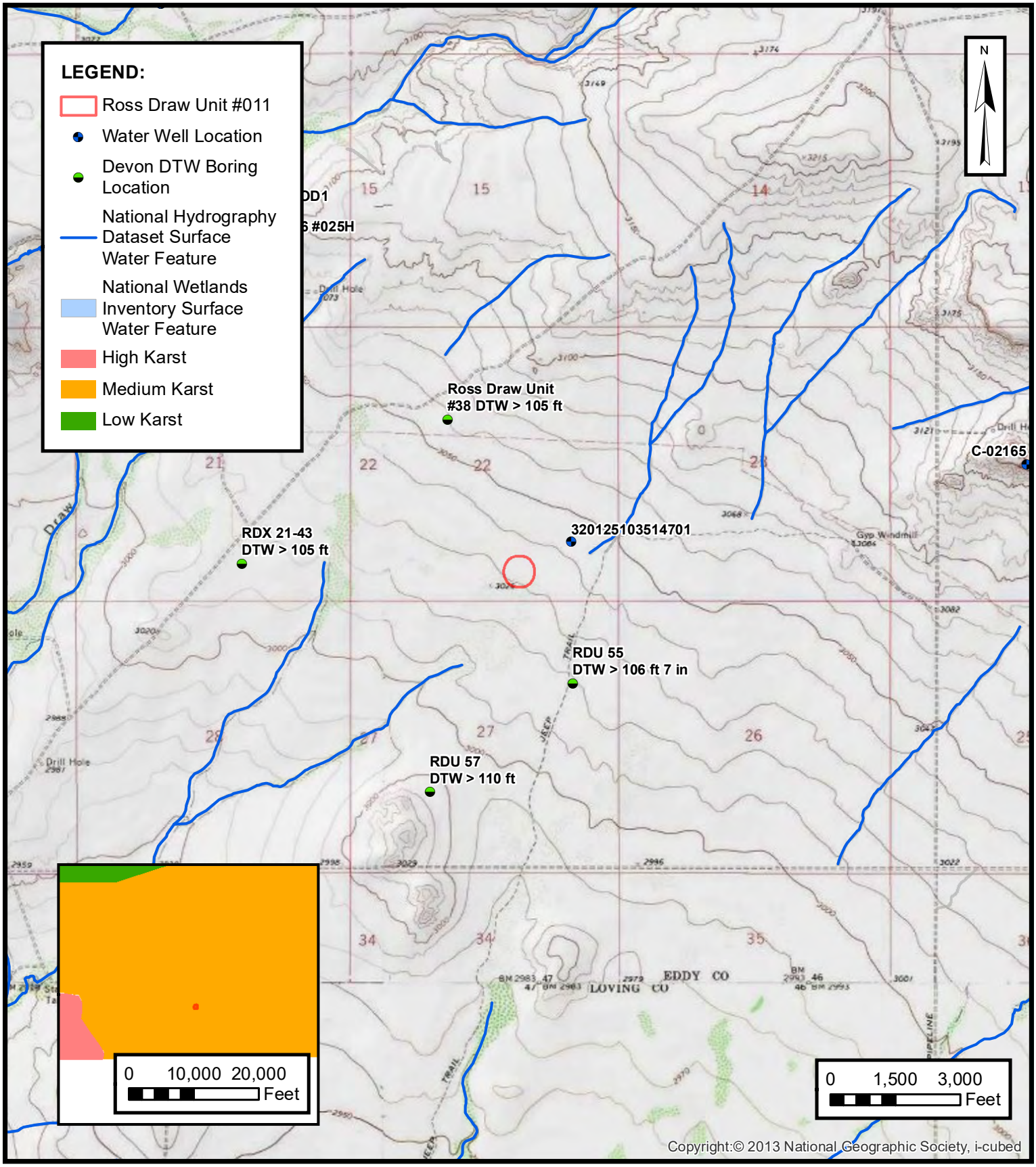
APPENDIX A

Figures



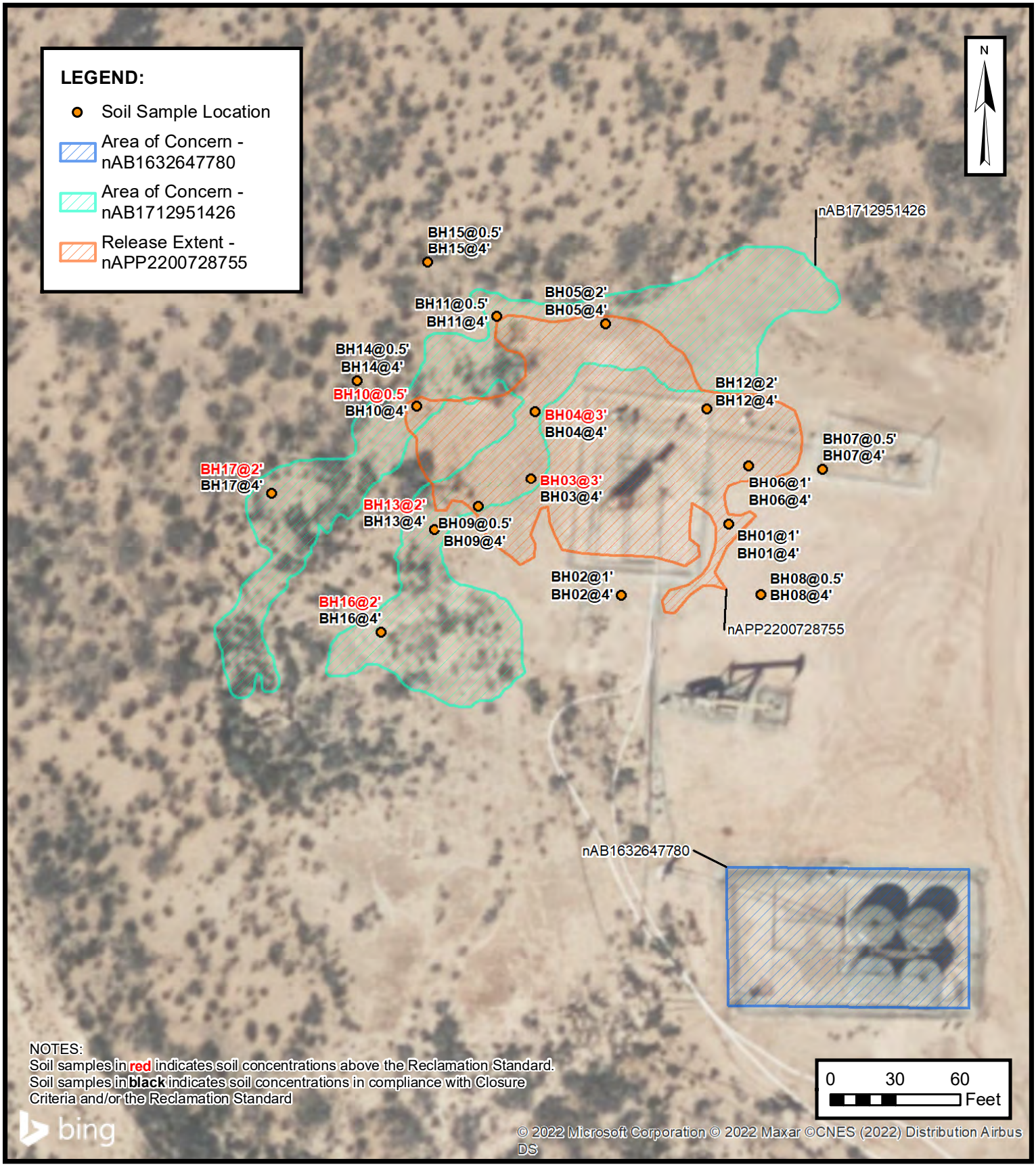
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
1



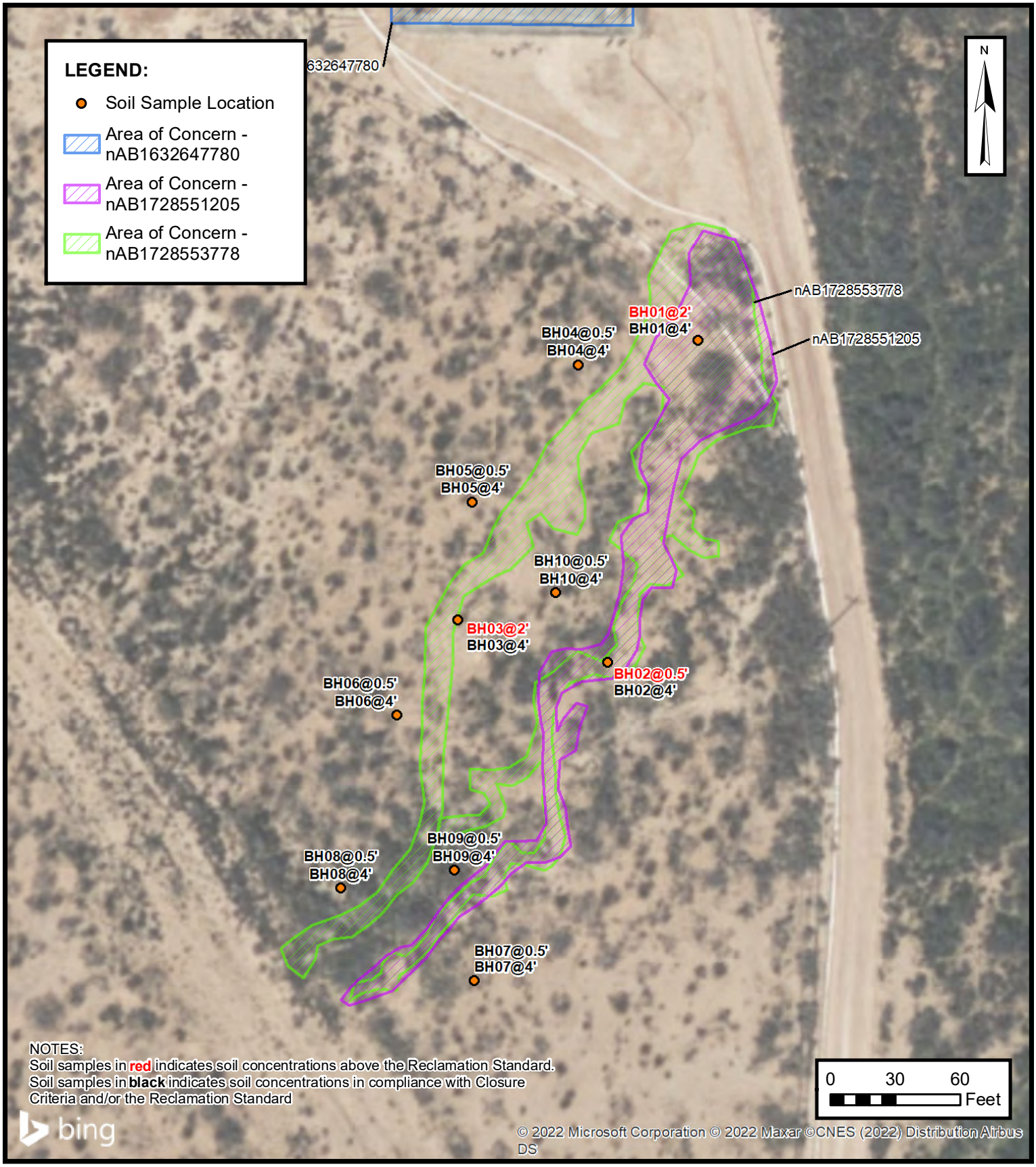
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATION MAP 2A

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2A



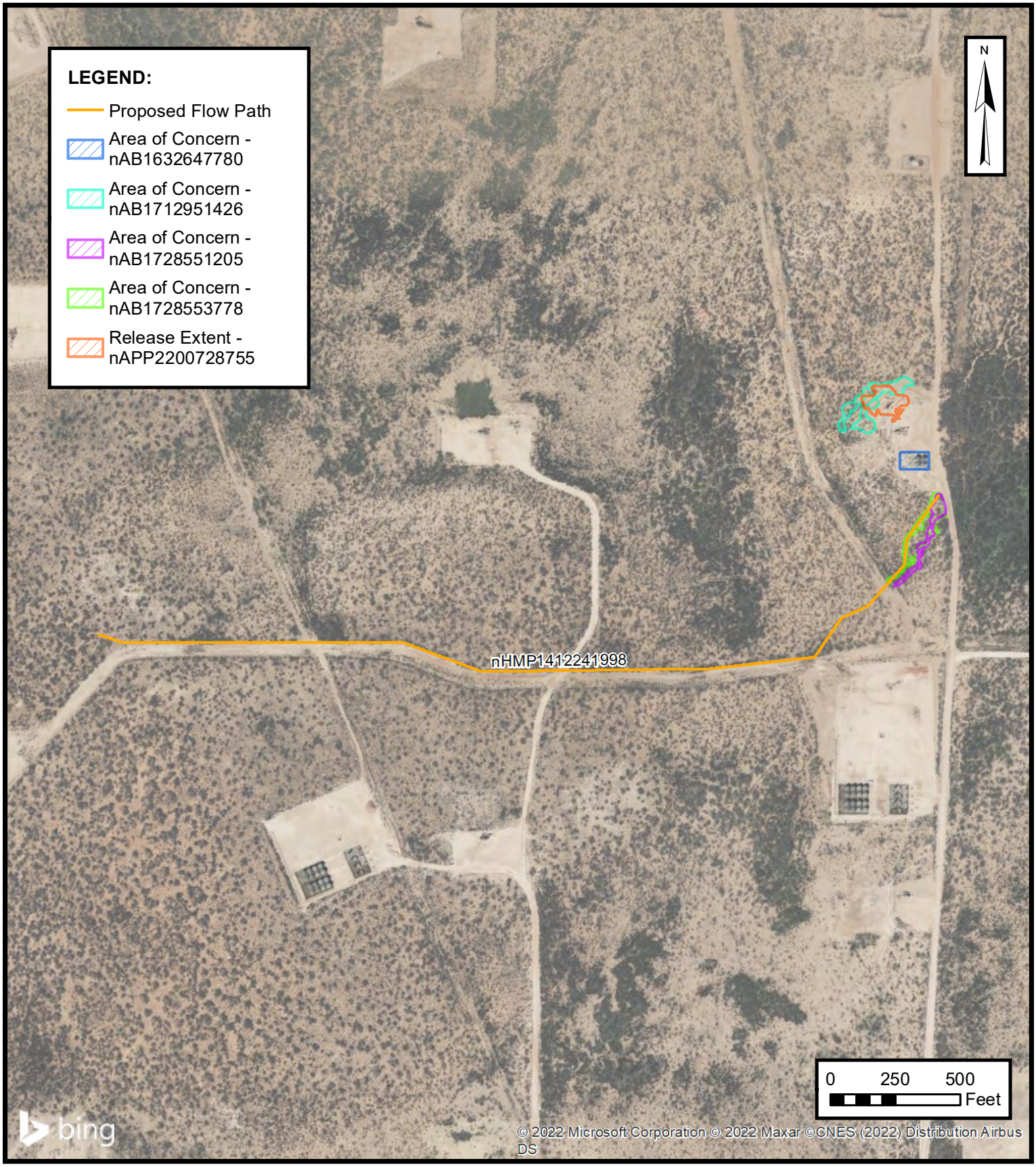
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATION MAP 2B

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2B



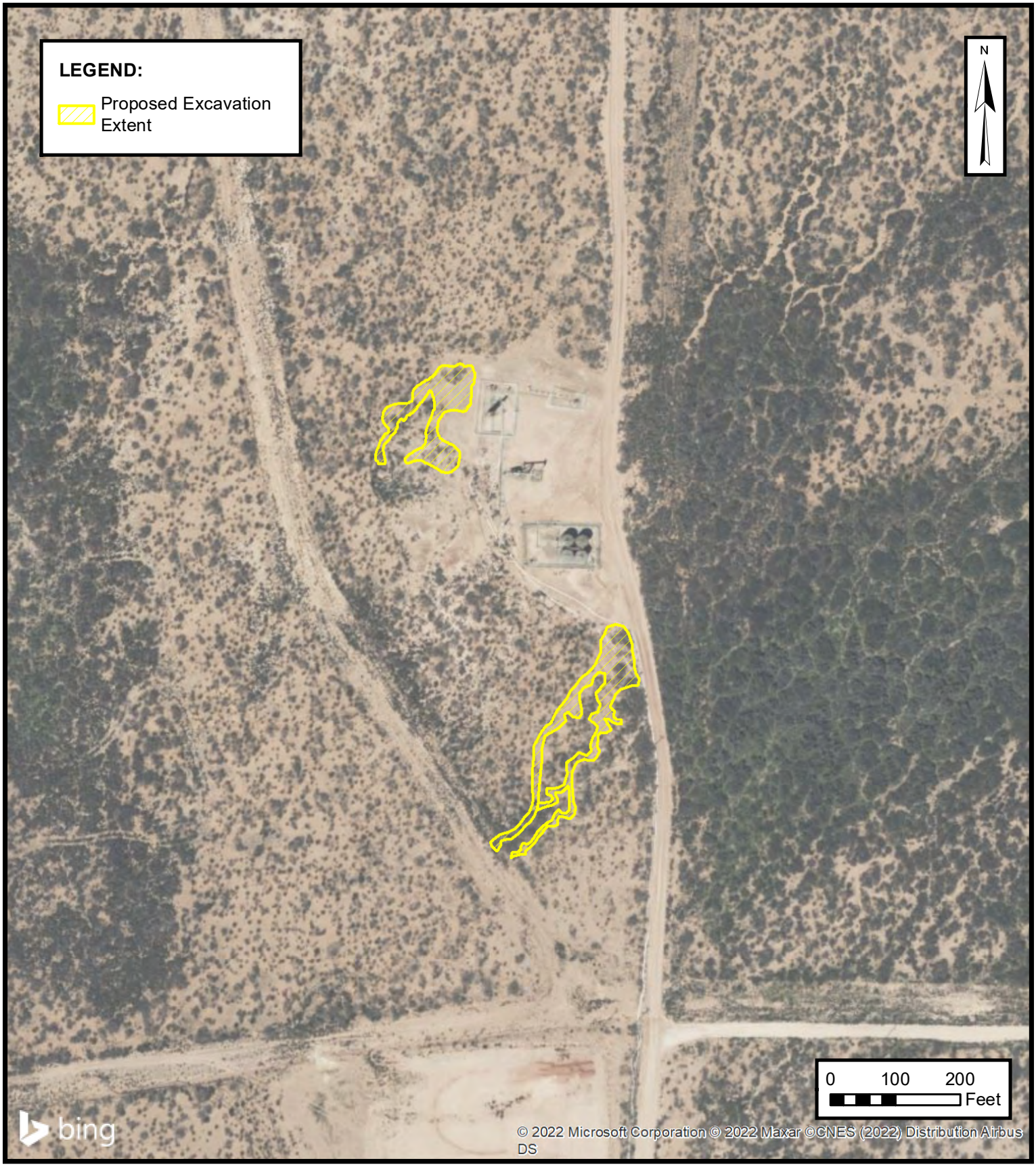
ENSOLUM
Environmental & Hydrogeologic Consultants

AREA OF CONCERN TRACT

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
3



ENSOLUM
Environmental & Hydrogeologic Consultants

PROPOSED EXCAVATION AREAS

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
4

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APPENDIX B

Well Record

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: BH01	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022700°, -103.866936°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, some staining, H-C odor.
M	1,260	1.6	Y	BH01	1	1		At 2', decrease in staing to slight staining, decrease in odor to slight H-C ofor.
								At 3', no staining, no odor.
M	816	0.9	Y		2	2		
M	1,020	0.2	N		3	3		
M	1,176	0.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH02	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022624°, -103.867072°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	<128	0.1	N	BH02	1	1		
M	<128	0.1	N		2	2		
M	<128	0	N		3	3		
M	<128	0.2	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022749°, -103.867186°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, slight odor.
								At 3', no odor.
M	<128	2.5	Y		1	1		
M	280	2.5	N		2	2		
M	1,544	1.1	N	BH03	3	3		
M	1,896	1.4	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH04	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022821°, -103.867181°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, slight staining, slight odor.
								At 2', no staining.
M	180	27.6	Y		1	1		At 3', color change to light brown, no odor.
								At 4' color change to dark brown.
M	1,260	9.9	N		2	2		
M	2,552	14.5	N	BH04	3	3		
M	1,772	20.2	N	BH04	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH05	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022915°, -103.867092°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor. At 2', color change to light brown.
M	152	0.1	N	BH05	1	1		
M	<128	0.1	N		2	2		
M	<128	0.1	N		3	3		
M	<128	0.1	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH06	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022763°, -103.866911°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	488	0.1	N	BH06	1	1		At 3', color change to light brown.
M	444	0	N		2	2		
M	444	0.9	N		3	3		
M	356	0.4	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH07	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 3 32.022759°, -103.866818°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	588	0.1	N	BH07	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	<128	0.7	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.2	N		2	2		
						3	CCHE	3-4',CALICHE, dry, light brown-brown, well graded, very fine-medium grain, no stain, no odor.
D	444	0.2	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022624°, -103.866896°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.1	N	BH08	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	152	0.1	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.1	N		2	2		
						3		
D	<128	0.1	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH09	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022719°, -103.867253°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.5	N	BH09	0.5	0	SP-SM	0-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	820	0.9	N		1	1		
D	1,360	0.8	N		2	2		
						3		At 3', color change to light brown-brown.
D	756	1.8	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM

Sample Name: BH10	Date: 2-18-2022
Site Name: Ross Draw Unit #011	
Incident Number: nAPP2200728755 & nAB1712951426	
Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM / Method: Hand Auger
Coordinates: 32.022827°, -103.867331°	Hole Diameter: 4" / Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	280	0.5	N	BH10	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	0.9	N		1	1	SP-SM	1-3', SAND, dry, reddish brown-brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,224	0.8	N		2	2		
						3	SM	3-4', SILTY SAND, dry, tan-light brown, fine-medium grain, no stain, no odor.
D	11,016	1.8	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH11	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022923°, -103.867229°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<128	2.2	N	BH11	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	4.3	N		1	1		
D	120	2.3	N		2	2		
						3	CCHE	3-4', CALICHE, dry, tan, well graded, fine-medium grain, no stain, no odor.
D	2,188	4.3	N	BH11	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH12	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022824°, -103.866964°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,556	0.3	N		0.5	0	SW-SM	0-1', SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	1,780	0.4	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,200	0.9	N	BH12	2	2		
						3		
D	1,556	0.3	N	BH12	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH13	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022694°, -103.867308°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	142	N/A	N		0.5	0	SP	0-2', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor. Note: PID not calibrating. Only screening for chlorides.
D	1,360	N/A	N		1	1		At 1', some silt.
D	2,840	N/A	N	BH13	2	2	SW-SM	2-3', SAND, dry, brown, well graded with silt, very fine- fine grain, no stain, no odor.
						3	CCHE	3-4', CALICHE, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	4,884	N/A	N	BH13	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH14	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022854°, -103.867406°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	360	N/A	N	BH14	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3		At 4', some silt.
D	120	N/A	N	BH14	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH15	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022981°, -103.867317°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N	BH15	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3	SW	3-4', SAND, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	<120	N/A	N	BH15	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH16	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022584°, -103.867375°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	1,360	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	1,556	N/A	N	BH16	2	2		
						3	SW-SM	3-4', SAND, dry, tan-light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	3,076	N/A	N	BH16	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH17	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022733°, -103.867514°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
								At 1', no organics.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	888	N/A	N	BH17	2	2		
						3	SW-SM	3-4', SAND, dry, light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	6,160	N/A	N	BH17	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH01	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021844°, -103.866550°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	6,160	1.5	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	6,160	1	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	6,664	0.8	N	BH01	2	2		
						3		
D	7,824	1.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH02	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021498°, -103.866665°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	3,076	0.4	N	BH02	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	1,664	0.4	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,452	0.5	N		2	2		
						3		
D	9,244	0.6	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021543°, -103.866854°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	0.4	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	252	0.3	N		1	1	SP-SM	1-2',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,556	0.3	N	BH03	2	2	SW-SM	2-4',SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
						3		
D	7,216	0.9	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH05	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021670°, -103.866836°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	2.6	N	BH05	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	4	N		1	1		
D	<120	3.6	N		2	2		
						3		
D	<120	4.3	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH06	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021442°, -103.866931°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	144	0.7	N	BH06	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	0.8	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	<120	2.9	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH07	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021156°, -103.866833°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.8	N	BH07	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.9	N		1	1		
D	<120	2.1	N		2	2		
						3		
D	120	2.3	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021256°, -103.867002°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.3	N	BH08	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.4	N		1	1		
D	<120	1.9	N		2	2		
						3		
D	<120	3.6	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH09	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021275°, -103.866859°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.1	N	BH09	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.5	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	168	1	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH10	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021573°, -103.866730°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.7	N	BH10	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	3.2	N		1	1		
D	<120	3.2	N		2	2		
						3		
D	<120	4.2	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

APPENDIX D

Photographic Log

ENSOLUM

Photographic Log

WPX Energy Permian, LLC.
Ross Draw Unit #011 - Project Location
Ensolum Job Number: 03A1987006

Photograph 1
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 2
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 3
Date: February 28, 2022
Description: View of the Site during delineation

Photograph 4
Date: March 3, 2022
Description: View of the Site during delineation activities

ENSOLUM

APPENDIX E

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Delineation Soil Sample Analytical Results										
Incident Number: nAB1712951426 and nAPP220728755										
BH01	1/25/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
BH01	1/25/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	1,320
BH02	1/25/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	15.7
BH02	1/25/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	11.2
BH03	1/25/2022	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**2,570***
BH03	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,420
BH04	1/25/2022	3	<0.00202	<0.00403	<49.9	68.8	<49.9	68.8	68.8	**3,320***
BH04	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,610
BH05	1/25/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	134
BH05	1/25/2022	4	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	35.6
BH06	1/25/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	601
BH06	1/25/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH07	2/18/2022	0.5	<0.00199	<0.00398	<50.0	81.7	<50.0	81.7	81.7	582
BH07	2/18/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	510
BH08	2/18/2022	0.5	<0.00200	<0.00399	<50.0	108	<50.0	108	108	492
BH08	2/18/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	12.9
BH09	2/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	365
BH09	2/18/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	347
BH10	2/18/2022	0.5	<0.00200	<0.00399	<250	**1,660**	<250	**1,660**	**1,660**	**906***
BH10	2/18/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	18,000
BH11	2/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	135
BH11	2/18/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	3,220
BH12	2/28/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,610
BH12	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,360
BH13	2/28/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,430***
BH13	2/28/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	7,260

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH14	2/28/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH14	2/28/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	115
BH15	2/28/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	77.5
BH15	2/28/2022	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	21.4
BH16	2/28/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	**1,940***
BH16	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,650
BH17	2/28/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	**1,090***
BH17	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,280
Incident Number: nAB1728551205 and nAB1728553778										
BH01	3/3/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	**8,700***
BH01	3/3/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9,220
BH02	3/3/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,300***
BH02	3/3/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,350
BH03	3/3/2022	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	**3,310***
BH03	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH04	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	45.3
BH04	3/3/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.1
BH05	3/3/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	5.80
BH05	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH06	3/3/2022	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
BH06	3/3/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.4
BH07	3/3/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5.01
BH07	3/3/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	130
BH08	3/3/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.90
BH08	3/3/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	57.1

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH09	3/3/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	10.4
BH09	3/3/2022	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	174
BH10	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	5.95
BH10	3/3/2022	4	<0.00199	<0.00398	<50.0	70.6	<50.0	70.6	70.6	34.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

*Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or reclamation requirement for Soils Impacted by a Release*

** - indicates top 4 feet in the pasture area impacted by the release, NMAC 19.15.29.13. D (1) that will be reclaimed following remediation.*

ENSOLUM

APPENDIX F

Laboratory Analytical Reports & Chain-of-Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1876-1
Laboratory Sample Delivery Group: Eddy
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
2/3/2022 12:01:30 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-1876-1
SDG: Eddy

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Job ID: 890-1876-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1876-1

Receipt
The samples were received on 1/26/2022 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH05 (890-1876-9), BH05 (890-1876-10), BH06 (890-1876-11), (890-1883-A-1-C MS) and (890-1883-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2570**		25.3		mg/Kg			02/01/22 18:58	5

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2420**	**F1**	24.8		mg/Kg			02/01/22 19:04	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**68.8**		49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**68.8**		49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3320**		25.0		mg/Kg			02/01/22 19:22	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		25.0		mg/Kg			02/01/22 19:38	5

Client Sample ID: BH05
Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08
Sample Depth: 2

Lab Sample ID: 890-1876-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.02		mg/Kg			02/01/22 19:56	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH05

Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.6**		4.98		mg/Kg			02/02/22 10:49	1

Client Sample ID: BH06

Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*
o-Terphenyl	*78*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**601**		5.03	mg/Kg			02/01/22 20:08	1

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06

Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		4.98		mg/Kg			02/01/22 20:14	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1876-1	BH01	111	100
890-1876-2	BH01	117	101
890-1876-3	BH02	123	103
890-1876-4	BH02	114	101
890-1876-5	BH03	108	75
890-1876-6	BH03	121	89
890-1876-7	BH04	116	82
890-1876-8	BH04	112	99
890-1876-9	BH05	130	100
890-1876-10	BH05	123	112
890-1876-11	BH06	115	104
890-1876-12	BH06	128	89
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1876-1	BH01	81	90
890-1876-2	BH01	81	92
890-1876-3	BH02	79	90
890-1876-4	BH02	77	86
890-1876-5	BH03	82	93
890-1876-6	BH03	76	84
890-1876-7	BH04	91	103
890-1876-8	BH04	72	86
890-1876-9	BH05	68 S1-	76
890-1876-10	BH05	66 S1-	76
890-1876-11	BH06	69 S1-	78
890-1876-12	BH06	77	86
890-1883-A-1-C MS	Matrix Spike	69 S1-	69 S1-
890-1883-A-1-D MSD	Matrix Spike Duplicate	69 S1-	70
LCS 880-18143/2-A	Lab Control Sample	90	96
LCSD 880-18143/3-A	Lab Control Sample Dup	89	93
MB 880-18143/1-A	Method Blank	82	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*

Lab Sample ID: LCS 880-17922/1-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07650		mg/Kg		76	70 - 130		
Toluene			0.100	0.07336		mg/Kg		73	70 - 130		
Ethylbenzene			0.100	0.07414		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1514		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07781		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-17922/2-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene			0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene			0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene			0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130		
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 890-1872-A-3-D MSD
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-18143/1-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18143

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	846.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1190		mg/Kg		119	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-18143/3-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.5		mg/Kg		93	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1204		mg/Kg		120	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1883-A-1-C MS
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	851.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	970.6		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-1883-A-1-D MSD
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	967.9		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	999.6		mg/Kg		98	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	70		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	231.6		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-18029/3-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	261.3		mg/Kg		105	90 - 110	12	20

Lab Sample ID: 890-1876-6 MS
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2420	F1	1240	3559		mg/Kg		92	90 - 110		

Lab Sample ID: 890-1876-6 MSD
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2420	F1	1240	3183	F1	mg/Kg		62	90 - 110	11	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	5035	
890-1876-2	BH01	Total/NA	Solid	5035	
890-1876-3	BH02	Total/NA	Solid	5035	
890-1876-4	BH02	Total/NA	Solid	5035	
890-1876-5	BH03	Total/NA	Solid	5035	
890-1876-6	BH03	Total/NA	Solid	5035	
890-1876-7	BH04	Total/NA	Solid	5035	
890-1876-8	BH04	Total/NA	Solid	5035	
890-1876-9	BH05	Total/NA	Solid	5035	
890-1876-10	BH05	Total/NA	Solid	5035	
890-1876-11	BH06	Total/NA	Solid	5035	
890-1876-12	BH06	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8021B	17922
890-1876-2	BH01	Total/NA	Solid	8021B	17922
890-1876-3	BH02	Total/NA	Solid	8021B	17922
890-1876-4	BH02	Total/NA	Solid	8021B	17922
890-1876-5	BH03	Total/NA	Solid	8021B	17922
890-1876-6	BH03	Total/NA	Solid	8021B	17922
890-1876-7	BH04	Total/NA	Solid	8021B	17922
890-1876-8	BH04	Total/NA	Solid	8021B	17922
890-1876-9	BH05	Total/NA	Solid	8021B	17922
890-1876-10	BH05	Total/NA	Solid	8021B	17922
890-1876-11	BH06	Total/NA	Solid	8021B	17922
890-1876-12	BH06	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	Total BTEX	
890-1876-2	BH01	Total/NA	Solid	Total BTEX	
890-1876-3	BH02	Total/NA	Solid	Total BTEX	
890-1876-4	BH02	Total/NA	Solid	Total BTEX	
890-1876-5	BH03	Total/NA	Solid	Total BTEX	
890-1876-6	BH03	Total/NA	Solid	Total BTEX	
890-1876-7	BH04	Total/NA	Solid	Total BTEX	
890-1876-8	BH04	Total/NA	Solid	Total BTEX	
890-1876-9	BH05	Total/NA	Solid	Total BTEX	
890-1876-10	BH05	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA

Prep Batch: 18143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015NM Prep	
890-1876-2	BH01	Total/NA	Solid	8015NM Prep	
890-1876-3	BH02	Total/NA	Solid	8015NM Prep	
890-1876-4	BH02	Total/NA	Solid	8015NM Prep	
890-1876-5	BH03	Total/NA	Solid	8015NM Prep	
890-1876-6	BH03	Total/NA	Solid	8015NM Prep	
890-1876-7	BH04	Total/NA	Solid	8015NM Prep	
890-1876-8	BH04	Total/NA	Solid	8015NM Prep	
890-1876-9	BH05	Total/NA	Solid	8015NM Prep	
890-1876-10	BH05	Total/NA	Solid	8015NM Prep	
890-1876-11	BH06	Total/NA	Solid	8015NM Prep	
890-1876-12	BH06	Total/NA	Solid	8015NM Prep	
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015 NM	
890-1876-2	BH01	Total/NA	Solid	8015 NM	
890-1876-3	BH02	Total/NA	Solid	8015 NM	
890-1876-4	BH02	Total/NA	Solid	8015 NM	
890-1876-5	BH03	Total/NA	Solid	8015 NM	
890-1876-6	BH03	Total/NA	Solid	8015 NM	
890-1876-7	BH04	Total/NA	Solid	8015 NM	
890-1876-8	BH04	Total/NA	Solid	8015 NM	
890-1876-9	BH05	Total/NA	Solid	8015 NM	
890-1876-10	BH05	Total/NA	Solid	8015 NM	
890-1876-11	BH06	Total/NA	Solid	8015 NM	
890-1876-12	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 18225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015B NM	18143
890-1876-2	BH01	Total/NA	Solid	8015B NM	18143
890-1876-3	BH02	Total/NA	Solid	8015B NM	18143
890-1876-4	BH02	Total/NA	Solid	8015B NM	18143
890-1876-5	BH03	Total/NA	Solid	8015B NM	18143
890-1876-6	BH03	Total/NA	Solid	8015B NM	18143
890-1876-7	BH04	Total/NA	Solid	8015B NM	18143
890-1876-8	BH04	Total/NA	Solid	8015B NM	18143
890-1876-9	BH05	Total/NA	Solid	8015B NM	18143
890-1876-10	BH05	Total/NA	Solid	8015B NM	18143
890-1876-11	BH06	Total/NA	Solid	8015B NM	18143
890-1876-12	BH06	Total/NA	Solid	8015B NM	18143
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015B NM	18143
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18143
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18143
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18143

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 18225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18143

HPLC/IC

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	DI Leach	
890-1876-6	BH03	Soluble	Solid	DI Leach	
890-1876-7	BH04	Soluble	Solid	DI Leach	
890-1876-8	BH04	Soluble	Solid	DI Leach	
890-1876-9	BH05	Soluble	Solid	DI Leach	
890-1876-10	BH05	Soluble	Solid	DI Leach	
890-1876-11	BH06	Soluble	Solid	DI Leach	
890-1876-12	BH06	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1876-6 MS	BH03	Soluble	Solid	DI Leach	
890-1876-6 MSD	BH03	Soluble	Solid	DI Leach	

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	300.0	18029
890-1876-6	BH03	Soluble	Solid	300.0	18029
890-1876-7	BH04	Soluble	Solid	300.0	18029
890-1876-8	BH04	Soluble	Solid	300.0	18029
890-1876-9	BH05	Soluble	Solid	300.0	18029
890-1876-10	BH05	Soluble	Solid	300.0	18029
890-1876-11	BH06	Soluble	Solid	300.0	18029
890-1876-12	BH06	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1876-6 MS	BH03	Soluble	Solid	300.0	18029
890-1876-6 MSD	BH03	Soluble	Solid	300.0	18029

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:34	AJ	XEN MID

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:56	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:18	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:40	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 18:58	CH	XEN MID

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:04	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:22	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:38	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 19:56	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/02/22 10:49	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:55	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:35	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:08	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 19:16	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:14	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1876-1	BH01	Solid	01/25/22 09:10	01/26/22 16:08	1
890-1876-2	BH01	Solid	01/25/22 09:24	01/26/22 16:08	4
890-1876-3	BH02	Solid	01/25/22 09:32	01/26/22 16:08	1
890-1876-4	BH02	Solid	01/25/22 09:50	01/26/22 16:08	4
890-1876-5	BH03	Solid	01/25/22 10:08	01/26/22 16:08	3
890-1876-6	BH03	Solid	01/25/22 10:14	01/26/22 16:08	4
890-1876-7	BH04	Solid	01/25/22 10:34	01/26/22 16:08	3
890-1876-8	BH04	Solid	01/25/22 10:40	01/26/22 16:08	4
890-1876-9	BH05	Solid	01/25/22 13:20	01/26/22 16:08	2
890-1876-10	BH05	Solid	01/25/22 13:25	01/26/22 16:08	4
890-1876-11	BH06	Solid	01/25/22 14:10	01/26/22 16:08	1
890-1876-12	BH06	Solid	01/25/22 14:28	01/26/22 16:08	4

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland TX 79705	City, State ZIP:	→
Phone:	251-702-2329	Email:	Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	EDDY	Due Date:	
Sampler's Name:	Mercy Ranch	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T-NM001	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2 1.0	
Total Containers:		Corrected Temperature:	1.0	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (300.0)	Sample Comments
BH01	S	11/25/2022	0910	1'	Grab			X	X	X	
BH01	C	11/25/2022	0924	4'				X	X	X	
BH02	S	11/25/2022	0932	1'				X	X	X	
BH02	S	11/25/2022	0950	4'				X	X	X	
BH03	S	11/25/2022	1005	3'				X	X	X	
BH03	C	11/25/2022	1014	4'				X	X	X	
BH04	S	11/25/2022	1034	3'				X	X	X	
BH04	S	11/25/2022	1045	4'				X	X	X	
BH05	S	11/25/2022	1320	1'				X	X	X	
BH05	S	11/25/2022	1325	4'	↓			X	X	X	

890-1876 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland Tx 79705	City, State ZIP:	→
Phone:	281-702-2329	Email:	Anna-Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	Eddy	Due Date:	
Sampler's Name:	Macy Roach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	Slight Frost
Total Containers:		Corrected Temperature:	Page

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (EPA 300.0)	Sample Comments
BH06	S	1/25/2022	1410	1'	Grab			X	X	X	
BH06	S	1/25/2022	1428	4'	↓			X	X	X	

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Macy	N. Clark	1/26/22 4:09	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/28/22 12:32 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2003-1
Laboratory Sample Delivery Group: 31403360.03
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/3/2022 3:57:39 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2003-1
SDG: 31403360.03

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Job ID: 890-2003-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2003-1

Receipt
The samples were received on 2/23/2022 11:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-2009-A-3-I), (890-2009-A-3-G MS) and (890-2009-A-3-H MSD) at 25.0, 25.0 and 25.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20605 and analytical batch 880-20710 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH10 (890-2003-7), (LCS 880-20253/2-A) and (880-11670-A-1-D MS). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.7**		50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
Diesel Range Organics (Over C10-C28)	**81.7**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**582**		24.9		mg/Kg			02/27/22 14:24	5

Client Sample ID: BH07

Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**510**		5.00	mg/Kg			02/27/22 14:33	1

Client Sample ID: BH08

Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**108**		50.0	mg/Kg			02/25/22 15:07	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Diesel Range Organics (Over C10-C28)	**108**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**492**		25.1		mg/Kg			02/27/22 14:42	5

Client Sample ID: BH08

Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-4
Matrix: Solid
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		4.98		mg/Kg			02/27/22 14:51	1

Client Sample ID: BH09

Lab Sample ID: 890-2003-5
Matrix: Solid
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		5.05		mg/Kg			02/27/22 14:59	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH09

Lab Sample ID: 890-2003-6
Matrix: Solid
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**347**		5.00		mg/Kg			02/27/22 15:26	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1660**		250	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Diesel Range Organics (Over C10-C28)	**1660**		250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
OII Range Organics (Over C28-C36)	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*
o-Terphenyl	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**906**		4.99	mg/Kg			02/27/22 15:35	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18000**		253		mg/Kg			02/27/22 16:01	50

Client Sample ID: BH11

Lab Sample ID: 890-2003-9
Matrix: Solid
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH11

Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		4.95		mg/Kg			02/27/22 16:10	1

Client Sample ID: BH11

Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*
o-Terphenyl	*116*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3220		25.3		mg/Kg			02/27/22 16:19	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11907-A-1-B MS	Matrix Spike	98	106
880-11907-A-1-C MSD	Matrix Spike Duplicate	94	98
890-2003-1	BH07	88	91
890-2003-2	BH07	78	94
890-2003-3	BH08	88	95
890-2003-4	BH08	59 S1-	92
890-2003-5	BH09	111	97
890-2003-6	BH09	104	93
890-2003-7	BH10	105	102
890-2003-8	BH10	105	101
890-2003-9	BH11	100	90
890-2003-10	BH11	105	103
890-2009-A-3-G MS	Matrix Spike	72	73
890-2009-A-3-H MSD	Matrix Spike Duplicate	122	75
CB MB	Method Blank	51 S1-	99
LCS 880-20526/1-A	Lab Control Sample	98	101
LCS 880-20605/1-A	Lab Control Sample	101	124
LCSD 880-20526/2-A	Lab Control Sample Dup	101	103
LCSD 880-20605/2-A	Lab Control Sample Dup	97	102
MB 880-20526/5-A	Method Blank	97	98
MB 880-20605/5-A	Method Blank	49 S1-	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11670-A-1-D MS	Matrix Spike	69 S1-	73
880-11670-A-1-E MSD	Matrix Spike Duplicate	82	77
890-2003-1	BH07	88	86
890-2003-2	BH07	96	98
890-2003-3	BH08	76	74
890-2003-4	BH08	98	100
890-2003-5	BH09	81	83
890-2003-6	BH09	83	85
890-2003-7	BH10	54 S1-	81
890-2003-8	BH10	84	89
890-2003-9	BH11	89	85
890-2003-10	BH11	113	116
890-2004-A-1-E MS	Matrix Spike	94	81
890-2004-A-1-F MSD	Matrix Spike Duplicate	92	80
LCS 880-20293/2-A	Lab Control Sample	80	81
LCSD 880-20293/3-A	Lab Control Sample Dup	103	104
MB 880-20293/1-A	Method Blank	105	115

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-20253/2-A	Lab Control Sample	132 S1+	136 S1+										
LCSD 880-20253/3-A	Lab Control Sample Dup	113	128										
MB 880-20253/1-A	Method Blank	97	102										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20526/5-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20526

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*

Lab Sample ID: LCS 880-20526/1-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09731		mg/Kg		97	70 - 130		
Toluene			0.100	0.09402		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09440		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2156		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1049		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-20526/2-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1030		mg/Kg		103	70 - 130	6	35
Toluene			0.100	0.09946		mg/Kg		99	70 - 130	6	35
Ethylbenzene			0.100	0.1007		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2324		mg/Kg		116	70 - 130	7	35
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.0498	U F1	0.101	0.8104	F1	mg/Kg		804	70 - 130		
Toluene	<0.0498	U F1 F2	0.101	1.626	F1	mg/Kg		1613	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.0498	U F1 F2	0.101	2.379	F1	mg/Kg		2360	70 - 130
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.202	9.133	F1	mg/Kg		4530	70 - 130
o-Xylene	<0.0498	U F1 F2	0.101	4.163	F1	mg/Kg		4130	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*

Lab Sample ID: 890-2009-A-3-H MSD
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0498	U F1	0.0996	0.9509	F1	mg/Kg		955	70 - 130	16	35
Toluene	<0.0498	U F1 F2	0.0996	2.505	F1 F2	mg/Kg		2515	70 - 130	43	35
Ethylbenzene	<0.0498	U F1 F2	0.0996	3.505	F1 F2	mg/Kg		3519	70 - 130	38	35
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.199	15.01	F1 F2	mg/Kg		7534	70 - 130	49	35
o-Xylene	<0.0498	U F1 F2	0.0996	7.358	F1 F2	mg/Kg		7387	70 - 130	55	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: MB 880-20605/5-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20605

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*49*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1224		mg/Kg		122	70 - 130
Toluene			0.100	0.1044		mg/Kg		104	70 - 130
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene			0.200	0.2201		mg/Kg		110	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.1072		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-20605/2-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1058		mg/Kg		106	70 - 130	15	35
Toluene			0.100	0.09560		mg/Kg		96	70 - 130	9	35
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2080		mg/Kg		104	70 - 130	6	35
o-Xylene			0.100	0.09996		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-11907-A-1-B MS
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.101	0.07733		mg/Kg		77	70 - 130		
Toluene	<0.00200	U F1	0.101	0.06553	F1	mg/Kg		65	70 - 130		
Ethylbenzene	<0.00200	U F1	0.101	0.06954	F1	mg/Kg		69	70 - 130		
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1418		mg/Kg		70	70 - 130		
o-Xylene	<0.00200	U	0.101	0.07034		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07748		mg/Kg		77	70 - 130	0	35
Toluene	<0.00200	U F1	0.100	0.06554	F1	mg/Kg		65	70 - 130	0	35
Ethylbenzene	<0.00200	U F1	0.100	0.07098		mg/Kg		71	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1454		mg/Kg		72	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.07552		mg/Kg		75	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: CB MB
Matrix: Solid
Analysis Batch: 20710

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*		*03/02/22 17:14*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*03/02/22 17:14*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20253/1-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20253

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*

Lab Sample ID: LCS 880-20253/2-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	808.4		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1182		mg/Kg		118	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*132*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCSD 880-20253/3-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	876.2		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Lab Sample ID: 880-11670-A-1-D MS
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1187		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		112	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 880-11670-A-1-E MSD
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1007		mg/Kg		97	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1187		mg/Kg		119	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/25/22 08:25	02/25/22 12:36	1
o-Terphenyl	115		70 - 130	02/25/22 08:25	02/25/22 12:36	1

Lab Sample ID: LCS 880-20293/2-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	797.2		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	928.5		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: LCSD 880-20293/3-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	821.5		mg/Kg		82	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-2004-A-1-E MS
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1240		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1269		mg/Kg		127	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2004-A-1-F MSD
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1205		mg/Kg		121	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1237		mg/Kg		124	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20217/1-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/27/22 12:29	1

Lab Sample ID: LCS 880-20217/2-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.6		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-20217/3-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	252.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-2003-5 MS
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	365		253	614.6		mg/Kg		99	90 - 110		

Lab Sample ID: 890-2003-5 MSD
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	365		253	611.6		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	Total BTEX	
890-2003-2	BH07	Total/NA	Solid	Total BTEX	
890-2003-3	BH08	Total/NA	Solid	Total BTEX	
890-2003-4	BH08	Total/NA	Solid	Total BTEX	
890-2003-5	BH09	Total/NA	Solid	Total BTEX	
890-2003-6	BH09	Total/NA	Solid	Total BTEX	
890-2003-7	BH10	Total/NA	Solid	Total BTEX	
890-2003-8	BH10	Total/NA	Solid	Total BTEX	
890-2003-9	BH11	Total/NA	Solid	Total BTEX	
890-2003-10	BH11	Total/NA	Solid	Total BTEX	

Prep Batch: 20526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	5035	
890-2003-6	BH09	Total/NA	Solid	5035	
890-2003-7	BH10	Total/NA	Solid	5035	
890-2003-8	BH10	Total/NA	Solid	5035	
890-2003-9	BH11	Total/NA	Solid	5035	
890-2003-10	BH11	Total/NA	Solid	5035	
MB 880-20526/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	8021B	20526
890-2003-6	BH09	Total/NA	Solid	8021B	20526
890-2003-7	BH10	Total/NA	Solid	8021B	20526
890-2003-8	BH10	Total/NA	Solid	8021B	20526
890-2003-9	BH11	Total/NA	Solid	8021B	20526
890-2003-10	BH11	Total/NA	Solid	8021B	20526
MB 880-20526/5-A	Method Blank	Total/NA	Solid	8021B	20526
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	8021B	20526
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20526
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	8021B	20526
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20526

Prep Batch: 20605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	5035	
890-2003-2	BH07	Total/NA	Solid	5035	
890-2003-3	BH08	Total/NA	Solid	5035	
890-2003-4	BH08	Total/NA	Solid	5035	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8021B	20605
890-2003-2	BH07	Total/NA	Solid	8021B	20605
890-2003-3	BH08	Total/NA	Solid	8021B	20605
890-2003-4	BH08	Total/NA	Solid	8021B	20605
CB MB	Method Blank	Total/NA	Solid	8021B	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	8021B	20605
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	8021B	20605
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20605
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20605
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20605

GC Semi VOA

Analysis Batch: 20195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015B NM	20253
890-2003-2	BH07	Total/NA	Solid	8015B NM	20253
890-2003-3	BH08	Total/NA	Solid	8015B NM	20253
890-2003-4	BH08	Total/NA	Solid	8015B NM	20253
890-2003-5	BH09	Total/NA	Solid	8015B NM	20253
890-2003-6	BH09	Total/NA	Solid	8015B NM	20253
890-2003-7	BH10	Total/NA	Solid	8015B NM	20253
890-2003-8	BH10	Total/NA	Solid	8015B NM	20253
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015B NM	20253
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20253
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20253
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	20253
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20253

Prep Batch: 20253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015NM Prep	
890-2003-2	BH07	Total/NA	Solid	8015NM Prep	
890-2003-3	BH08	Total/NA	Solid	8015NM Prep	
890-2003-4	BH08	Total/NA	Solid	8015NM Prep	
890-2003-5	BH09	Total/NA	Solid	8015NM Prep	
890-2003-6	BH09	Total/NA	Solid	8015NM Prep	
890-2003-7	BH10	Total/NA	Solid	8015NM Prep	
890-2003-8	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 20293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015NM Prep	
890-2003-10	BH11	Total/NA	Solid	8015NM Prep	
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC Semi VOA (Continued)

Prep Batch: 20293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015B NM	20293
890-2003-10	BH11	Total/NA	Solid	8015B NM	20293
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015B NM	20293
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20293
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20293
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	20293
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20293

Analysis Batch: 20341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015 NM	
890-2003-2	BH07	Total/NA	Solid	8015 NM	
890-2003-3	BH08	Total/NA	Solid	8015 NM	
890-2003-4	BH08	Total/NA	Solid	8015 NM	
890-2003-5	BH09	Total/NA	Solid	8015 NM	
890-2003-6	BH09	Total/NA	Solid	8015 NM	
890-2003-7	BH10	Total/NA	Solid	8015 NM	
890-2003-8	BH10	Total/NA	Solid	8015 NM	
890-2003-9	BH11	Total/NA	Solid	8015 NM	
890-2003-10	BH11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	DI Leach	
890-2003-2	BH07	Soluble	Solid	DI Leach	
890-2003-3	BH08	Soluble	Solid	DI Leach	
890-2003-4	BH08	Soluble	Solid	DI Leach	
890-2003-5	BH09	Soluble	Solid	DI Leach	
890-2003-6	BH09	Soluble	Solid	DI Leach	
890-2003-7	BH10	Soluble	Solid	DI Leach	
890-2003-8	BH10	Soluble	Solid	DI Leach	
890-2003-9	BH11	Soluble	Solid	DI Leach	
890-2003-10	BH11	Soluble	Solid	DI Leach	
MB 880-20217/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2003-5 MS	BH09	Soluble	Solid	DI Leach	
890-2003-5 MSD	BH09	Soluble	Solid	DI Leach	

Analysis Batch: 20409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	300.0	20217
890-2003-2	BH07	Soluble	Solid	300.0	20217

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

HPLC/IC (Continued)

Analysis Batch: 20409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-3	BH08	Soluble	Solid	300.0	20217
890-2003-4	BH08	Soluble	Solid	300.0	20217
890-2003-5	BH09	Soluble	Solid	300.0	20217
890-2003-6	BH09	Soluble	Solid	300.0	20217
890-2003-7	BH10	Soluble	Solid	300.0	20217
890-2003-8	BH10	Soluble	Solid	300.0	20217
890-2003-9	BH11	Soluble	Solid	300.0	20217
890-2003-10	BH11	Soluble	Solid	300.0	20217
MB 880-20217/1-A	Method Blank	Soluble	Solid	300.0	20217
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	300.0	20217
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20217
890-2003-5 MS	BH09	Soluble	Solid	300.0	20217
890-2003-5 MSD	BH09	Soluble	Solid	300.0	20217

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:24	CH	XEN MID

Client Sample ID: BH07
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:42	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:51	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:59	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:26	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		5			20195	02/25/22 05:38	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:35	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		50			20409	02/27/22 16:01	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 16:10	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 16:19	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2003-1	BH07	Solid	02/18/22 10:45	02/23/22 11:26	0.5
890-2003-2	BH07	Solid	02/18/22 10:55	02/23/22 11:26	4
890-2003-3	BH08	Solid	02/18/22 11:00	02/23/22 11:26	0.5
890-2003-4	BH08	Solid	02/18/22 11:10	02/23/22 11:26	4
890-2003-5	BH09	Solid	02/18/22 12:30	02/23/22 11:26	0.5
890-2003-6	BH09	Solid	02/18/22 12:45	02/23/22 11:26	4
890-2003-7	BH10	Solid	02/18/22 13:05	02/23/22 11:26	0.5
890-2003-8	BH10	Solid	02/18/22 13:20	02/23/22 11:26	4
890-2003-9	BH11	Solid	02/18/22 13:30	02/23/22 11:26	0.5
890-2003-10	BH11	Solid	02/18/22 13:45	02/23/22 11:26	4

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Joseph Hernandez	Bill to: (if different)	Joseph Hernandez
Company Name:	WSP USA	Company Name:	WSP
Address:	3300 N A Street	Address:	3300 N A Street
City, State ZIP:	Midland, TX, 79705	City, State ZIP:	Midland, TX, 79705
Phone:	281-702-2329	Email:	Address: Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.03	Routine	✓
P.O. Number:	Napp2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.8/1.6	Thermometer ID	TUM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

CC:1137631001
API:PA.2021.04159.EXP.01

890-2003 Chain of Custody

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH07	S	02/18/22	10:45	0.5'	1	X	X	X	Discrete
BH07	S	02/18/22	10:55	4'	1	X	X	X	Discrete
BH08	S	02/18/22	11:00	0.5'	1	X	X	X	Discrete
BH08	S	02/18/22	11:10	4'	1	X	X	X	Discrete
BH09	S	02/18/22	12:30	0.5'	1	X	X	X	Discrete
BH09	S	02/18/22	12:45	4'	1	X	X	X	Discrete
BH10	S	02/18/22	13:05	0.5'	1	X	X	X	Discrete
BH10	S	02/18/22	13:20	4'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:30	0.5'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:45	4'	1	X	X	X	Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

3/3/2022

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-639 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/1/2022			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.

A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I - Ice, J DI Water, K - EDTA, L EDA, M - Hexane, N - None, O - AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
BH07 (890-2003-1)	2/18/22	10 45 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2003-2)	2/18/22	10 55 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-3)	2/18/22	11 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-4)	2/18/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-5)	2/18/22	12 30 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-6)	2/18/22	12 45 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-7)	2/18/22	13 05 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-8)	2/18/22	13 20 Mountain		Solid			X	X	X	X	X	1	
BH11 (890-2003-9)	2/18/22	13 30 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Cue Cuy 2-23-22				2/24/22	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-639 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 3/1/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I - Ice, J DI Water, K - EDTA, L EDA
M Hexane, N - None, O AsNaO2, P - Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U - Acetone, V MCAA, W pH 4-5, Z other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X						X	
BH11 (890-2003-10)	2/18/22	13 45 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
Unconfirmed
Deliverable Requested I II III, IV, Other (specify) — Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*
Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date	Time.	Method of Shipment:	
Relinquished by: Clue Cap 2 23 22	Date/Time:	Company	Received by: [signature]	Date/Time: 2/24/22	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact. Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks		

Ver 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/24/22 12:49 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2030-1
Laboratory Sample Delivery Group: 31403360.031
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/7/2022 9:27:48 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2030-1
SDG: 31403360.031

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Job ID: 890-2030-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2030-1

Receipt
The samples were received on 3/1/2022 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Lab Sample ID: 890-2030-1
Matrix: Solid
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1610**		25.0		mg/Kg			03/05/22 15:30	5

Client Sample ID: BH12

Lab Sample ID: 890-2030-2
Matrix: Solid
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*9*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1360**		25.0		mg/Kg			03/05/22 16:06	5

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4430**		49.7		mg/Kg			03/05/22 16:18	10

Client Sample ID: BH13

Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*8*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Lab Sample ID: 890-2030-4
Matrix: Solid
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7260		49.8		mg/Kg			03/05/22 16:30	10

Client Sample ID: BH14

Lab Sample ID: 890-2030-5
Matrix: Solid
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.00		mg/Kg			03/05/22 16:41	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH14

Lab Sample ID: 890-2030-6
Matrix: Solid
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**115**		4.99		mg/Kg			03/05/22 16:53	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*170*	*S1+*	*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.5**		5.00		mg/Kg			03/05/22 17:05	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-8
Matrix: Solid
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-8
Matrix: Solid
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.4**		4.98		mg/Kg			03/05/22 17:41	1

Client Sample ID: BH16

Lab Sample ID: 890-2030-9
Matrix: Solid
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*
o-Terphenyl	*92*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH16

Lab Sample ID: 890-2030-9
Matrix: Solid
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		24.8		mg/Kg			03/05/22 17:53	5

Client Sample ID: BH16

Lab Sample ID: 890-2030-10
Matrix: Solid
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		50.1		mg/Kg			03/05/22 18:28	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Lab Sample ID: 890-2030-11
Matrix: Solid
Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1090**		24.9		mg/Kg			03/05/22 18:40	5

Client Sample ID: BH17

Lab Sample ID: 890-2030-12
Matrix: Solid
Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-12

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8280**		100		mg/Kg			03/05/22 18:52	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11719-A-1-J MS	Matrix Spike	89	123
880-11719-A-1-K MSD	Matrix Spike Duplicate	94	124
890-2030-1	BH12	101	114
890-2030-2	BH12	9 S1-	101
890-2030-3	BH13	102	118
890-2030-4	BH13	8 S1-	108
890-2030-5	BH14	87	116
890-2030-6	BH14	106	119
890-2030-7	BH15	170 S1+	85
890-2030-8	BH15	94	110
890-2030-9	BH16	83	105
890-2030-10	BH16	89	108
890-2030-11	BH17	99	106
890-2030-12	BH17	101	108
LCS 880-20687/1-A	Lab Control Sample	82	116
LCSD 880-20687/2-A	Lab Control Sample Dup	84	111
MB 880-20687/5-A	Method Blank	51 S1-	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2030-1	BH12	100	104
890-2030-1 MS	BH12	94	100
890-2030-1 MSD	BH12	99	95
890-2030-2	BH12	99	103
890-2030-3	BH13	108	112
890-2030-4	BH13	95	97
890-2030-5	BH14	104	106
890-2030-6	BH14	118	120
890-2030-7	BH15	97	99
890-2030-8	BH15	108	111
890-2030-9	BH16	93	92
890-2030-10	BH16	105	106
890-2030-11	BH17	96	97
890-2030-12	BH17	99	103
LCS 880-20658/2-A	Lab Control Sample	107	106
LCSD 880-20658/3-A	Lab Control Sample Dup	106	105
MB 880-20658/1-A	Method Blank	112	117

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20687/5-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*

Lab Sample ID: LCS 880-20687/1-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08533		mg/Kg		85	70 - 130		
Toluene			0.100	0.08536		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.09079		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1854		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09200		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-20687/2-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09073		mg/Kg		91	70 - 130	6	35
Toluene			0.100	0.08702		mg/Kg		87	70 - 130	2	35
Ethylbenzene			0.100	0.09419		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1931		mg/Kg		97	70 - 130	4	35
o-Xylene			0.100	0.09334		mg/Kg		93	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130		
Toluene	<0.00199	U	0.0998	0.09757		mg/Kg		98	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2115		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1057		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*

Lab Sample ID: 880-11719-A-1-K MSD
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1073		mg/Kg		106	70 - 130	4	35
Toluene	<0.00199	U	0.101	0.1009		mg/Kg		100	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.101	0.1083		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2216		mg/Kg		110	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.1086		mg/Kg		107	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20658/1-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*
o-Terphenyl	*117*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	930.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	852.2		mg/Kg		85	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20658/3-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	971.8		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	874.2		mg/Kg		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-2030-1 MS
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1077		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	943.7		mg/Kg		94	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2030-1 MSD
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1086		mg/Kg		106	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	910.9		mg/Kg		91	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20681/1-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/05/22 13:14	1

Lab Sample ID: LCS 880-20681/2-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	254.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-20681/3-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	257.4		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-2030-7 MS
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	77.5		250	316.5		mg/Kg		96	90 - 110		

Lab Sample ID: 890-2030-7 MSD
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	77.5		250	321.4		mg/Kg		98	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA

Prep Batch: 20687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	5035	
890-2030-2	BH12	Total/NA	Solid	5035	
890-2030-3	BH13	Total/NA	Solid	5035	
890-2030-4	BH13	Total/NA	Solid	5035	
890-2030-5	BH14	Total/NA	Solid	5035	
890-2030-6	BH14	Total/NA	Solid	5035	
890-2030-7	BH15	Total/NA	Solid	5035	
890-2030-8	BH15	Total/NA	Solid	5035	
890-2030-9	BH16	Total/NA	Solid	5035	
890-2030-10	BH16	Total/NA	Solid	5035	
890-2030-11	BH17	Total/NA	Solid	5035	
890-2030-12	BH17	Total/NA	Solid	5035	
MB 880-20687/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8021B	20687
890-2030-2	BH12	Total/NA	Solid	8021B	20687
890-2030-3	BH13	Total/NA	Solid	8021B	20687
890-2030-4	BH13	Total/NA	Solid	8021B	20687
890-2030-5	BH14	Total/NA	Solid	8021B	20687
890-2030-6	BH14	Total/NA	Solid	8021B	20687
890-2030-7	BH15	Total/NA	Solid	8021B	20687
890-2030-8	BH15	Total/NA	Solid	8021B	20687
890-2030-9	BH16	Total/NA	Solid	8021B	20687
890-2030-10	BH16	Total/NA	Solid	8021B	20687
890-2030-11	BH17	Total/NA	Solid	8021B	20687
890-2030-12	BH17	Total/NA	Solid	8021B	20687
MB 880-20687/5-A	Method Blank	Total/NA	Solid	8021B	20687
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	8021B	20687
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20687
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	20687
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20687

Analysis Batch: 21059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	Total BTEX	
890-2030-2	BH12	Total/NA	Solid	Total BTEX	
890-2030-3	BH13	Total/NA	Solid	Total BTEX	
890-2030-4	BH13	Total/NA	Solid	Total BTEX	
890-2030-5	BH14	Total/NA	Solid	Total BTEX	
890-2030-6	BH14	Total/NA	Solid	Total BTEX	
890-2030-7	BH15	Total/NA	Solid	Total BTEX	
890-2030-8	BH15	Total/NA	Solid	Total BTEX	
890-2030-9	BH16	Total/NA	Solid	Total BTEX	
890-2030-10	BH16	Total/NA	Solid	Total BTEX	
890-2030-11	BH17	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA (Continued)

Analysis Batch: 21059 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-12	BH17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 20655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015B NM	20658
890-2030-2	BH12	Total/NA	Solid	8015B NM	20658
890-2030-3	BH13	Total/NA	Solid	8015B NM	20658
890-2030-4	BH13	Total/NA	Solid	8015B NM	20658
890-2030-5	BH14	Total/NA	Solid	8015B NM	20658
890-2030-6	BH14	Total/NA	Solid	8015B NM	20658
890-2030-7	BH15	Total/NA	Solid	8015B NM	20658
890-2030-8	BH15	Total/NA	Solid	8015B NM	20658
890-2030-9	BH16	Total/NA	Solid	8015B NM	20658
890-2030-10	BH16	Total/NA	Solid	8015B NM	20658
890-2030-11	BH17	Total/NA	Solid	8015B NM	20658
890-2030-12	BH17	Total/NA	Solid	8015B NM	20658
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015B NM	20658
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20658
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20658
890-2030-1 MS	BH12	Total/NA	Solid	8015B NM	20658
890-2030-1 MSD	BH12	Total/NA	Solid	8015B NM	20658

Prep Batch: 20658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015NM Prep	
890-2030-2	BH12	Total/NA	Solid	8015NM Prep	
890-2030-3	BH13	Total/NA	Solid	8015NM Prep	
890-2030-4	BH13	Total/NA	Solid	8015NM Prep	
890-2030-5	BH14	Total/NA	Solid	8015NM Prep	
890-2030-6	BH14	Total/NA	Solid	8015NM Prep	
890-2030-7	BH15	Total/NA	Solid	8015NM Prep	
890-2030-8	BH15	Total/NA	Solid	8015NM Prep	
890-2030-9	BH16	Total/NA	Solid	8015NM Prep	
890-2030-10	BH16	Total/NA	Solid	8015NM Prep	
890-2030-11	BH17	Total/NA	Solid	8015NM Prep	
890-2030-12	BH17	Total/NA	Solid	8015NM Prep	
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2030-1 MS	BH12	Total/NA	Solid	8015NM Prep	
890-2030-1 MSD	BH12	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015 NM	
890-2030-2	BH12	Total/NA	Solid	8015 NM	
890-2030-3	BH13	Total/NA	Solid	8015 NM	
890-2030-4	BH13	Total/NA	Solid	8015 NM	
890-2030-5	BH14	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC Semi VOA (Continued)

Analysis Batch: 20812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-6	BH14	Total/NA	Solid	8015 NM	
890-2030-7	BH15	Total/NA	Solid	8015 NM	
890-2030-8	BH15	Total/NA	Solid	8015 NM	
890-2030-9	BH16	Total/NA	Solid	8015 NM	
890-2030-10	BH16	Total/NA	Solid	8015 NM	
890-2030-11	BH17	Total/NA	Solid	8015 NM	
890-2030-12	BH17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	DI Leach	
890-2030-2	BH12	Soluble	Solid	DI Leach	
890-2030-3	BH13	Soluble	Solid	DI Leach	
890-2030-4	BH13	Soluble	Solid	DI Leach	
890-2030-5	BH14	Soluble	Solid	DI Leach	
890-2030-6	BH14	Soluble	Solid	DI Leach	
890-2030-7	BH15	Soluble	Solid	DI Leach	
890-2030-8	BH15	Soluble	Solid	DI Leach	
890-2030-9	BH16	Soluble	Solid	DI Leach	
890-2030-10	BH16	Soluble	Solid	DI Leach	
890-2030-11	BH17	Soluble	Solid	DI Leach	
890-2030-12	BH17	Soluble	Solid	DI Leach	
MB 880-20681/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2030-7 MS	BH15	Soluble	Solid	DI Leach	
890-2030-7 MSD	BH15	Soluble	Solid	DI Leach	

Analysis Batch: 20963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	300.0	20681
890-2030-2	BH12	Soluble	Solid	300.0	20681
890-2030-3	BH13	Soluble	Solid	300.0	20681
890-2030-4	BH13	Soluble	Solid	300.0	20681
890-2030-5	BH14	Soluble	Solid	300.0	20681
890-2030-6	BH14	Soluble	Solid	300.0	20681
890-2030-7	BH15	Soluble	Solid	300.0	20681
890-2030-8	BH15	Soluble	Solid	300.0	20681
890-2030-9	BH16	Soluble	Solid	300.0	20681
890-2030-10	BH16	Soluble	Solid	300.0	20681
890-2030-11	BH17	Soluble	Solid	300.0	20681
890-2030-12	BH17	Soluble	Solid	300.0	20681
MB 880-20681/1-A	Method Blank	Soluble	Solid	300.0	20681
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	300.0	20681
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20681
890-2030-7 MS	BH15	Soluble	Solid	300.0	20681
890-2030-7 MSD	BH15	Soluble	Solid	300.0	20681

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 15:30	SC	XEN MID

Client Sample ID: BH12
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 16:06	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:18	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:30	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:41	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:53	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 19:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:18	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:05	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 20:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:41	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 17:53	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 06:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 18:28	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 18:40	SC	XEN MID

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		20			20963	03/05/22 18:52	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2030-1	BH12	Solid	02/28/22 10:30	03/01/22 08:50	2
890-2030-2	BH12	Solid	02/28/22 10:33	03/01/22 08:50	4
890-2030-3	BH13	Solid	02/28/22 11:20	03/01/22 08:50	2
890-2030-4	BH13	Solid	02/28/22 11:25	03/01/22 08:50	4
890-2030-5	BH14	Solid	02/28/22 11:30	03/01/22 08:50	0.5
890-2030-6	BH14	Solid	02/28/22 11:35	03/01/22 08:50	4
890-2030-7	BH15	Solid	02/28/22 11:40	03/01/22 08:50	0.5
890-2030-8	BH15	Solid	02/28/22 11:50	03/01/22 08:50	4
890-2030-9	BH16	Solid	02/28/22 13:20	03/01/22 08:50	2
890-2030-10	BH16	Solid	02/28/22 13:25	03/01/22 08:50	4
890-2030-11	BH17	Solid	02/28/22 14:15	03/01/22 08:50	2
890-2030-12	BH17	Solid	02/28/22 14:20	03/01/22 08:50	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine ☑	
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.2/1.0	Thermometer ID	TNM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-2030 Chain of Custody

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH12	S	2.28.22	10:30	2	1	X	X	X
BH12	S	2.28.22	10:33	4	1	X	X	X
BH13	S	2.28.22	11:20	2	1	X	X	X
BH13	S	2.28.22	11:25	4	1	X	X	X
BH14	S	2.28.22	11:30	0.5	1	X	X	X
BH14	S	2.28.22	11:35	4	1	X	X	X
BH15	S	2.28.22	11:40	0.5	1	X	X	X
BH15	S	2.28.22	11:50	4	1	X	X	X
BH16	S	2.28.22	13:20	2	1	X	X	X
BH16	S	2.28.22	13:25	4	1	X	X	X

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3.1.22 0852	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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3/7/2022

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329 Email		Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine	☑
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):		Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH17	S	2.28.22	14:15	2	1	X	X	X
BH17	S	2.28.22	14:20	4	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

3.1.22

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3.1.22 0850	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/02/22 11:22 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2040-1
Laboratory SDG: 31403360.036.31403360.035
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/14/2022 1:37:54 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Job ID: 890-2040-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2040-1

Receipt
The samples were received on 3/3/2022 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-20924 and analytical batch 880-21381 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH04 (890-2040-7), BH08 (890-2040-16), BH09 (890-2040-17), BH10 (890-2040-19) and BH10 (890-2040-20). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-21026 and analytical batch 880-21137 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-1
Matrix: Solid
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8700**		99.8		mg/Kg			03/09/22 01:31	20

Client Sample ID: BH01

Lab Sample ID: 890-2040-2
Matrix: Solid
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*118*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9220**		99.2		mg/Kg			03/09/22 12:55	20

Client Sample ID: BH02

Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*
o-Terphenyl	*79*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4300**		49.8		mg/Kg			03/09/22 09:22	10

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*
o-Terphenyl	*86*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8350		100		mg/Kg			03/09/22 09:31	20

Client Sample ID: BH03

Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10
Sample Depth: 2

Lab Sample ID: 890-2040-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3310		49.7		mg/Kg			03/09/22 09:40	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH03

Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*
o-Terphenyl	*83*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12600**		99.0		mg/Kg			03/09/22 10:06	20

Client Sample ID: BH04

Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.3**	**F1**	4.96		mg/Kg			03/09/22 16:05	1

Client Sample ID: BH04

Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-8

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*
o-Terphenyl	*81*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.1**		5.00		mg/Kg			03/09/22 16:23	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*302*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*
1,4-Difluorobenzene (Surr)	*273*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*
o-Terphenyl	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH05

Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.80		4.98		mg/Kg			03/09/22 16:29	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*
o-Terphenyl	*73*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.00		mg/Kg			03/09/22 16:52	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-11
Matrix: Solid
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*
o-Terphenyl	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			03/09/22 16:58	1

Client Sample ID: BH06

Lab Sample ID: 890-2040-12
Matrix: Solid
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-12
Matrix: Solid
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*75*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.4**		5.04		mg/Kg			03/09/22 17:16	1

Client Sample ID: BH07

Lab Sample ID: 890-2040-13
Matrix: Solid
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-13

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.01**		4.98		mg/Kg			03/09/22 17:21	1

Client Sample ID: BH07

Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-14

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		5.01		mg/Kg			03/09/22 17:27	1

Client Sample ID: BH08

Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-15

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.90		4.99		mg/Kg			03/09/22 17:33	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH08

Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-16

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.4*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*
o-Terphenyl	*2*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.1**		4.95		mg/Kg			03/09/22 17:39	1

Client Sample ID: BH09

Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*
o-Terphenyl	*58*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		5.00		mg/Kg			03/09/22 17:45	1

Client Sample ID: BH09

Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-18

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Lab Sample ID: 890-2040-18
Matrix: Solid
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Diesel Range Organics (Over C10-C28)	<49.8	U *-	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		5.05		mg/Kg			03/09/22 18:03	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-19
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*
o-Terphenyl	*62*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH10

Lab Sample ID: 890-2040-19
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.95**		4.97		mg/Kg			03/09/22 18:09	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-20
Matrix: Solid
Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.6**		50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Diesel Range Organics (Over C10-C28)	**70.6**	***-**	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.03*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.6**		4.98		mg/Kg			03/09/22 18:26	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	103	98										
890-2040-1 MS	BH01	100	99										
890-2040-1 MSD	BH01	101	99										
890-2040-2	BH01	105	97										
890-2040-3	BH02	101	96										
890-2040-4	BH02	109	101										
890-2040-5	BH03	108	99										
890-2040-6	BH03	108	98										
890-2040-7	BH04	107	99										
890-2040-8	BH04	110	101										
890-2040-9	BH05	302 S1+	273 S1+										
890-2040-10	BH05	108	98										
890-2040-11	BH06	109	100										
890-2040-12	BH06	108	98										
890-2040-13	BH07	105	97										
890-2040-14	BH07	109	98										
890-2040-15	BH08	108	98										
890-2040-16	BH08	106	98										
890-2040-17	BH09	110	102										
890-2040-18	BH09	112	98										
890-2040-19	BH10	103	98										
890-2040-20	BH10	104	98										
LCS 880-20908/1-A	Lab Control Sample	99	100										
LCSD 880-20908/2-A	Lab Control Sample Dup	99	100										
MB 880-20906/5-A	Method Blank	99	93										
MB 880-20908/5-A	Method Blank	95	93										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	98	105										
890-2040-1 MS	BH01	108	107										
890-2040-1 MSD	BH01	112	107										
890-2040-2	BH01	118	123										
890-2040-3	BH02	74	79										
890-2040-4	BH02	82	86										
890-2040-5	BH03	72	78										
890-2040-6	BH03	77	83										
890-2040-7	BH04	65 S1-	65 S1-										
890-2040-8	BH04	80	81										
890-2040-9	BH05	78	72										
890-2040-10	BH05	70	73										
890-2040-11	BH06	79	77										

Surrogate Summary

Client: WSP USA Inc.
Job ID: 890-2040-1
Project/Site: RDU 11
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
890-2040-12	BH06	75	78								
890-2040-13	BH07	87	91								
890-2040-14	BH07	98	101								
890-2040-15	BH08	85	88								
890-2040-16	BH08	0.4 S1-	2 S1-								
890-2040-17	BH09	61 S1-	58 S1-								
890-2040-18	BH09	87	90								
890-2040-19	BH10	61 S1-	62 S1-								
890-2040-20	BH10	0.03 S1-	91								
LCS 880-20924/2-A	Lab Control Sample	101	103								
LCSD 880-20924/3-A	Lab Control Sample Dup	113	115								
MB 880-20924/1-A	Method Blank	101	109								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20906/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*

Lab Sample ID: MB 880-20908/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*

Lab Sample ID: LCS 880-20908/1-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1006		mg/Kg		101	70 - 130
Toluene	0.100	0.09711		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09592		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1986		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09573		mg/Kg		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	2	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09990		mg/Kg		100	70 - 130	3	35
Ethylbenzene			0.100	0.09791		mg/Kg		98	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2036		mg/Kg		102	70 - 130	2	35
o-Xylene			0.100	0.09864		mg/Kg		99	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.1074		mg/Kg		108	70 - 130
Toluene	<0.00199	U	0.0990	0.1038		mg/Kg		105	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1022		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2108		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0990	0.1024		mg/Kg		103	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00199	U	0.0994	0.09897		mg/Kg		100	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0994	0.09699		mg/Kg		98	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2012		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00199	U	0.0994	0.09863		mg/Kg		99	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*

Lab Sample ID: LCS 880-20924/2-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	962.5		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	686.5	*-	mg/Kg		69	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-20924/3-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1041		mg/Kg		104	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	768.2		mg/Kg		77	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1019		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	1000	801.0		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1099		mg/Kg		107	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U *-	998	821.3		mg/Kg		80	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21026/1-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 15:48	1

Lab Sample ID: LCS 880-21026/2-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.2		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-21026/3-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	243.8		mg/Kg		98	90 - 110	5	20

Lab Sample ID: 890-2040-7 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	45.3	F1	248	261.4	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-2040-7 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	45.3	F1	248	262.7	F1	mg/Kg		88	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2040-17 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.4		250	281.4		mg/Kg		108	90 - 110

Lab Sample ID: 890-2040-17 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.4		250	273.4		mg/Kg		105	90 - 110	3	20

Lab Sample ID: MB 880-21025/1-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 01:05	1

Lab Sample ID: LCS 880-21025/2-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-21025/3-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.3		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8700		4990	13740		mg/Kg		101	90 - 110

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8700		4990	13490		mg/Kg		96	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA

Prep Batch: 20906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20906/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 20908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	5035	
890-2040-2	BH01	Total/NA	Solid	5035	
890-2040-3	BH02	Total/NA	Solid	5035	
890-2040-4	BH02	Total/NA	Solid	5035	
890-2040-5	BH03	Total/NA	Solid	5035	
890-2040-6	BH03	Total/NA	Solid	5035	
890-2040-7	BH04	Total/NA	Solid	5035	
890-2040-8	BH04	Total/NA	Solid	5035	
890-2040-9	BH05	Total/NA	Solid	5035	
890-2040-10	BH05	Total/NA	Solid	5035	
890-2040-11	BH06	Total/NA	Solid	5035	
890-2040-12	BH06	Total/NA	Solid	5035	
890-2040-13	BH07	Total/NA	Solid	5035	
890-2040-14	BH07	Total/NA	Solid	5035	
890-2040-15	BH08	Total/NA	Solid	5035	
890-2040-16	BH08	Total/NA	Solid	5035	
890-2040-17	BH09	Total/NA	Solid	5035	
890-2040-18	BH09	Total/NA	Solid	5035	
890-2040-19	BH10	Total/NA	Solid	5035	
890-2040-20	BH10	Total/NA	Solid	5035	
MB 880-20908/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2040-1 MS	BH01	Total/NA	Solid	5035	
890-2040-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8021B	20908
890-2040-2	BH01	Total/NA	Solid	8021B	20908
890-2040-3	BH02	Total/NA	Solid	8021B	20908
890-2040-4	BH02	Total/NA	Solid	8021B	20908
890-2040-5	BH03	Total/NA	Solid	8021B	20908
890-2040-6	BH03	Total/NA	Solid	8021B	20908
890-2040-7	BH04	Total/NA	Solid	8021B	20908
890-2040-8	BH04	Total/NA	Solid	8021B	20908
890-2040-9	BH05	Total/NA	Solid	8021B	20908
890-2040-10	BH05	Total/NA	Solid	8021B	20908
890-2040-11	BH06	Total/NA	Solid	8021B	20908
890-2040-12	BH06	Total/NA	Solid	8021B	20908
890-2040-13	BH07	Total/NA	Solid	8021B	20908
890-2040-14	BH07	Total/NA	Solid	8021B	20908
890-2040-15	BH08	Total/NA	Solid	8021B	20908
890-2040-16	BH08	Total/NA	Solid	8021B	20908
890-2040-17	BH09	Total/NA	Solid	8021B	20908
890-2040-18	BH09	Total/NA	Solid	8021B	20908
890-2040-19	BH10	Total/NA	Solid	8021B	20908

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA (Continued)

Analysis Batch: 21187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-20	BH10	Total/NA	Solid	8021B	20908
MB 880-20906/5-A	Method Blank	Total/NA	Solid	8021B	20906
MB 880-20908/5-A	Method Blank	Total/NA	Solid	8021B	20908
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	8021B	20908
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20908
890-2040-1 MS	BH01	Total/NA	Solid	8021B	20908
890-2040-1 MSD	BH01	Total/NA	Solid	8021B	20908

Analysis Batch: 21336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	Total BTEX	
890-2040-2	BH01	Total/NA	Solid	Total BTEX	
890-2040-3	BH02	Total/NA	Solid	Total BTEX	
890-2040-4	BH02	Total/NA	Solid	Total BTEX	
890-2040-5	BH03	Total/NA	Solid	Total BTEX	
890-2040-6	BH03	Total/NA	Solid	Total BTEX	
890-2040-7	BH04	Total/NA	Solid	Total BTEX	
890-2040-8	BH04	Total/NA	Solid	Total BTEX	
890-2040-9	BH05	Total/NA	Solid	Total BTEX	
890-2040-10	BH05	Total/NA	Solid	Total BTEX	
890-2040-11	BH06	Total/NA	Solid	Total BTEX	
890-2040-12	BH06	Total/NA	Solid	Total BTEX	
890-2040-13	BH07	Total/NA	Solid	Total BTEX	
890-2040-14	BH07	Total/NA	Solid	Total BTEX	
890-2040-15	BH08	Total/NA	Solid	Total BTEX	
890-2040-16	BH08	Total/NA	Solid	Total BTEX	
890-2040-17	BH09	Total/NA	Solid	Total BTEX	
890-2040-18	BH09	Total/NA	Solid	Total BTEX	
890-2040-19	BH10	Total/NA	Solid	Total BTEX	
890-2040-20	BH10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015NM Prep	
890-2040-2	BH01	Total/NA	Solid	8015NM Prep	
890-2040-3	BH02	Total/NA	Solid	8015NM Prep	
890-2040-4	BH02	Total/NA	Solid	8015NM Prep	
890-2040-5	BH03	Total/NA	Solid	8015NM Prep	
890-2040-6	BH03	Total/NA	Solid	8015NM Prep	
890-2040-7	BH04	Total/NA	Solid	8015NM Prep	
890-2040-8	BH04	Total/NA	Solid	8015NM Prep	
890-2040-9	BH05	Total/NA	Solid	8015NM Prep	
890-2040-10	BH05	Total/NA	Solid	8015NM Prep	
890-2040-11	BH06	Total/NA	Solid	8015NM Prep	
890-2040-12	BH06	Total/NA	Solid	8015NM Prep	
890-2040-13	BH07	Total/NA	Solid	8015NM Prep	
890-2040-14	BH07	Total/NA	Solid	8015NM Prep	
890-2040-15	BH08	Total/NA	Solid	8015NM Prep	
890-2040-16	BH08	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Prep Batch: 20924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-17	BH09	Total/NA	Solid	8015NM Prep	
890-2040-18	BH09	Total/NA	Solid	8015NM Prep	
890-2040-19	BH10	Total/NA	Solid	8015NM Prep	
890-2040-20	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2040-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2040-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015B NM	20924
890-2040-2	BH01	Total/NA	Solid	8015B NM	20924
890-2040-3	BH02	Total/NA	Solid	8015B NM	20924
890-2040-4	BH02	Total/NA	Solid	8015B NM	20924
890-2040-5	BH03	Total/NA	Solid	8015B NM	20924
890-2040-6	BH03	Total/NA	Solid	8015B NM	20924
890-2040-7	BH04	Total/NA	Solid	8015B NM	20924
890-2040-8	BH04	Total/NA	Solid	8015B NM	20924
890-2040-9	BH05	Total/NA	Solid	8015B NM	20924
890-2040-10	BH05	Total/NA	Solid	8015B NM	20924
890-2040-11	BH06	Total/NA	Solid	8015B NM	20924
890-2040-12	BH06	Total/NA	Solid	8015B NM	20924
890-2040-13	BH07	Total/NA	Solid	8015B NM	20924
890-2040-14	BH07	Total/NA	Solid	8015B NM	20924
890-2040-15	BH08	Total/NA	Solid	8015B NM	20924
890-2040-16	BH08	Total/NA	Solid	8015B NM	20924
890-2040-17	BH09	Total/NA	Solid	8015B NM	20924
890-2040-18	BH09	Total/NA	Solid	8015B NM	20924
890-2040-19	BH10	Total/NA	Solid	8015B NM	20924
890-2040-20	BH10	Total/NA	Solid	8015B NM	20924
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015B NM	20924
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20924
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20924
890-2040-1 MS	BH01	Total/NA	Solid	8015B NM	20924
890-2040-1 MSD	BH01	Total/NA	Solid	8015B NM	20924

Analysis Batch: 21529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015 NM	
890-2040-2	BH01	Total/NA	Solid	8015 NM	
890-2040-3	BH02	Total/NA	Solid	8015 NM	
890-2040-4	BH02	Total/NA	Solid	8015 NM	
890-2040-5	BH03	Total/NA	Solid	8015 NM	
890-2040-6	BH03	Total/NA	Solid	8015 NM	
890-2040-7	BH04	Total/NA	Solid	8015 NM	
890-2040-8	BH04	Total/NA	Solid	8015 NM	
890-2040-9	BH05	Total/NA	Solid	8015 NM	
890-2040-10	BH05	Total/NA	Solid	8015 NM	
890-2040-11	BH06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Analysis Batch: 21529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-12	BH06	Total/NA	Solid	8015 NM	
890-2040-13	BH07	Total/NA	Solid	8015 NM	
890-2040-14	BH07	Total/NA	Solid	8015 NM	
890-2040-15	BH08	Total/NA	Solid	8015 NM	
890-2040-16	BH08	Total/NA	Solid	8015 NM	
890-2040-17	BH09	Total/NA	Solid	8015 NM	
890-2040-18	BH09	Total/NA	Solid	8015 NM	
890-2040-19	BH10	Total/NA	Solid	8015 NM	
890-2040-20	BH10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	DI Leach	
890-2040-2	BH01	Soluble	Solid	DI Leach	
890-2040-3	BH02	Soluble	Solid	DI Leach	
890-2040-4	BH02	Soluble	Solid	DI Leach	
890-2040-5	BH03	Soluble	Solid	DI Leach	
890-2040-6	BH03	Soluble	Solid	DI Leach	
MB 880-21025/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-1 MS	BH01	Soluble	Solid	DI Leach	
890-2040-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 21026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	DI Leach	
890-2040-8	BH04	Soluble	Solid	DI Leach	
890-2040-9	BH05	Soluble	Solid	DI Leach	
890-2040-10	BH05	Soluble	Solid	DI Leach	
890-2040-11	BH06	Soluble	Solid	DI Leach	
890-2040-12	BH06	Soluble	Solid	DI Leach	
890-2040-13	BH07	Soluble	Solid	DI Leach	
890-2040-14	BH07	Soluble	Solid	DI Leach	
890-2040-15	BH08	Soluble	Solid	DI Leach	
890-2040-16	BH08	Soluble	Solid	DI Leach	
890-2040-17	BH09	Soluble	Solid	DI Leach	
890-2040-18	BH09	Soluble	Solid	DI Leach	
890-2040-19	BH10	Soluble	Solid	DI Leach	
890-2040-20	BH10	Soluble	Solid	DI Leach	
MB 880-21026/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-7 MS	BH04	Soluble	Solid	DI Leach	
890-2040-7 MSD	BH04	Soluble	Solid	DI Leach	
890-2040-17 MS	BH09	Soluble	Solid	DI Leach	
890-2040-17 MSD	BH09	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

HPLC/IC

Analysis Batch: 21137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	300.0	21026
890-2040-8	BH04	Soluble	Solid	300.0	21026
890-2040-9	BH05	Soluble	Solid	300.0	21026
890-2040-10	BH05	Soluble	Solid	300.0	21026
890-2040-11	BH06	Soluble	Solid	300.0	21026
890-2040-12	BH06	Soluble	Solid	300.0	21026
890-2040-13	BH07	Soluble	Solid	300.0	21026
890-2040-14	BH07	Soluble	Solid	300.0	21026
890-2040-15	BH08	Soluble	Solid	300.0	21026
890-2040-16	BH08	Soluble	Solid	300.0	21026
890-2040-17	BH09	Soluble	Solid	300.0	21026
890-2040-18	BH09	Soluble	Solid	300.0	21026
890-2040-19	BH10	Soluble	Solid	300.0	21026
890-2040-20	BH10	Soluble	Solid	300.0	21026
MB 880-21026/1-A	Method Blank	Soluble	Solid	300.0	21026
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	300.0	21026
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21026
890-2040-7 MS	BH04	Soluble	Solid	300.0	21026
890-2040-7 MSD	BH04	Soluble	Solid	300.0	21026
890-2040-17 MS	BH09	Soluble	Solid	300.0	21026
890-2040-17 MSD	BH09	Soluble	Solid	300.0	21026

Analysis Batch: 21139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	300.0	21025
890-2040-2	BH01	Soluble	Solid	300.0	21025
890-2040-3	BH02	Soluble	Solid	300.0	21025
890-2040-4	BH02	Soluble	Solid	300.0	21025
890-2040-5	BH03	Soluble	Solid	300.0	21025
890-2040-6	BH03	Soluble	Solid	300.0	21025
MB 880-21025/1-A	Method Blank	Soluble	Solid	300.0	21025
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	300.0	21025
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21025
890-2040-1 MS	BH01	Soluble	Solid	300.0	21025
890-2040-1 MSD	BH01	Soluble	Solid	300.0	21025

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 22:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 01:31	CH	XEN MID

Client Sample ID: BH01
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 12:55	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:22	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 09:31	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:40	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 10:06	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:05	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:05	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:23	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:29	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 02:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:52	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:58	CH	XEN MID

Client Sample ID: BH06
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:16	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:21	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:27	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:39	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:01	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:45	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:03	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:09	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 06:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:26	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2040-1	BH01	Solid	03/03/22 11:05	03/03/22 15:10	2
890-2040-2	BH01	Solid	03/03/22 11:07	03/03/22 15:10	4
890-2040-3	BH02	Solid	03/03/22 11:10	03/03/22 15:10	0.5
890-2040-4	BH02	Solid	03/03/22 11:20	03/03/22 15:10	4
890-2040-5	BH03	Solid	03/03/22 11:37	03/03/22 15:10	2
890-2040-6	BH03	Solid	03/03/22 11:40	03/03/22 15:10	4
890-2040-7	BH04	Solid	03/03/22 09:25	03/03/22 15:10	0.5
890-2040-8	BH04	Solid	03/03/22 09:30	03/03/22 15:10	4
890-2040-9	BH05	Solid	03/03/22 09:35	03/03/22 15:10	0.5
890-2040-10	BH05	Solid	03/03/22 09:40	03/03/22 15:10	4
890-2040-11	BH06	Solid	03/03/22 09:45	03/03/22 15:10	0.5
890-2040-12	BH06	Solid	03/03/22 09:50	03/03/22 15:10	4
890-2040-13	BH07	Solid	03/03/22 09:55	03/03/22 15:10	0.5
890-2040-14	BH07	Solid	03/03/22 10:00	03/03/22 15:10	4
890-2040-15	BH08	Solid	03/03/22 10:05	03/03/22 15:10	0.5
890-2040-16	BH08	Solid	03/03/22 10:10	03/03/22 15:10	4
890-2040-17	BH09	Solid	03/03/22 10:15	03/03/22 15:10	0.5
890-2040-18	BH09	Solid	03/03/22 10:25	03/03/22 15:10	4
890-2040-19	BH10	Solid	03/03/22 10:30	03/03/22 15:10	0.5
890-2040-20	BH10	Solid	03/03/22 10:35	03/03/22 15:10	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	X
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.7 1.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-002		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	3.2.22	11:05	2	1	X	X	X
BH01	S	3.2.22	11:07	4	1	X	X	X
BH02	S	3.2.22	11:10	0.5	1	X	X	X
BH02	S	3.2.22	11:20	4	1	X	X	X
BH03	S	3.2.22	11:37	2	1	X	X	X
BH03	S	3.2.22	11:40	4	1	X	X	X
BH04	S	3.3.22	9:25	0.5	1	X	X	X
BH04	S	3.3.22	9:30	4	1	X	X	X
BH05	S	3.3.22	9:35	0.5	1	X	X	X
BH05	S	3.3.22	9:40	4	1	X	X	X

ANALYSIS REQUEST

890-2040 Chain of Custody

Work Order Notes

CC: 113763100
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/3/22 3:40			
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	☒
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.2 / 1.0	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

CC: 113763100
AFE:
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH06	S	3.3.22	9:45	0.5	1	X	X	X
BH06	S	3.3.22	9:50	4	1	X	X	X
BH07	S	3.3.22	9:55	0.5	1	X	X	X
BH07	S	3.3.22	10:00	4	1	X	X	X
BH08	S	3.3.22	10:05	0.5	1	X	X	X
BH08	S	3.3.22	10:10	4	1	X	X	X
BH09	S	3.3.22	10:15	0.5	1	X	X	X
BH09	S	3.3.22	10:25	4	1	X	X	X
BH10	S	3.3.22	10:30	0.5	1	X	X	X
BH10	S	3.3.22	10:35	4	1	X	X	X

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/3/22 3:19	2			
3				4			
5				6			

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-652 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL	M Hexane
B NaOH	N None
C - Zn Acetate	O - AsNaO2
D Nitric Acid	P Na2O4S
E - NaHSO4	Q - Na2SO3
F MeOH	R - Na2S2O3
G Amchlor	S H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U Acetone
J - DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH01 (890-2040-1)	3/3/22	11 05 Mountain		Solid			X	X	X	X	X	1	
BH01 (890-2040-2)	3/3/22	11 07 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-3)	3/3/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-4)	3/3/22	11 20 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-5)	3/3/22	11 37 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-8)	3/3/22	11 40 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-7)	3/3/22	09 25 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-8)	3/3/22	09 30 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-2040-9)	3/3/22	09 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: KF 3.4.22

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Olan Cup 3 4 22			KF	3.4.22 13:00	Xenco
Relinquished by	Date/Time	Company	Received by	Date/Time 13:15	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-652 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
				Preservation Code:									
BH05 (890-2040-10)	3/3/22	09 40 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-11)	3/3/22	09 45 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-12)	3/3/22	09 50 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-13)	3/3/22	09 55 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-14)	3/3/22	10 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-15)	3/3/22	10 05 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-16)	3/3/22	10 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-17)	3/3/22	10 15 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-18)	3/3/22	10 25 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A HCL	M - Hexane
B - NaOH	N None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W - pH 4-5
L EDA	Z other (specify)

Other:

Note. Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification

Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ____ Months*

Deliverable Requested I, II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time.	Method of Shipment:

Relinquished by: Cloe Cof 3422	Date/Time	Company	Received by: KJ	Date/Time: 3 4 22 13:15	Company: Xenco
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver 06/08/2021

3/14/2022

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-652 3
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 3 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M Hexane
B NaOH	N None
C Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I - Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH10 (890-2040-19)	3/3/22	10 30 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2040-20)	3/3/22	10 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:		
Relinquished by: Clae Cap 3422	Date/Time	Company	Received by:	Date/Time 3422 1315	Company XENCO
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 03/04/22 01:21 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 95617
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. At this time, the largest variance the OCD can grant is 500 ft2 for confirmation samples. Sidewall and floor samples should represent no more than 500 ft2. The work will need to occur in 90 days after the work plan has been approved.	5/4/2022

APPENDIX J

Closure Request Report – Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Environmental & Safety Solutions, Inc.

CLOSURE REQUEST REPORT

Ross Draw Unit #011

Eddy County, New Mexico

Incident Numbers:

nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755

Prepared For:

WPX Energy Permian, LLC

5315 Buena Vista Dr.

Carlsbad, NM 88220

Carlsbad ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette

SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Report (CRR) detailing corrective actions and subsequent soil sampling events as proposed in an approved Remediation Work Plan (RWP), performed for four inadvertent releases of crude oil and/or produced water at the Ross Draw Unit #011 (Site). Based on the completed remedial actions and laboratory analytical results from recent soil sampling events, WPX is requesting No Further Action (NFA) at the Site.

SITE LOCATION AND RELEASE BACKGROUNDS

The Site is located in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.022210°, -103.867013°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM) (**Figure 1** in **Appendix A**).

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

As originally documented in the RWP, four inadvertent reportable spill incidents occurred between April 20, 2017, and January 4, 2022, and released approximately 94 barrels (bbls) of produced water and/or crude oil at the Site, of which approximately 40 bbls of fluids were successfully recovered. WPX reported the releases to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141s (Form C-141) between April 21, 2017, and January 10, 2022.

The RWP proposed corrective actions to address identified residual soil impacts exceeding the applicable Site Closure Criteria. The RWP was received by the NMOCD on April 4, 2022, and approved with the following conditions:

- "*Horizontal delineation of the releases will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts. Base and sidewalls confirmation samples must be collected and analyzed for parameters listed in Table I of 19.15.29.12 NMAC.*"
- *The OCD approves a confirmation sample size variance of up to but no more than 400 square feet per sample*."

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As previously described in the approved RWP, the Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to ground water and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

All potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used to determine the site characterization are included in **Figure 1A**, **Figure 1B**, and **Figure 1C** in **Appendix A**. Referenced well records are provided as **Appendix B**.

Based on the results from the desktop review detailed in the approved RWP, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria†
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg
TPH-Gasoline Range Organics (GRO) + TPH-Diesel Range Organics (DRO)	EPA 8021B	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

†*The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13*.

EXCAVATION SOIL SAMPLING ACTIVITIES

nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Between October 6, 2023, and October 30, 2023, excavation activities were performed via mechanical equipment to address residual impacts, which resulted in two separate excavations. Excavation activities were directed by referencing delineation laboratory analytical results documented in the RWP and field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips.

Following the removal of impacted soil, Etech collected 5-point composite confirmation soil samples from the floors (FS01 through FS44) and sidewalls (SW01 through SW21) of the excavations at the approved sampling frequency of 400 square feet. The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. The samples were then placed into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech, Inc. in Farmington, New Mexico, for analysis of the COCs.

Approximately 4,380 cubic yards of impacted soil removed from the Site was transported to R360 Antelope Draw in Jal, New Mexico under WPX approved manifests. Upon receipt of final confirmation excavation soil samples results, the excavations were backfilled with clean, locally sourced soil and the Site was restored to “as close to its original state” as possible. The locations of confirmation excavation soil samples are shown in **Figure 2A** and **Figure 2B** in **Appendix A**. Photographic documentation of excavation and restoration activities is included in **Appendix C**.

EXCAVATION LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final confirmation excavation soil samples indicated all analyzed COCs were below the applicable Site Closure Criteria and/or reclamation standard. As such, the confirmation excavation sidewall soil samples sufficiently defined the horizontal periphery of impacts. Laboratory analytical results are summarized in **Table 1** included in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

CLOSURE REQUEST

Based on laboratory analytical results for final confirmation excavation soil samples, WPX believes that residual soil impacts associated with the four inadvertent releases have been excavated and removed from the Site. The remediation areas have been re-seeded with BLM Seed Mix #2 and hand-broadcasted to match vegetative conditions surrounding the Site. WPX also believes the completed remedial actions meet the requirements set forth in NMAC 19.15.29.13 regulations in order to be protective of human health, the environment and groundwater. As a result, NFA appears warranted at this time, and WPX requests Closure of this CRR associated with Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755, respectively.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (432) 305-6413 or joseph@etechenv.com or Erick Herrera (432) 305-6416 or erick@etechenv.com. **Appendix G** provides correspondence email notification receipts associated with the subject release.

Sincerely,
Etech Environmental and Safety Solutions, Inc.

Erick Herrera
Staff Geologist

Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

Appendix A: Figure 1: Site Map
Figure 1A: Site Characterization Map – Groundwater
Figure 1B: Site Characterization Map – Surficial Receptors
Figure 1C: Site Characterization Map – Subsurface Receptors
Figure 2A: Excavation Soil Sample Locations
Figure 2B: Excavation Soil Sample Locations

Appendix B: Referenced Well Records

Appendix C: Photographic Logs

Appendix D: Tables

Appendix E: Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix F: NMOCD Notifications

Appendix G: Approved Remediation Work Plan

APPENDIX A

Figures

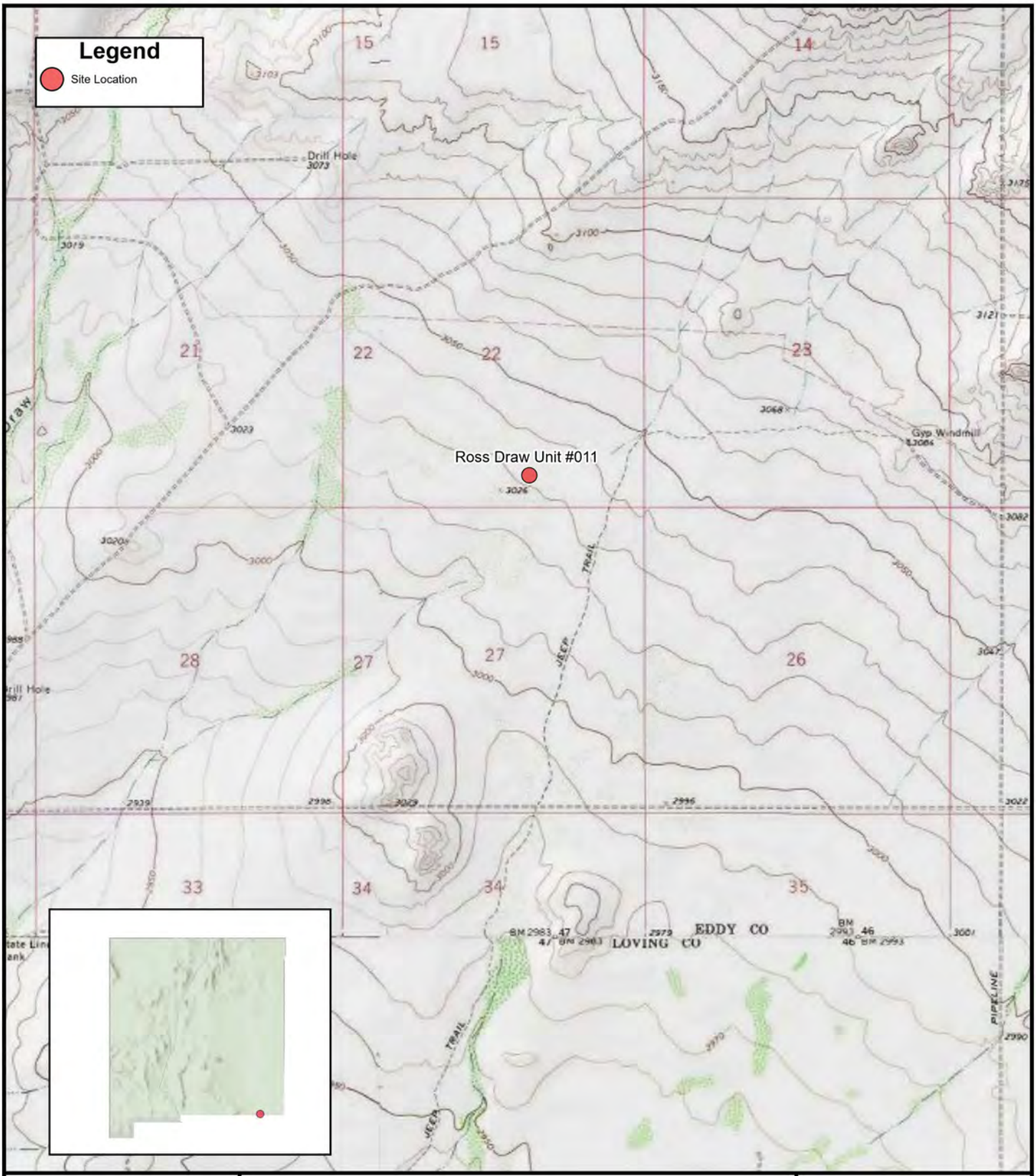


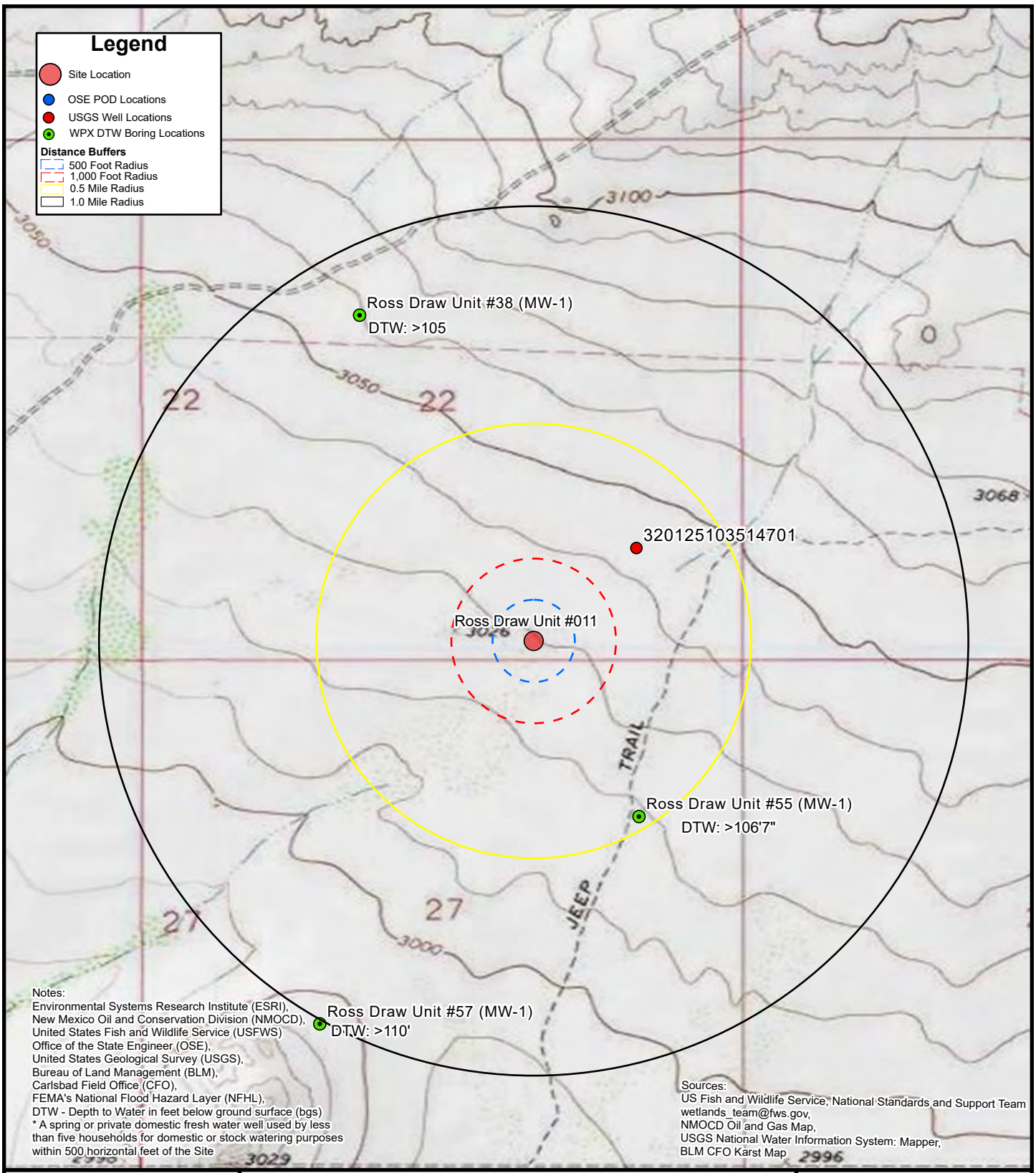
FIGURE 1

Site Location Map

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 1,500 3,000 Feet



Notes:
Environmental Systems Research Institute (ESRI),
New Mexico Oil and Conservation Division (NMOCD),
United States Fish and Wildlife Service (USFWS)
Office of the State Engineer (OSE),
United States Geological Survey (USGS),
Bureau of Land Management (BLM),
Carlsbad Field Office (CFO),
FEMA's National Flood Hazard Layer (NFHL),
DTW - Depth to Water in feet below ground surface (bgs)
* A spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes within 500 horizontal feet of the Site

Sources:
US Fish and Wildlife Service, National Standards and Support Team wetlands_team@fws.gov,
NMOCD Oil and Gas Map,
USGS National Water Information System: Mapper,
BLM CFO Karst Map

eTECH

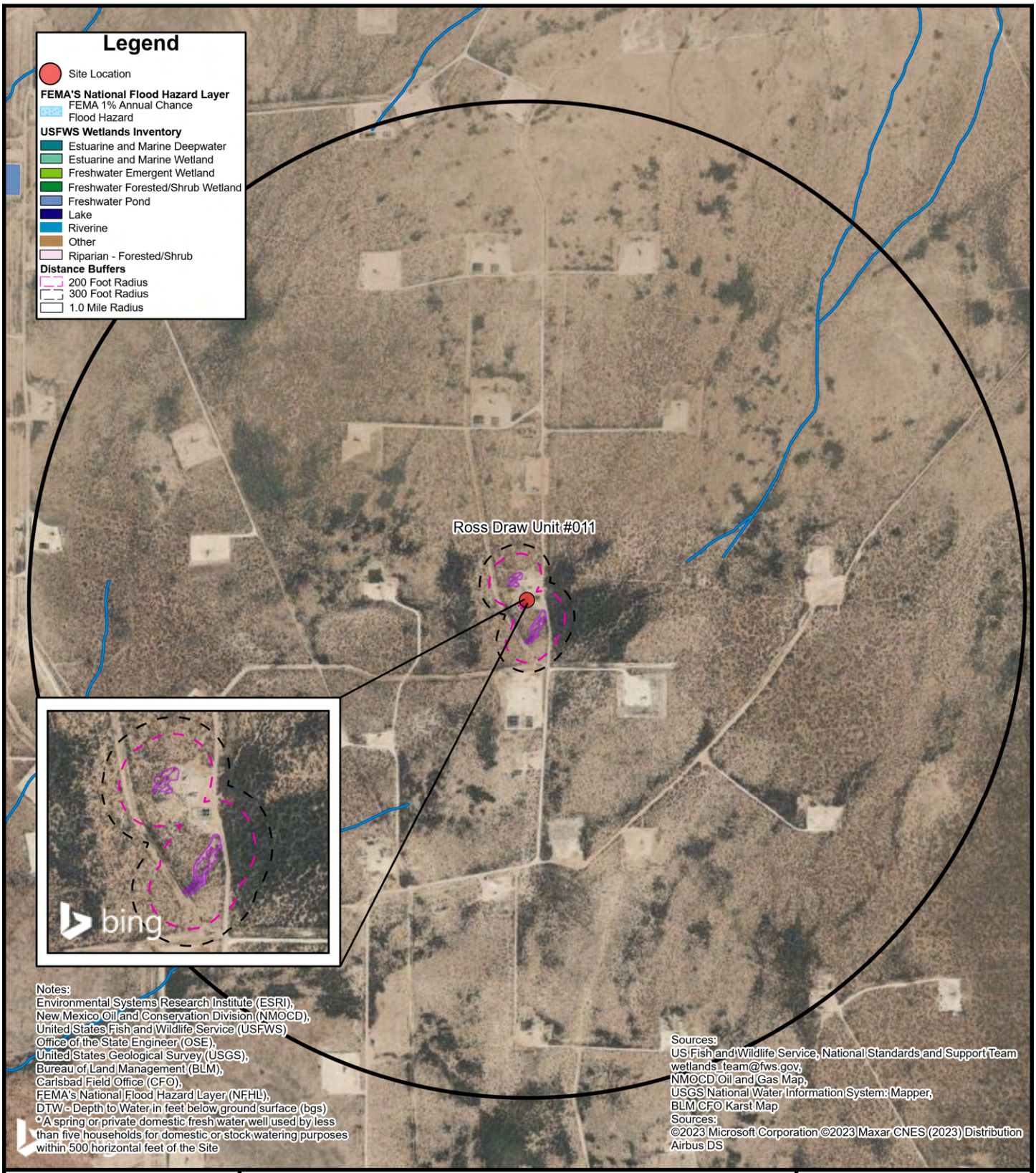
FIGURE 1A

Site Characterization Map
Groundwater

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 500 1,000 Feet



eTECH

FIGURE 1B

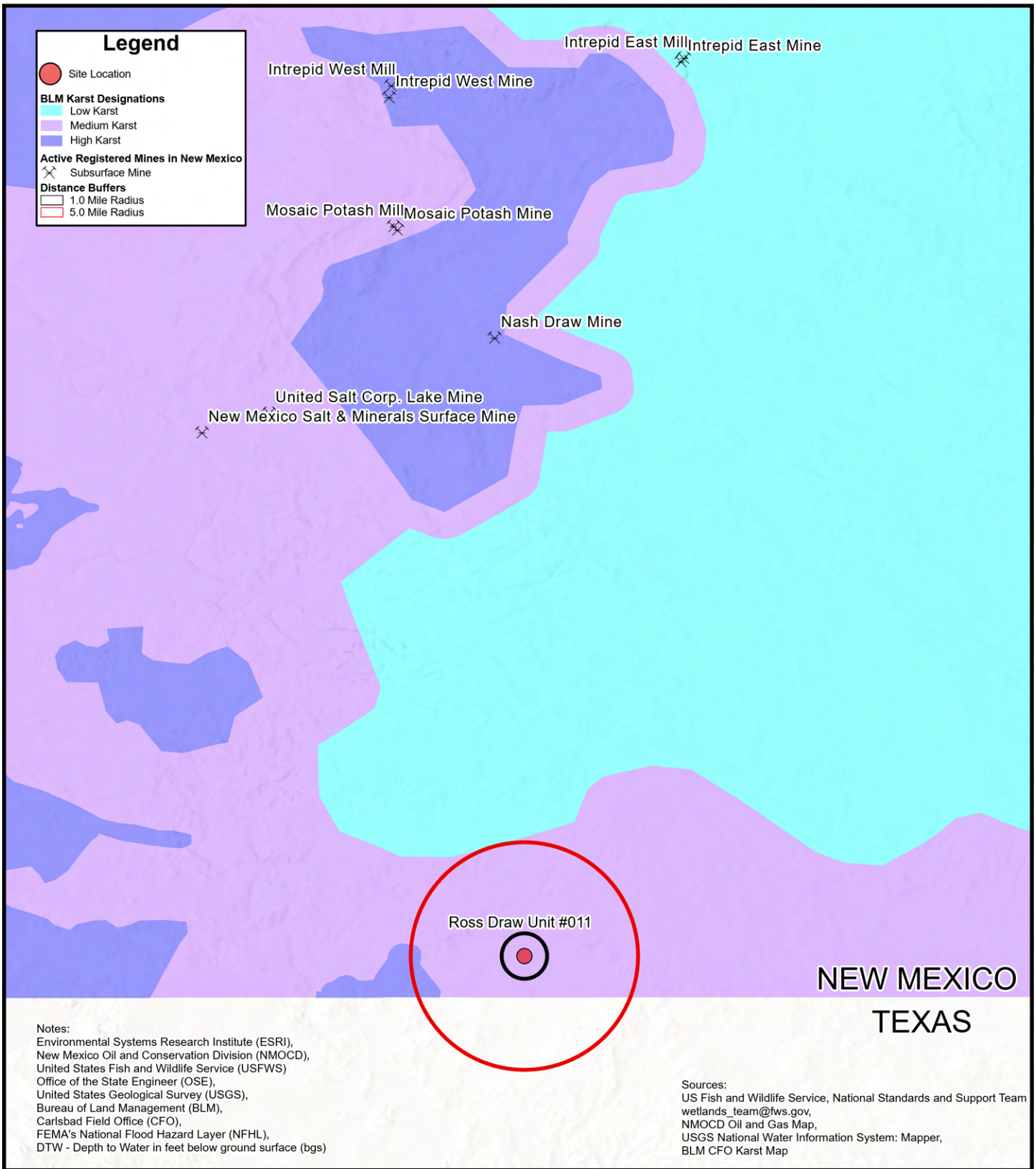
Site Characterization Map

Surficial Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 500 1,000 Feet



Notes:
Environmental Systems Research Institute (ESRI),
New Mexico Oil and Conservation Division (NMOCD),
United States Fish and Wildlife Service (USFWS)
Office of the State Engineer (OSE),
United States Geological Survey (USGS),
Bureau of Land Management (BLM),
Carlsbad Field Office (CFO),
FEMA's National Flood Hazard Layer (NFHL),
DTW - Depth to Water in feet below ground surface (bgs)

Sources:
US Fish and Wildlife Service, National Standards and Support Team
wetlands_team@fws.gov,
NMOCD Oil and Gas Map,
USGS National Water Information System: Mapper,
BLM CFO Karst Map

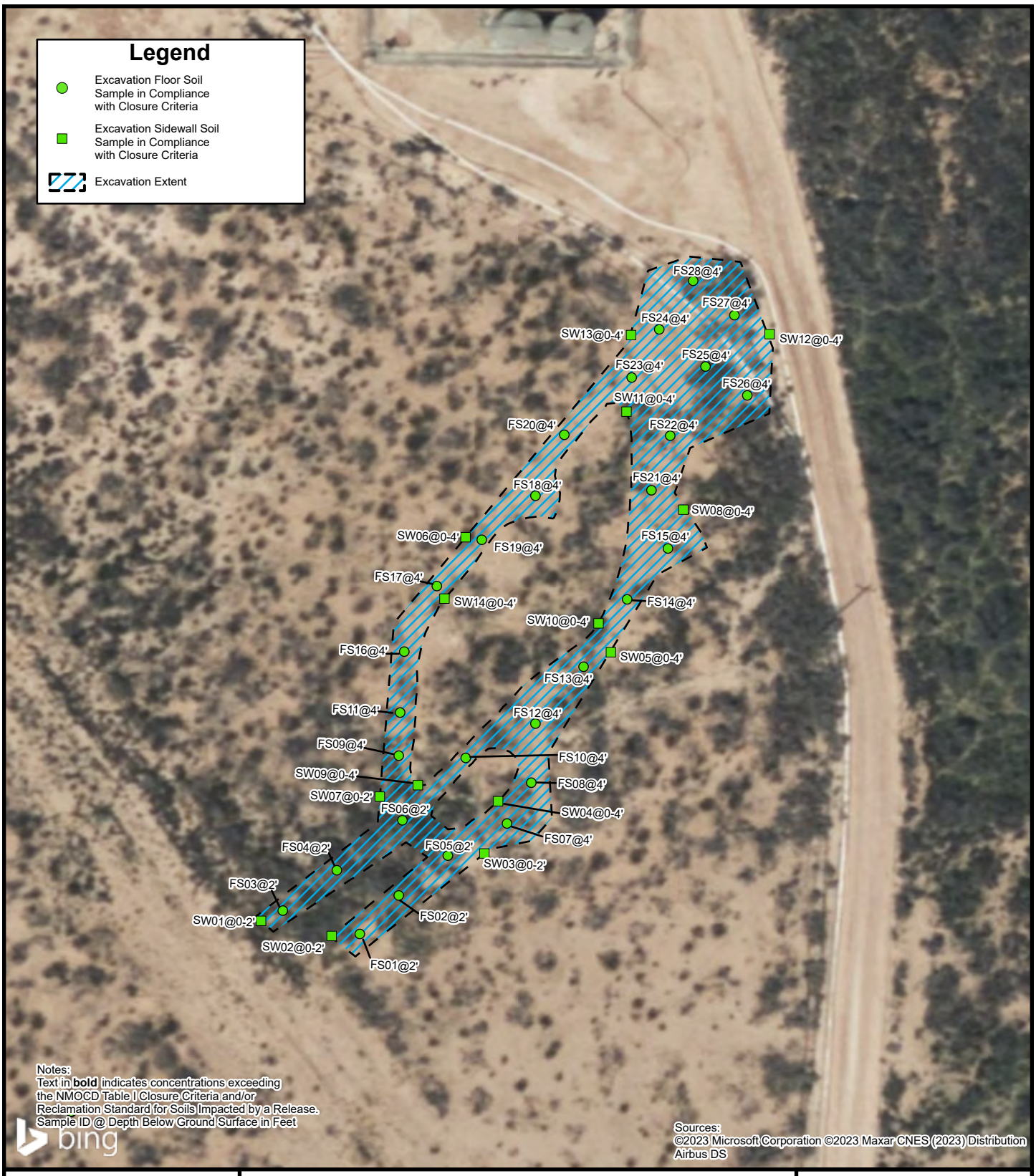
eTECH

FIGURE 1C
Site Characterization Map
Subsurface Receptors

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 12,500 25,000 Feet



eTECH

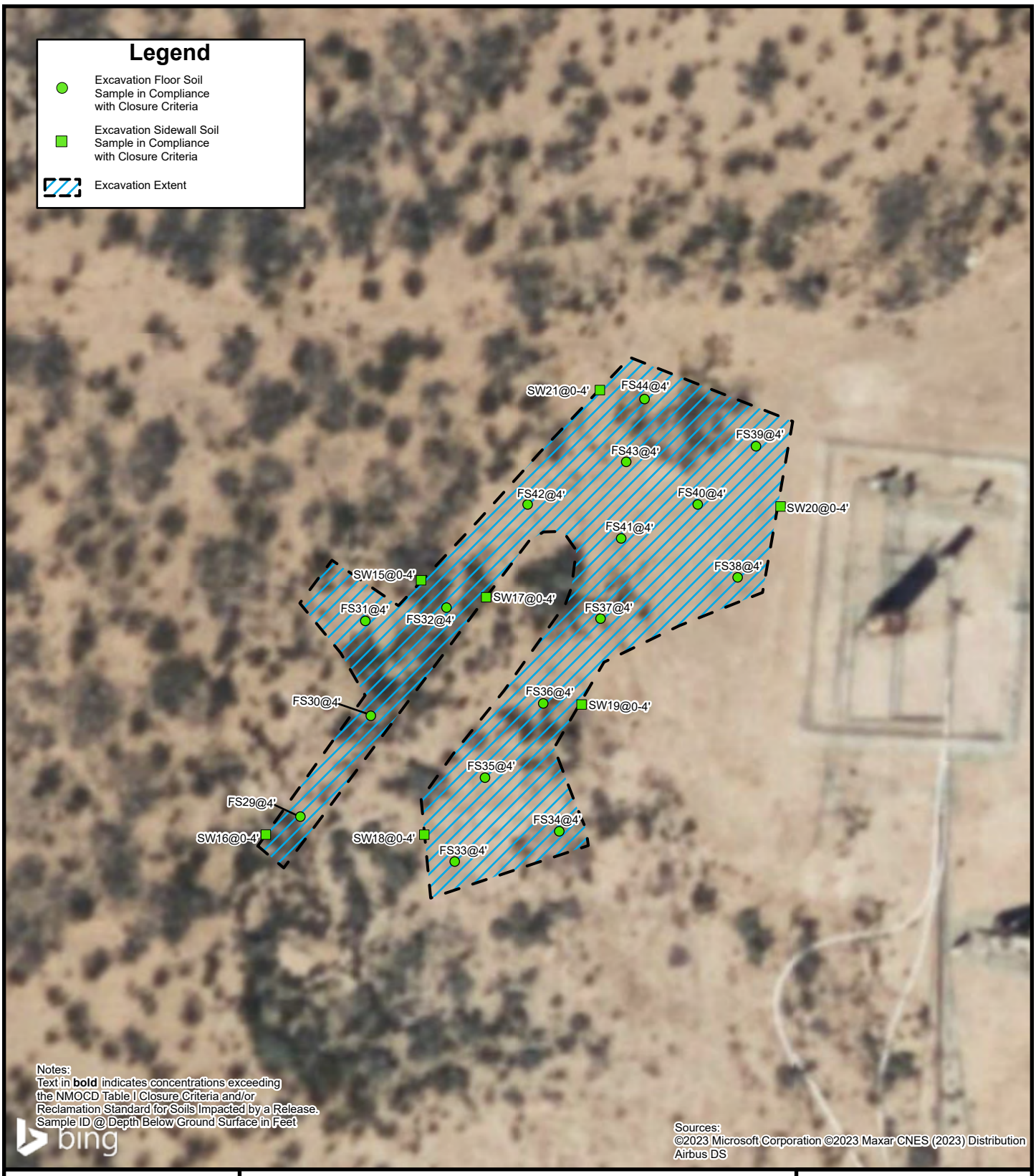
FIGURE 2A

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 32.5 65 Feet



eTECH

FIGURE 2B

Excavation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
Ross Draw Unit #011
Unit O Sec 22 T26S R30E
Eddy County, New Mexico

N

0 20 40 Feet

APPENDIX B

Referenced Well Records

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

APPENDIX C

Photographic Logs

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 1 **Date: 10/26/2023**
Description: Southeastern view of excavation activities from the southern excavation.

Photograph 2 **Date: 10/26/2023**
Description: Southwestern view of excavation activities from the southern excavation.

Photograph 3 **Date: 10/26/2023**
Description: Northeastern view of excavation activities from the southern excavation.

Photograph 4 **Date: 10/26/2023**
Description: Northeastern view of excavation activities from the southern excavation.

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 1 **Date: 10/30/2023**
Description: Northwestern view of excavation activities from the northern excavation.

Photograph 2 **Date: 10/30/2023**
Description: Northwestern view of excavation activities from the northern excavation.

Photograph 3 **Date: 10/30/2023**
Description: Southwestern view of excavation activities from the northern excavation.

Photograph 4 **Date: 10/30/2023**
Description: Southwestern view of excavation activities from the northern excavation.

PHOTOGRAPHIC LOG
WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Photograph 5 **Date: 11/28/2023**
Description: Northwestern view of restoration activities of the southern excavation.

Photograph 6 **Date: 11/28/2023**
Description: Southwestern view of restoration activities of the southern excavation.

Photograph 7 **Date: 11/28/2023**
Description: Southeast view of restoration activities of the northern excavation.

Photograph 8 **Date: 11/28/2023**
Description: Southwest view of restoration activities of the northern excavation.

APPENDIX D

Tables

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Soil Samples - Incident Numbers nAB1712951426, nAB1728553778, nAB1728551205, and naPP2200728755										
FS01	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS02	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS03	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
FS04	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	24.1
FS05	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS06	10/06/2023	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.9
FS07	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,260
FS08	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,180
FS09	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,290
FS10	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,350
FS11	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS12	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,270
FS13	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,490
FS14	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,370
FS15	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,410
FS16	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,240
FS17	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	935
FS18	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	383
FS19	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	429
FS20	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,220
FS21	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	466
FS22	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	422
FS23	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	984
FS24	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	957
FS25	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,230
FS26	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,990
FS27	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,210
FS28	10/16/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,220
FS29	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.6
FS30	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	37.9
FS31	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	262

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS32	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	506
FS33	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	503
FS34	10/27/2023	4	<0.0250	<0.0500	<20.0	58.3	<50.0	58.3	58.3	472
FS35	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,430
FS36	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	5,220
FS37	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,130
FS38	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	281
FS39	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,340
FS40	10/27/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,070
FS41	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,260
FS42	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,660
FS43	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,610
FS44	10/30/2023	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,630
SW01	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW02	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW03	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW04	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.1
SW05	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	23.6
SW06	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	20.5
SW07	10/06/2023	0-2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	22.7
SW08	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	28.3
SW09	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	30.0
SW10	10/06/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	29.7
SW11	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW12	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	86.2
SW13	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	104
SW14	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	90.3
SW15	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	39.3
SW16	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SW17	10/16/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	52.0
SW18	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	27.1

Table 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC
Ross Draw Unit #011
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
SW19	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	26.8
SW20	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	162
SW21	10/30/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<400

Notes:
bgs: below ground surface
mg/kg: milligrams per kilogram
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMOCD: New Mexico Oil Conservation Division NMAC: New Mexico Administrative Code
Text in "grey" represents excavated soil samples
Concentrations in bold exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard † for Soils Impacted by a Release
† The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas, to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310074
Job Number:	01058-0007
Received:	10/12/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/17/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/17/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310074
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 2'	E310074-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS02 2'	E310074-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS03 2'	E310074-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS04 2'	E310074-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS05 2'	E310074-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
FS06 2'	E310074-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS01 2'

E310074-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS02 2'

E310074-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS03 2'

E310074-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS04 2'

E310074-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.2 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**24.1**	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS05 2'

E310074-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*96.6 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**23.9**	20.0	1	10/12/23	10/12/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

FS06 2'

E310074-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341072
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/12/23	
Surrogate: n-Nonane		*100 %*	*50-200*	*10/12/23*	*10/12/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2341077
Chloride	**23.9**	20.0	1	10/12/23	10/12/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.61*		*8.00*		*95.1*	*70-130*			
LCS (2341068-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.57*		*8.00*		*94.6*	*70-130*			
Matrix Spike Dup (2341068-MSD1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.64*		*8.00*		*95.6*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.7*	*70-130*			
LCS (2341068-BS2)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			
Matrix Spike Dup (2341068-MSD2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341072-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*51.7*		*50.0*		*103*	*50-200*			
LCS (2341072-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	248	25.0	250		99.2	38-132			
Surrogate: n-Nonane	*49.2*		*50.0*		*98.3*	*50-200*			
Matrix Spike (2341072-MS1)				**Source: E310074-06**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	*50.8*		*50.0*		*102*	*50-200*			
Matrix Spike Dup (2341072-MSD1)				**Source: E310074-06**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	101	38-132	0.193	20	
Surrogate: n-Nonane	*51.2*		*50.0*		*102*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341077-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	ND	20.0							
LCS (2341077-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2341077-MS1)				**Source: E310074-01**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	262	20.0	250	ND	105	80-120			
Matrix Spike Dup (2341077-MSD1)				**Source: E310074-01**					Prepared: 10/12/23 Analyzed: 10/13/23
Chloride	258	20.0	250	ND	103	80-120	1.37	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/23 09:46

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: Brushy Gathering Facility	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley
Address: 5315 Buena Vista Dr.
City, State, Zip: Carlsbad, NM, 88220
Phone: 575-885-7502
Email: jim.raley@dvn.com
WO: 21153712
Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only: Lab WO# E310074 | Job Number 01058-0007

TAT: 1D | 2D | 3D | Standard: 5 day TAT

EPA Program: CWA | SDWA | RCRA

State: NM | CO | UT | AZ | TX

Analysis and Method: Depth(ft.) | TPH GRO/DRO/ORO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | BGDOC NM | GDOC TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	BGDOC NM	GDOC TX	State: NM	Remarks
9:00	10.6.23	S	1	FS01	1	2'	x		x	
9:10	10.6.23	S	1	FS02	2	2'	x		x	
9:20	10.6.23	S	1	FS03	3	2'	x		x	
9:30	10.6.23	S	1	FS04	4	2'	x		x	
9:40	10.6.23	S	1	FS05	5	2'	x		x	
9:50	10.6.23	S	1	FS06	6	2'	x		x	
				10/10/23						

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/10/23	12:20	Michelle Gonzales	10.10.23	1220
Michelle Gonzales	10-11-23	1700	Andrew Martinez	10.11.23	1730
Andrew Martinez	10.11.23	2330	Caitlin Mars	10.12.23	8:25

Lab Use Only: Received on ice: (Y) / N; T1 ____ T2 ____ T3 ____; AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Project Information

Chain of Custody

Page 1 of 1

Boss Draw unit #011

Client: WPX Energy Permian, LLC.	
Project: ~~Brushy Gathering Facility~~	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley
Address: 5315 Buena Vista Dr.
City, State, Zip: Carlsbad, NM, 88220
Phone: 575-885-7502
Email: jim.raley@dvn.com
WO: 21153712
Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only

Lab WO# E310074 Job Number 01058-0007

TAT

1D | 2D | 3D | Standard: 5 day TAT

EPA Program

CWA | SDWA | RCRA

State

NM: x | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
9:00	10.6.23	S	1	FS01	1	2'						x		Corrected project name to match Project name on sample Contaners per Client. 10.12.23 CM
9:10	10.6.23	S	1	FS02	2	2'						x		
9:20	10.6.23	S	1	FS03	3	2'						x		
9:30	10.6.23	S	1	FS04	4	2'						x		
9:40	10.6.23	S	1	FS05	5	2'						x		
9:50	10.6.23	S	1	FS06	6	2'						x		

10/10/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
~~[illegible]~~	10/10/23	12:20	Michelle Tenfe	10-10-23	1220
Michelle Tenfe	10-11-23	1700	Andrew Mesa	10.11.23	1730
Andrew Mesa	10.11.23	2330	Caitlin Mars	10.12.23	8:25

Lab Use Only

Received on ice: (Y) / N

T1 T2 T3

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/12/2023 12:24:09PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310074
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:32	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310126
Job Number:	01058-0007
Received:	10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/25/23

Date Reported: 10/25/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310126
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/23 12:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 4'	E310126-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS08 4'	E310126-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS09 4'	E310126-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS10 4'	E310126-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS11 4'	E310126-05A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS12 4'	E310126-06A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS13 4'	E310126-07A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS14 4'	E310126-08A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS15 4'	E310126-09A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS16 4'	E310126-10A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS17 4'	E310126-11A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS18 4'	E310126-12A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS19 4'	E310126-13A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS20 4'	E310126-14A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS21 4'	E310126-15A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS22 4'	E310126-16A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS23 4'	E310126-17A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS24 4'	E310126-18A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS25 4'	E310126-19A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS26 4'	E310126-20A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS27 4'	E310126-21A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
FS28 4'	E310126-22A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS07 4'

E310126-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1260**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS08 4'

E310126-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.8 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1180**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS09 4'

E310126-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*101 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1290**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS10 4'

E310126-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1350**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS11 4'

E310126-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1240**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS12 4'

E310126-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1270**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS13 4'

E310126-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1490**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS14 4'

E310126-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1370**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS15 4'

E310126-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*98.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1410**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS16 4'

E310126-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1240**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS17 4'

E310126-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*96.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**935**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS18 4'

E310126-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.4 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**383**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS19 4'

E310126-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.2 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**429**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS20 4'

E310126-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.5 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**2220**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS21 4'

E310126-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*86.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*106 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**466**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS22 4'

E310126-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.8 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**422**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS23 4'

E310126-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**984**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS24 4'

E310126-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.7 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*97.6 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**957**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS25 4'

E310126-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*96.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1230**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS26 4'

E310126-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342066
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.0 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342068
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*95.9 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2342076
Chloride	**1990**	20.0	1	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS27 4'

E310126-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*93.9 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.2 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
Surrogate: n-Nonane		*82.7 %*	*50-200*	*10/20/23*	*10/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342077
Chloride	**3210**	40.0	2	10/19/23	10/20/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

FS28 4'

E310126-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Benzene	ND	0.0250	1	10/19/23	10/20/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/20/23	
Toluene	ND	0.0250	1	10/19/23	10/20/23	
o-Xylene	ND	0.0250	1	10/19/23	10/20/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/20/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.3 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/19/23*	*10/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/23	10/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/23	10/21/23	
Surrogate: n-Nonane		*84.7 %*	*50-200*	*10/20/23*	*10/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342077
Chloride	**3220**	40.0	2	10/19/23	10/20/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342065-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.49*		*8.00*		*93.7*	*70-130*			
LCS (2342065-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.49	0.0250	5.00		89.9	70-130			
Ethylbenzene	4.50	0.0250	5.00		90.1	70-130			
Toluene	4.62	0.0250	5.00		92.4	70-130			
o-Xylene	4.63	0.0250	5.00		92.6	70-130			
p,m-Xylene	9.33	0.0500	10.0		93.3	70-130			
Total Xylenes	14.0	0.0250	15.0		93.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.51*		*8.00*		*93.8*	*70-130*			
Matrix Spike (2342065-MS1)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.39	0.0250	5.00	ND	87.7	54-133			
Ethylbenzene	4.39	0.0250	5.00	ND	87.7	61-133			
Toluene	4.51	0.0250	5.00	ND	90.1	61-130			
o-Xylene	4.51	0.0250	5.00	ND	90.3	63-131			
p,m-Xylene	9.08	0.0500	10.0	ND	90.8	63-131			
Total Xylenes	13.6	0.0250	15.0	ND	90.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.42*		*8.00*		*92.8*	*70-130*			
Matrix Spike Dup (2342065-MSD1)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.54	0.0250	5.00	ND	90.7	54-133	3.36	20	
Ethylbenzene	4.55	0.0250	5.00	ND	91.0	61-133	3.72	20	
Toluene	4.68	0.0250	5.00	ND	93.6	61-130	3.73	20	
o-Xylene	4.70	0.0250	5.00	ND	93.9	63-131	3.93	20	
p,m-Xylene	9.43	0.0500	10.0	ND	94.3	63-131	3.85	20	
Total Xylenes	14.1	0.0250	15.0	ND	94.2	63-131	3.87	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.47*		*8.00*		*93.4*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342066-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.66*		*8.00*		*95.8*	*70-130*			
LCS (2342066-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.21	0.0250	5.00		104	70-130			
Ethylbenzene	5.11	0.0250	5.00		102	70-130			
Toluene	5.18	0.0250	5.00		104	70-130			
o-Xylene	5.13	0.0250	5.00		103	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.71*		*8.00*		*96.3*	*70-130*			
Matrix Spike (2342066-MS1)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.19	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.10	0.0250	5.00	ND	102	61-133			
Toluene	5.16	0.0250	5.00	ND	103	61-130			
o-Xylene	5.11	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.70*		*8.00*		*96.2*	*70-130*			
Matrix Spike Dup (2342066-MSD1)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Benzene	5.39	0.0250	5.00	ND	108	54-133	3.75	20	
Ethylbenzene	5.29	0.0250	5.00	ND	106	61-133	3.70	20	
Toluene	5.36	0.0250	5.00	ND	107	61-130	3.82	20	
o-Xylene	5.31	0.0250	5.00	ND	106	63-131	3.84	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	3.91	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	3.89	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.72*		*8.00*		*96.5*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342065-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.24*		*8.00*		*90.5*	*70-130*			
LCS (2342065-BS2)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.36*		*8.00*		*92.0*	*70-130*			
Matrix Spike (2342065-MS2)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.29*		*8.00*		*91.1*	*70-130*			
Matrix Spike Dup (2342065-MSD2)				**Source: E310123-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.7	70-130	10.2	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.45*		*8.00*		*93.1*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342066-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.17*		*8.00*		*89.6*	*70-130*			
LCS (2342066-BS2)									Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	46.7	20.0	50.0		93.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.05*		*8.00*		*88.1*	*70-130*			
Matrix Spike (2342066-MS2)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	45.5	20.0	50.0	ND	91.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.06*		*8.00*		*88.3*	*70-130*			
Matrix Spike Dup (2342066-MSD2)				**Source: E310126-02**					Prepared: 10/19/23 Analyzed: 10/20/23
Gasoline Range Organics (C6-C10)	46.4	20.0	50.0	ND	92.9	70-130	2.03	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.20*		*8.00*		*90.0*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342068-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*50.7*		*50.0*		*101*	*50-200*			
LCS (2342068-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	242	25.0	250		96.8	38-132			
Surrogate: n-Nonane	*49.6*		*50.0*		*99.2*	*50-200*			
Matrix Spike (2342068-MS1)				**Source: E310126-05**					Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	291	25.0	250	ND	116	38-132			
Surrogate: n-Nonane	*57.5*		*50.0*		*115*	*50-200*			
Matrix Spike Dup (2342068-MSD1)				**Source: E310126-05**					Prepared: 10/19/23 Analyzed: 10/20/23
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	8.64	20	
Surrogate: n-Nonane	*53.1*		*50.0*		*106*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342098-BLK1)									Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*43.9*		*50.0*		*87.7*	*50-200*			
LCS (2342098-BS1)									Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	226	25.0	250		90.4	38-132			
Surrogate: n-Nonane	*44.2*		*50.0*		*88.4*	*50-200*			
Matrix Spike (2342098-MS1)				**Source: E310184-02**					Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.0	38-132			
Surrogate: n-Nonane	*41.6*		*50.0*		*83.2*	*50-200*			
Matrix Spike Dup (2342098-MSD1)				**Source: E310184-02**					Prepared: 10/20/23 Analyzed: 10/21/23
Diesel Range Organics (C10-C28)	230	25.0	250	ND	92.1	38-132	0.0528	20	
Surrogate: n-Nonane	*42.6*		*50.0*		*85.3*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342076-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	ND	20.0							
LCS (2342076-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	241	20.0	250		96.5	90-110			
Matrix Spike (2342076-MS1)				**Source: E310126-03**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1600	20.0	250	1290	125	80-120			M1
Matrix Spike Dup (2342076-MSD1)				**Source: E310126-03**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1530	20.0	250	1290	98.0	80-120	4.27	20	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342077-BLK1)									Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	ND	20.0							
LCS (2342077-BS1)									Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2342077-MS1)				**Source: E310127-01**					Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	688	20.0	250	253	174	80-120			M1
Matrix Spike Dup (2342077-MSD1)				**Source: E310127-01**					Prepared: 10/19/23 Analyzed: 10/20/23
Chloride	732	20.0	250	253	192	80-120	6.32	20	M1

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/25/23 12:15

M1	Matrix spike recovery was above acceptance limits. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**	Lab Use Only: Lab WO# E310126; Job Number 9058.0007
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	TAT: 1D / 2D / 3D / Standard — 5 day TAT
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	EPA Program: CWA / SDWA / RCRA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	State: NM (x) / CO / UT / AZ / TX
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502	
Phone: 832-541-7719	Email: jim.raley@dvn.com	
Email: Devon-team@etechenv.com	WO: 21153712	
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
9:00	10.16.23	S	1	FS07	1	4'								X				
9:10	10.16.23	S	1	FS08	2	4'								X				
9:20	10.16.23	S	1	FS09	3	4'								X				
9:30	10.16.23	S	1	FS10	4	4'								X				
9:40	10.16.23	S	1	FS11	5	4'								X				
9:50	10.16.23	S	1	FS12	6	4'								X				
10:00	10.16.23	S	1	FS13	7	4'								X				
10:10	10.16.23	S	1	FS14	8	4'								X				
10:20	10.16.23	S	1	FS15	9	4'								X				
10:30	10.16.23	S	1	FS16	10	4'								X				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1210	[signature]	10.18.23	1210
[signature]	10/18/23	1745	[signature] Musso	10.18.23	1800
[signature] Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ______ T2 ______ T3 ______
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only	TAT / EPA Program
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E310126	Job Number 01058-0007
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.		1D 2D 3D Standard: 5 day TAT; CWA SDWA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method	RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502		
Phone: 832-541-7719	Email: jim.raley@dvn.com		State: NM CO UT AZ TX
Email: Devon-team@etechenv.com	WO: 21153712		NM: x
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755		

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:40	10.16.23	S	1	FS17	11	4'								x				
10:50	10.16.23	S	1	FS18	12	4'								x				
11:00	10.16.23	S	1	FS19	13	4'								x				
11:10	10.16.23	S	1	FS20	14	4'								x				
11:20	10.16.23	S	1	FS21	15	4'								x				
11:30	10.16.23	S	1	FS22	16	4'								x				
11:40	10.16.23	S	1	FS23	17	4'								x				
11:50	10.16.23	S	1	FS24	18	4'								x				
12:00	10.16.23	S	1	FS25	19	4'								x				
12:10	10.16.23	S	1	FS26	20	4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1250	[signature]	10.18.23	1210
[signature]	10.18.23	1745	Andrew Musso	10.18.23	1800
Andrew Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y)/ N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only		TAT				EPA Program	
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E310126	Job Number 01058-0007	1D	2D	3D	Standard 5 day TAT	CWA	SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	Analysis and Method							RCRA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220							State	
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502							NM x	CO, UT, AZ, TX
Phone: 832-541-7719	Email: jim.raley@dvn.com								
Email: Devon-team@etechenv.com	WO: 21153712								
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755								

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:20	10.16.23	S	1	FS27	21	4'								X				
12:30	10.16.23	S	1	FS28	22	4'								X				

10/18/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/18/23	1210	[signature]	10.18.23	1210
[signature]	10.18.23	1745	Andrew Musso	10.18.23	1800
Andrew Musso	10.18.23	2400	[signature]	10.19.23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/19/2023 12:10:56PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310126
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:49	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

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Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310296
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/3/23

Date Reported: 11/3/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310296
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS29 4'	E310296-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS30 4'	E310296-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS31 4'	E310296-03A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS32 4'	E310296-04A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS33 4'	E310296-05A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS34 4'	E310296-06A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS35 4'	E310296-07A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS36 4'	E310296-08A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS37 4'	E310296-09A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS38 4'	E310296-10A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS39 4'	E310296-11A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
FS40 4'	E310296-12A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS29 4'

E310296-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.1 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**39.6**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS30 4'

E310296-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*92.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**37.9**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS31 4'

E310296-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.8 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.8 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**262**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS32 4'

E310296-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.6 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*90.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**506**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS33 4'

E310296-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.0 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**503**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS34 4'

E310296-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	10/31/23	
Ethylbenzene	ND	0.0250	1	10/31/23	10/31/23	
Toluene	ND	0.0250	1	10/31/23	10/31/23	
o-Xylene	ND	0.0250	1	10/31/23	10/31/23	
p,m-Xylene	ND	0.0500	1	10/31/23	10/31/23	
Total Xylenes	ND	0.0250	1	10/31/23	10/31/23	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	10/31/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*10/31/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	**58.3**	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*92.5 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**472**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS35 4'

E310296-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.6 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*86.1 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**1430**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS36 4'

E310296-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.8 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*88.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**5220**	100	5	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS37 4'

E310296-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.9 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*89.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**2130**	400	20	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS38 4'

E310296-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*86.5 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**281**	20.0	1	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS39 4'

E310296-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.1 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*90.7 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**3340**	400	20	11/02/23	11/03/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

FS40 4'

E310296-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Benzene	ND	0.0250	1	10/31/23	11/01/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/01/23	
Toluene	ND	0.0250	1	10/31/23	11/01/23	
o-Xylene	ND	0.0250	1	10/31/23	11/01/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/01/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/01/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.7 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344026
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/01/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/31/23*	*11/01/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*91.6 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344079
Chloride	**3070**	100	5	11/02/23	11/03/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344026-BLK1)									Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.96*		*8.00*		*99.5*	*70-130*			
LCS (2344026-BS1)									Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.60	0.0250	5.00		92.0	70-130			
Ethylbenzene	4.74	0.0250	5.00		94.8	70-130			
Toluene	4.83	0.0250	5.00		96.6	70-130			
o-Xylene	4.89	0.0250	5.00		97.9	70-130			
p,m-Xylene	9.78	0.0500	10.0		97.8	70-130			
Total Xylenes	14.7	0.0250	15.0		97.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.10*		*8.00*		*101*	*70-130*			
Matrix Spike (2344026-MS1)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.57	0.0250	5.00	ND	91.4	54-133			
Ethylbenzene	4.71	0.0250	5.00	ND	94.2	61-133			
Toluene	4.80	0.0250	5.00	ND	95.9	61-130			
o-Xylene	4.87	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.71	0.0500	10.0	ND	97.1	63-131			
Total Xylenes	14.6	0.0250	15.0	ND	97.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*8.21*		*8.00*		*103*	*70-130*			
Matrix Spike Dup (2344026-MSD1)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Benzene	4.50	0.0250	5.00	ND	89.9	54-133	1.61	20	
Ethylbenzene	4.66	0.0250	5.00	ND	93.3	61-133	1.02	20	
Toluene	4.74	0.0250	5.00	ND	94.8	61-130	1.20	20	
o-Xylene	4.82	0.0250	5.00	ND	96.3	63-131	1.07	20	
p,m-Xylene	9.63	0.0500	10.0	ND	96.3	63-131	0.815	20	
Total Xylenes	14.4	0.0250	15.0	ND	96.3	63-131	0.900	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.15*		*8.00*		*102*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344026-BLK1)									Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.20*		*8.00*		*90.1*	*70-130*			
LCS (2344026-BS2)									Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	42.6	20.0	50.0		85.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.31*		*8.00*		*91.4*	*70-130*			
Matrix Spike (2344026-MS2)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	42.6	20.0	50.0	ND	85.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.30*		*8.00*		*91.3*	*70-130*			
Matrix Spike Dup (2344026-MSD2)				**Source: E310296-03**					Prepared: 10/31/23 Analyzed: 10/31/23
Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.5	70-130	6.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.37*		*8.00*		*92.1*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344079-BLK1)									Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	ND	20.0							
LCS (2344079-BS1)									Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2344079-MS1)				**Source: E310296-02**					Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	289	20.0	250	37.9	101	80-120			
Matrix Spike Dup (2344079-MSD1)				**Source: E310296-02**					Prepared: 11/02/23 Analyzed: 11/03/23
Chloride	284	20.0	250	37.9	98.5	80-120	1.73	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/03/23 16:40

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Client: WPX Energy Permian, LLC.
Project: ROSS DRAW UNIT #011
Project Manager: Gilbert Moreno
Address: 13000 W County Rd 100
City, State, Zip_Odessa,TX, 79765
Phone: 832-541-7719
Email: Devon-team@etechenv.com
Collected by: Edyte Konan

Bill To
Attention: Jim Raley
Address: 5315 Buena Vista Dr.
City, State, Zip: Carlsbad, NM, 88220
Phone: 575-885-7502
Email: jim.raley@dvn.com
WBS/WO: MM-155117.AL.RNM
Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only
Lab WO#: E310296
Job Number: 01058-0007

TAT: 1D | 2D | 3D | Standard: 5 day TAT

EPA Program: CWA | SDWA | RCRA

State: NM: x | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
12:00	10.27.23	S	1	FS29	1	4'								X				
12:10	10.27.23	S	1	FS30	2	4'								X				
12:20	10.27.23	S	1	FS31	3	4'								X				
12:30	10.27.23	S	1	FS32	4	4'								X				
12:40	10.27.23	S	1	FS33	5	4'								X				
12:50	10.27.23	S	1	FS34	6	4'								X				
13:00	10.27.23	S	1	FS35	7	4'								X				
13:10	10.27.23	S	1	FS36	8	4'								X				
13:20	10.27.23	S	1	FS37	9	4'								X				
13:30	10.27.23	S	1	FS38	10	4'								X				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	15:00
Michelle Gonzales	10-27-23	1615	Caitlin Mars	10-30-23	8:30

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Client: WPX Energy Permian, LLC.	**Bill To**
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM
Collected by: Edyte Konan	Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310296	01058-0007				5 day TAT		
							RCRA

State: NM (x) | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
13:40	10.27.23	S	1	FS39	11	4'								x				
13:50	10.27.23	S	1	FS40	12	4'								x				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615	Caitlin Mars	10-30-23	8:30

Lab Use Only
Received on Ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/30/2023 12:47:19PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310296
Phone:	(539) 573-4018	Date Logged In:	10/30/23 11:25	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

NELAP ACCREDITED TNI LABORATORY

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310308
Job Number:	01058-0007
Received:	11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310308
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS41 4'	E310308-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS42 4'	E310308-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS43 4'	E310308-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
FS44 4'	E310308-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS41 4'

E310308-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.9 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.9 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**3260**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS42 4'

E310308-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*106 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*113 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**2660**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS43 4'

E310308-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*112 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**1610**	400	20	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

FS44 4'

E310308-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*105 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2344083
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/03/23	
Surrogate: n-Nonane		*106 %*	*50-200*	*11/03/23*	*11/03/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**1630**	400	20	11/04/23	11/06/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344083-BLK1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*53.0*		*50.0*		*106*	*50-200*			
LCS (2344083-BS1)									Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	247	25.0	250		99.0	38-132			
Surrogate: n-Nonane	*53.7*		*50.0*		*107*	*50-200*			
Matrix Spike (2344083-MS1)				**Source: E310308-04**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132			
Surrogate: n-Nonane	*55.4*		*50.0*		*111*	*50-200*			
Matrix Spike Dup (2344083-MSD1)				**Source: E310308-04**					Prepared: 11/03/23 Analyzed: 11/03/23
Diesel Range Organics (C10-C28)	257	25.0	250	ND	103	38-132	0.736	20	
Surrogate: n-Nonane	*54.7*		*50.0*		*109*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:15:42PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:15

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

01058-0007 LR

Client: WPX Energy Permian, LLC.	Bill To
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310308	~~[illegible]~~				5 day TAT		
							RCRA

State: NM (x) | CO | UT | AZ | TX

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.30.23	S	1	FS41	1	4'								x				
10:10	10.30.23	S	1	FS42	2	4'								x				
10:20	10.30.23	S	1	FS43	3	4'								x				
10:30	10.30.23	S	1	FS44	4	4'								x				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/31/2023		Michelle Gonzales [signature]	10/31/23	1045
Michelle Gonzales [signature]	10-31-23	1545	[signature]	10.31.23	1730
[signature]	10.31.23	2400	Lacey Rodriguez [signature]	11/1/23	8:30

Lab Use Only

Received on ice: (Y) / N

T1 ____ T2 ____ T3 ____

AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ______

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 3:57:30PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310308
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:02	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310073
Job Number:	01058-0007
Received:	10/12/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
1/3/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 1/3/24

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310073
Date Received: 10/12/2023 8:25:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/12/2023 8:25:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0-2'	E310073-01A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW02 0-2'	E310073-02A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW03 0-2'	E310073-03A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW04 0-4'	E310073-04A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW05 0-4'	E310073-05A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW06 0-4'	E310073-06A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW07 0-2'	E310073-07A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW08 0-4'	E310073-08A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW09 0-4'	E310073-09A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.
SW10 0-4'	E310073-10A	Soil	10/06/23	10/12/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW01 0-2'

E310073-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.7 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*76.5 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW02 0-2'

E310073-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.0 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*69.8 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW03 0-2'

E310073-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.6 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*74.2 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW04 0-4'

E310073-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*69.5 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**20.1**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW05 0-4'

E310073-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*97.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*79.1 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**23.6**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW06 0-4'

E310073-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.4 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*75.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**20.5**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW07 0-2'

E310073-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.1 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*75.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**22.7**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW08 0-4'

E310073-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.3 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*77.9 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**28.3**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW09 0-4'

E310073-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.8 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*79.3 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**30.0**	20.0	1	10/12/23	10/13/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

SW10 0-4'

E310073-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Benzene	ND	0.0250	1	10/12/23	10/12/23	
Ethylbenzene	ND	0.0250	1	10/12/23	10/12/23	
Toluene	ND	0.0250	1	10/12/23	10/12/23	
o-Xylene	ND	0.0250	1	10/12/23	10/12/23	
p,m-Xylene	ND	0.0500	1	10/12/23	10/12/23	
Total Xylenes	ND	0.0250	1	10/12/23	10/12/23	
Surrogate: 4-Bromochlorobenzene-PID		*96.7 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2341068
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/12/23	10/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.5 %*	*70-130*	*10/12/23*	*10/12/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2341066
Diesel Range Organics (C10-C28)	ND	25.0	1	10/12/23	10/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/12/23	10/13/23	
Surrogate: n-Nonane		*76.3 %*	*50-200*	*10/12/23*	*10/13/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2341076
Chloride	**29.7**	20.0	1	10/12/23	10/13/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.61*		*8.00*		*95.1*	*70-130*			
LCS (2341068-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.67	0.0250	5.00		93.4	70-130			
Ethylbenzene	4.61	0.0250	5.00		92.2	70-130			
Toluene	4.66	0.0250	5.00		93.2	70-130			
o-Xylene	4.65	0.0250	5.00		93.0	70-130			
p,m-Xylene	9.43	0.0500	10.0		94.3	70-130			
Total Xylenes	14.1	0.0250	15.0		93.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.42	0.0250	5.00	ND	88.4	54-133			
Ethylbenzene	4.37	0.0250	5.00	ND	87.4	61-133			
Toluene	4.43	0.0250	5.00	ND	88.6	61-130			
o-Xylene	4.41	0.0250	5.00	ND	88.3	63-131			
p,m-Xylene	8.94	0.0500	10.0	ND	89.4	63-131			
Total Xylenes	13.4	0.0250	15.0	ND	89.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.57*		*8.00*		*94.6*	*70-130*			
Matrix Spike Dup (2341068-MSD1)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Benzene	4.46	0.0250	5.00	ND	89.1	54-133	0.784	20	
Ethylbenzene	4.41	0.0250	5.00	ND	88.3	61-133	0.970	20	
Toluene	4.46	0.0250	5.00	ND	89.2	61-130	0.636	20	
o-Xylene	4.46	0.0250	5.00	ND	89.2	63-131	1.09	20	
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131	0.933	20	
Total Xylenes	13.5	0.0250	15.0	ND	89.9	63-131	0.983	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.64*		*8.00*		*95.6*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341068-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.7*	*70-130*			
LCS (2341068-BS2)									Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.58*		*8.00*		*94.7*	*70-130*			
Matrix Spike (2341068-MS2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			
Matrix Spike Dup (2341068-MSD2)				**Source: E310074-02**					Prepared: 10/12/23 Analyzed: 10/12/23
Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	88.9	70-130	1.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341066-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*42.0*		*50.0*		*84.0*	*50-200*			
LCS (2341066-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.5	38-132			
Surrogate: n-Nonane	*40.2*		*50.0*		*80.4*	*50-200*			
Matrix Spike (2341066-MS1)				**Source: E310070-04**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	211	25.0	250	ND	84.4	38-132			
Surrogate: n-Nonane	*37.7*		*50.0*		*75.5*	*50-200*			
Matrix Spike Dup (2341066-MSD1)				**Source: E310070-04**					Prepared: 10/12/23 Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	206	25.0	250	ND	82.3	38-132	2.54	20	
Surrogate: n-Nonane	*36.3*		*50.0*		*72.5*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	1/3/2024 11:06:06AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2341076-BLK1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	ND	20.0							
LCS (2341076-BS1)									Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	246	20.0	250		98.4	90-110			
Matrix Spike (2341076-MS1)				**Source: E310065-21**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	249	20.0	250	ND	99.4	80-120			
Matrix Spike Dup (2341076-MSD1)				**Source: E310065-21**					Prepared: 10/12/23 Analyzed: 10/12/23
Chloride	252	20.0	250	ND	101	80-120	1.37	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	01/03/24 11:06

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**
Project: Brushy Gathering Facility	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WO: 21153712
Collected by: Edyte Konan	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only		TAT				EPA Program	
Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA
E310073	01058-0007				5 day TAT		
							RCRA

State: NM (x) | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.6.23	S	1	SW01	1	0-2'								x				
10:10	10.6.23	S	1	SW02	2	0-2'								x				
10:20	10.6.23	S	1	SW03	3	0-2'								x				
10:30	10.6.23	S	1	SW04	4	0-4'								x				
10:40	10.6.23	S	1	SW05	5	0-4'								x				
10:50	10.6.23	S	1	SW06	6	0-4'								x				
11:00	10.6.23	S	1	SW07	7	0-2'								x				
11:10	10.6.23	S	1	SW08	8	0-4'								x				
11:20	10.6.23	S	1	SW09	9	0-4'								x				
11:30	10.6.23	S	1	SW10	10	0-4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/10/23	12:20	Michelle Gonzales	10-10-23	1220
Michelle Gonzales	10-11-23	1700	[signature]	10-11-23	1730
[signature]	10-11-23	2330	Caitlin Mars	10-12-23	8:25

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Project Information

Chain of Custody

Ross Draw unit #011

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only		TAT	EPA Program
Project: ~~Brushy Gathering Facility~~	Attention: Jim Raley	Lab WO# E310073	Job Number 01058-0007	1D / 2D / 3D / Standard: 5 day TAT	CWA / SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	Analysis and Method			RCRA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220				State: NM / CO / UT / AZ / TX
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502				
Phone: 832-541-7719	Email: jim.raley@dvn.com				
Email: Devon-team@etechenv.com	WO: 21153712				
Collected by: Edyte Konan	Incident ID: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:00	10.6.23	S	1	SW01	1	0-2'								x				Corrected project name to match project name on Sample Containers. 10.12.23 CM
10:10	10.6.23	S	1	SW02	2	0-2'								x				
10:20	10.6.23	S	1	SW03	3	0-2'								x				
10:30	10.6.23	S	1	SW04	4	0-4'								x				
10:40	10.6.23	S	1	SW05	5	0-4'								x				
10:50	10.6.23	S	1	SW06	6	0-4'								x				
11:00	10.6.23	S	1	SW07	7	0-2'								x				
11:10	10.6.23	S	1	SW08	8	0-4'								x				
11:20	10.6.23	S	1	SW09	9	0-4'								x				
11:30	10.6.23	S	1	SW10	10	0-4'								x				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/10/23	12:20	Michelle Gonzales	10.10.23	1220
Michelle Gonzales	10.11.23	1700	Andrew Musso	10.11.23	1730
Andrew Musso	10.11.23	2330	Caitlin Mars	10.12.23	8:25

Lab Use Only
Received on ice: (Y) / N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ________

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Envirotech Analytical Laboratory

Printed: 10/12/2023 12:15:29PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/12/23 08:25	Work Order ID:	E310073
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15:30	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Project name on sample containers did not match the project name on COC. Client asked to change the project name on the COC.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310125
Job Number:	01058-0007
Received:	10/19/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/23/23

Date Reported: 10/23/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310125
Date Received: 10/19/2023 8:15:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/19/2023 8:15:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW11 0-4'	E310125-01A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW12 0-4'	E310125-02A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW13 0-4'	E310125-03A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.
SW14 0-4'	E310125-04A	Soil	10/16/23	10/19/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW11 0-4'

E310125-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.1 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*88.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	ND	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW12 0-4'

E310125-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.0 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*88.1 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**86.2**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW13 0-4'

E310125-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.9 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.8 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*86.5 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**104**	20.0	1	10/19/23	10/19/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

SW14 0-4'

E310125-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Benzene	ND	0.0250	1	10/19/23	10/19/23	
Ethylbenzene	ND	0.0250	1	10/19/23	10/19/23	
Toluene	ND	0.0250	1	10/19/23	10/19/23	
o-Xylene	ND	0.0250	1	10/19/23	10/19/23	
p,m-Xylene	ND	0.0500	1	10/19/23	10/19/23	
Total Xylenes	ND	0.0250	1	10/19/23	10/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2342062
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/19/23	10/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.7 %*	*70-130*	*10/19/23*	*10/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2342064
Diesel Range Organics (C10-C28)	ND	25.0	1	10/19/23	10/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/19/23	10/20/23	
Surrogate: n-Nonane		*85.7 %*	*50-200*	*10/19/23*	*10/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2342075
Chloride	**90.3**	20.0	1	10/19/23	10/19/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342062-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.52*		*8.00*		*94.0*	*70-130*			
LCS (2342062-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.45	0.0250	5.00		89.1	70-130			
Ethylbenzene	4.54	0.0250	5.00		90.7	70-130			
Toluene	4.54	0.0250	5.00		90.8	70-130			
o-Xylene	4.58	0.0250	5.00		91.5	70-130			
p,m-Xylene	9.28	0.0500	10.0		92.8	70-130			
Total Xylenes	13.9	0.0250	15.0		92.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.51*		*8.00*		*93.9*	*70-130*			
Matrix Spike (2342062-MS1)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.74	0.0250	5.00	ND	94.8	54-133			
Ethylbenzene	4.84	0.0250	5.00	ND	96.7	61-133			
Toluene	4.84	0.0250	5.00	ND	96.9	61-130			
o-Xylene	4.86	0.0250	5.00	ND	97.3	63-131			
p,m-Xylene	9.86	0.0500	10.0	ND	98.6	63-131			
Total Xylenes	14.7	0.0250	15.0	ND	98.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.50*		*8.00*		*93.8*	*70-130*			
Matrix Spike Dup (2342062-MSD1)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Benzene	4.66	0.0250	5.00	ND	93.2	54-133	1.71	20	
Ethylbenzene	4.76	0.0250	5.00	ND	95.2	61-133	1.59	20	
Toluene	4.76	0.0250	5.00	ND	95.1	61-130	1.83	20	
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131	1.95	20	
p,m-Xylene	9.70	0.0500	10.0	ND	97.0	63-131	1.65	20	
Total Xylenes	14.5	0.0250	15.0	ND	96.5	63-131	1.75	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.45*		*8.00*		*93.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342062-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.16*		*8.00*		*89.4*	*70-130*			
LCS (2342062-BS2)									Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.0	20.0	50.0		92.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.38*		*8.00*		*92.2*	*70-130*			
Matrix Spike (2342062-MS2)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	50.2	20.0	50.0	ND	100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.41*		*8.00*		*92.6*	*70-130*			
Matrix Spike Dup (2342062-MSD2)				**Source: E310122-02**					Prepared: 10/19/23 Analyzed: 10/19/23
Gasoline Range Organics (C6-C10)	46.0	20.0	50.0	ND	92.0	70-130	8.72	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.40*		*8.00*		*92.5*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342064-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.9*		*50.0*		*91.7*	*50-200*			
LCS (2342064-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	250	25.0	250		100	38-132			
Surrogate: n-Nonane	*46.5*		*50.0*		*93.0*	*50-200*			
Matrix Spike (2342064-MS1)				**Source: E310122-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	*50.4*		*50.0*		*101*	*50-200*			
Matrix Spike Dup (2342064-MSD1)				**Source: E310122-04**					Prepared: 10/19/23 Analyzed: 10/19/23
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	2.44	20	
Surrogate: n-Nonane	*49.3*		*50.0*		*98.6*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/2023 11:48:27AM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2342075-BLK1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	ND	20.0							
LCS (2342075-BS1)									Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	256	20.0	250		103	90-110			
Matrix Spike (2342075-MS1)				**Source: E310123-05**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1930	20.0	250	1770	64.8	80-120			M4
Matrix Spike Dup (2342075-MSD1)				**Source: E310123-05**					Prepared: 10/19/23 Analyzed: 10/19/23
Chloride	1900	20.0	250	1770	52.3	80-120	1.64	20	M4

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/23/23 11:48

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	**Bill To**	Lab Use Only: Lab WO# E310125 / Job Number 01058.0007
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	TAT: 1D / 2D / 3D / Standard: 5 day TAT
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.	EPA Program: CWA / SDWA / RCRA
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502	
Phone: 832-541-7719	Email: jim.raley@dvn.com	
Email: Devon-team@etechenv.com	WO: 21153712	
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Analysis and Method: Depth(ft.); TPH GRO/DRO/ORO by 8015; BTEX by 8021; VOC by 8260; Metals 6010; Chloride 300.0; BGDOC NM; GDOC TX

State: NM x; CO; UT; AZ; TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	BGDOC NM	GDOC TX	Remarks
12:40	10.16.23	S	1	SW11	1	0-4'	x		
12:50	10.16.23	S	1	SW12	2	0-4'	x		
13:00	10.16.23	S	1	SW13	3	0-4'	x		
13:10	10.16.23	S	1	SW14	4	0-4'	x		

10/18/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/18/23	1210		10/18/23	1210
	10.18.23	1745		10.18.23	1800
	10.18.23	2400		10.19.23	8:15

Lab Use Only: Received on ice: (Y) / N; T1 ____ T2 ____ T3 ____; AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, **v** - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/19/2023 12:05:17PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/19/23 08:15	Work Order ID:	E310125
Phone:	(539) 573-4018	Date Logged In:	10/18/23 16:48	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310293
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310293
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW15 0-4'	E310293-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.
SW16 0-4'	E310293-02A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

SW15 0-4'

E310293-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.3 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.3 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		*85.7 %*	*50-200*	*11/02/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**39.3**	20.0	1	11/02/23	11/02/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

SW16 0-4'

E310293-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.4 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.4 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344070
Diesel Range Organics (C10-C28)	ND	25.0	1	11/02/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/02/23	11/02/23	
Surrogate: n-Nonane		*90.5 %*	*50-200*	*11/02/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	ND	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344070-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.5*		*50.0*		*90.9*	*50-200*			
LCS (2344070-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.6	38-132			
Surrogate: n-Nonane	*40.0*		*50.0*		*80.0*	*50-200*			
Matrix Spike (2344070-MS1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	225	25.0	250	ND	89.9	38-132			
Surrogate: n-Nonane	*41.7*		*50.0*		*83.4*	*50-200*			
Matrix Spike Dup (2344070-MSD1)				**Source: E310300-08**					Prepared: 11/02/23 Analyzed: 11/02/23
Diesel Range Organics (C10-C28)	219	25.0	250	ND	87.6	38-132	2.55	20	
Surrogate: n-Nonane	*41.8*		*50.0*		*83.5*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:43:03AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:43

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley	
Address: 5315 Buena Vista Dr.	
City, State, Zip: Carlsbad, NM, 88220	
Phone: 575-885-7502	
Email: jim.raley@dvn.com	
WBS/WO: MM-155117.AL.RNM	
Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Lab Use Only

Lab WO#	Job Number
E310293	01058-0057

TAT

1D	2D	3D	Standard
			5 day TAT

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX	
x					

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
14:00	10.27.23	S	1	SW15	1	0-4'								X				
14:10	10.27.23	S	1	SW16	2	0-4'								X				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615		10.30.23	8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 _____ T2 _____ T3 _____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 11:00:28AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310293
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:57	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310292
Job Number:	01058-0007
Received:	10/30/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/6/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*87.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**52.0**	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: WPX Energy Permian, LLC.	**Bill To**
Project: ROSS DRAW UNIT #011	Attention: Jim Raley
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502
Phone: 832-541-7719	Email: jim.raley@dvn.com
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM
Collected by: Edyte Konan	Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755

Lab Use Only	
Lab WO#	Job Number
E310292	01058-0007

TAT			
1D	2D	3D	Standard
			5 day TAT

EPA Program	
CWA	SDWA
	RCRA

State				
NM	CO	UT	AZ	TX
x				

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
14:20	10.27.23	S	1	SW17	1	0-4'								X				

10/27/23

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615	[signature]	10-30-23	8:30

Lab Use Only

Received on ice: (Y)/ N

T1 ______ T2 ______ T3 ______

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Gilbert Moreno

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

WPX Energy - Carlsbad

Project Name:	ROSS DRAW UNIT #011
Work Order:	E310309
Job Number:	01058-0007
Received:	11/1/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/7/23

Date Reported: 11/7/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310309
Date Received: 11/1/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/1/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW18 0-4'	E310309-01A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW19 0-4'	E310309-02A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW20 0-4'	E310309-03A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.
SW21 0-4	E310309-04A	Soil	10/30/23	11/01/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW18 0-4'

E310309-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**27.1**	20.0	1	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW19 0-4'

E310309-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*109 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**26.8**	20.0	1	11/04/23	11/06/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW20 0-4'

E310309-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*104 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*94.6 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	**162**	20.0	1	11/04/23	11/07/23	

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

SW21 0-4

E310309-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Benzene	ND	0.0250	1	11/01/23	11/02/23	
Ethylbenzene	ND	0.0250	1	11/01/23	11/02/23	
Toluene	ND	0.0250	1	11/01/23	11/02/23	
o-Xylene	ND	0.0250	1	11/01/23	11/02/23	
p,m-Xylene	ND	0.0500	1	11/01/23	11/02/23	
Total Xylenes	ND	0.0250	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*103 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344042
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/01/23	11/02/23	
Surrogate: Bromofluorobenzene		*103 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/01/23*	*11/02/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*11/01/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344103
Diesel Range Organics (C10-C28)	ND	25.0	1	11/03/23	11/04/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/03/23	11/04/23	
Surrogate: n-Nonane		*90.7 %*	*50-200*	*11/03/23*	*11/04/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344118
Chloride	ND	400	20	11/04/23	11/07/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS1)									Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.43	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.8	70-130			
Toluene	2.35	0.0250	2.50		94.0	70-130			
o-Xylene	2.38	0.0250	2.50		95.4	70-130			
p,m-Xylene	4.68	0.0500	5.00		93.7	70-130			
Total Xylenes	7.07	0.0250	7.50		94.2	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.495*		*0.500*		*98.9*	*70-130*			
Matrix Spike (2344042-MS1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.40	0.0250	2.50	ND	96.1	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.7	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.36	0.0250	2.50	ND	94.3	43-135			
p,m-Xylene	4.60	0.0500	5.00	ND	91.9	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.512*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			
Matrix Spike Dup (2344042-MSD1)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Benzene	2.42	0.0250	2.50	ND	96.7	48-131	0.685	23	
Ethylbenzene	2.41	0.0250	2.50	ND	96.4	45-135	0.771	27	
Toluene	2.33	0.0250	2.50	ND	93.1	48-130	0.885	24	
o-Xylene	2.38	0.0250	2.50	ND	95.4	43-135	1.18	27	
p,m-Xylene	4.68	0.0500	5.00	ND	93.5	43-135	1.76	27	
Total Xylenes	7.06	0.0250	7.50	ND	94.2	43-135	1.56	27	
Surrogate: Bromofluorobenzene	*0.513*		*0.500*		*103*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.510*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.491*		*0.500*		*98.2*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344042-BLK1)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.523*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.498*		*0.500*		*99.6*	*70-130*			
LCS (2344042-BS2)									Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.7	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	*0.521*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.503*		*0.500*		*101*	*70-130*			
Matrix Spike (2344042-MS2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130			
Surrogate: Bromofluorobenzene	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.511*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.574*		*0.500*		*115*	*70-130*			
Matrix Spike Dup (2344042-MSD2)				**Source: E310305-23**					Prepared: 11/01/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	3.21	20	
Surrogate: Bromofluorobenzene	*0.529*		*0.500*		*106*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.500*		*0.500*		*99.9*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344103-BLK1)									Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*49.2*		*50.0*		*98.3*	*50-200*			
LCS (2344103-BS1)									Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	241	25.0	250		96.4	38-132			
Surrogate: n-Nonane	*48.1*		*50.0*		*96.2*	*50-200*			
Matrix Spike (2344103-MS1)				**Source: E311018-07**					Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	275	25.0	250	ND	110	38-132			
Surrogate: n-Nonane	*54.6*		*50.0*		*109*	*50-200*			
Matrix Spike Dup (2344103-MSD1)				**Source: E311018-07**					Prepared: 11/03/23 Analyzed: 11/04/23
Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132	0.421	20	
Surrogate: n-Nonane	*53.9*		*50.0*		*108*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/7/2023 3:10:23PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344118-BLK1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)									Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2
Matrix Spike Dup (2344118-MSD1)				**Source: E310306-26**					Prepared: 11/04/23 Analyzed: 11/06/23
Chloride	761	200	250	593	67.2	80-120	70.7	20	M2, R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/07/23 15:10

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

01058-0007 4R

Client: WPX Energy Permian, LLC.	Bill To	Lab Use Only	TAT				EPA Program	
Project: ROSS DRAW UNIT #011	Attention: Jim Raley	Lab WO# E310309	Job Number ~~01058-0007~~	1D	2D	3D	Standard	CWA	SDWA
Project Manager: Gilbert Moreno	Address: 5315 Buena Vista Dr.						5 day TAT		
Address: 13000 W County Rd 100	City, State, Zip: Carlsbad, NM, 88220	Analysis and Method							RCRA
City, State, Zip_Odessa,TX, 79765	Phone: 575-885-7502								
Phone: 832-541-7719	Email: jim.raley@dvn.com							State	
Email: Devon-team@etechenv.com	WBS/WO: MM-155117.AL.RNM							NM CO UT AZ TX	
Collected by: Edyte Konan	Incident ID: mNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755							x	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX		Remarks
10:40	10.30.23	S	1	SW18	1	0-4'								X				
10:50	10.30.23	S	1	SW19	2	0-4'								X				
11:00	10.30.23	S	1	SW20	3	0-4'								X				
11:10	10.30.23	S	1	SW21	4	0-4'								X				

10/31/2023

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
~~[illegible]~~	10/31/2023		Michelle Gomez	10.31.23	1045
Michelle Gomez	10/31/23	1545	[illegible]	10.31.23	1730
[illegible]	10.31.23	2400	[illegible]	11/1/23	8:30

Lab Use Only
Received on ice: (Y) N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/1/2023 4:00:08PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	11/01/23 08:30	Work Order ID:	E310309
Phone:	(539) 573-4018	Date Logged In:	10/31/23 15:20	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Date Reported: 11/6/23

Gilbert Moreno
5315 Buena Vista Dr
Carlsbad, NM 88220

Project Name: ROSS DRAW UNIT #011
Workorder: E310292
Date Received: 10/30/2023 8:30:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/30/2023 8:30:00AM, under the Project Name: ROSS DRAW UNIT #011.

The analytical test results summarized in this report with the Project Name: ROSS DRAW UNIT #011 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW17 0-4'	E310292-01A	Soil	10/27/23	10/30/23	Glass Jar, 2 oz.

Sample Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

SW17 0-4'

E310292-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Benzene	ND	0.0250	1	10/31/23	11/02/23	
Ethylbenzene	ND	0.0250	1	10/31/23	11/02/23	
Toluene	ND	0.0250	1	10/31/23	11/02/23	
o-Xylene	ND	0.0250	1	10/31/23	11/02/23	
p,m-Xylene	ND	0.0500	1	10/31/23	11/02/23	
Total Xylenes	ND	0.0250	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2344030
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/23	11/02/23	
Surrogate: Bromofluorobenzene		*117 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.6 %*	*70-130*	*10/31/23*	*11/02/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*10/31/23*	*11/02/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2344044
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/23	11/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/23	11/02/23	
Surrogate: n-Nonane		*87.4 %*	*50-200*	*11/01/23*	*11/02/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2344059
Chloride	**52.0**	20.0	1	11/02/23	11/02/23	

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS1)									Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.70	0.0250	2.50		108	70-130			
Ethylbenzene	2.64	0.0250	2.50		106	70-130			
Toluene	2.61	0.0250	2.50		105	70-130			
o-Xylene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.77	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.573*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike (2344030-MS1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.77	0.0250	2.50	ND	111	48-131			
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135			
Toluene	2.69	0.0250	2.50	ND	108	48-130			
o-Xylene	2.68	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.36	0.0500	5.00	ND	107	43-135			
Total Xylenes	8.04	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.595*		*0.500*		*119*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD1)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Benzene	2.68	0.0250	2.50	ND	107	48-131	3.04	23	
Ethylbenzene	2.68	0.0250	2.50	ND	107	45-135	2.56	27	
Toluene	2.64	0.0250	2.50	ND	106	48-130	1.74	24	
o-Xylene	2.61	0.0250	2.50	ND	104	43-135	2.59	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	2.51	27	
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135	2.54	27	
Surrogate: Bromofluorobenzene	*0.589*		*0.500*		*118*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344030-BLK1)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.580*		*0.500*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.461*		*0.500*		*92.2*	*70-130*			
Surrogate: Toluene-d8	*0.547*		*0.500*		*109*	*70-130*			
LCS (2344030-BS2)									Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.2	20.0	50.0		114	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.470*		*0.500*		*94.0*	*70-130*			
Surrogate: Toluene-d8	*0.554*		*0.500*		*111*	*70-130*			
Matrix Spike (2344030-MS2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	55.2	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.587*		*0.500*		*117*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.557*		*0.500*		*111*	*70-130*			
Matrix Spike Dup (2344030-MSD2)				**Source: E310292-01**					Prepared: 10/31/23 Analyzed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	
Surrogate: Bromofluorobenzene	*0.576*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.556*		*0.500*		*111*	*70-130*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344044-BLK1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2344044-BS1)									Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*98.9*	*50-200*			
Matrix Spike (2344044-MS1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.3*	*50-200*			
Matrix Spike Dup (2344044-MSD1)				**Source: E310296-01**					Prepared: 11/01/23 Analyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*96.0*	*50-200*			

QC Summary Data

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	**Reported:**
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/6/2023 10:41:13AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2344059-BLK1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)									Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				**Source: E311014-04**					Prepared: 11/02/23 Analyzed: 11/02/23
Chloride	263	20.0	250	ND	105	80-120	3.32	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
5315 Buena Vista Dr	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: WPX Energy Permian, LLC.	
Project: ROSS DRAW UNIT #011	
Project Manager: Gilbert Moreno	
Address: 13000 W County Rd 100	
City, State, Zip_Odessa,TX, 79765	
Phone: 832-541-7719	
Email: Devon-team@etechenv.com	
Collected by: Edyte Konan	

Bill To

Attention: Jim Raley	
Address: 5315 Buena Vista Dr.	
City, State, Zip: Carlsbad, NM, 88220	
Phone: 575-885-7502	
Email: jim.raley@dvn.com	
WBS/WO: MM-155117.AL.RNM	
Incident ID: nNHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, nAPP2200728755	

Lab Use Only

Lab WO#	Job Number
E310292	01058.0007

TAT

1D	2D	3D	Standard
			5 day TAT

EPA Program

CWA	SDWA
	RCRA

State

NM	CO	UT	AZ	TX	
x					

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
14:20	10.27.23	S	1	SW17	1	0-4'						X		

10/27/23

Analysis and Method

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: GM

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/27/23	15:00	Michelle Gonzales	10-27-23	1500
Michelle Gonzales	10-27-23	1615		10.30.23	8:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: Y / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 10/30/2023 10:52:20AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	10/30/23 08:30	Work Order ID:	E310292
Phone:	(539) 573-4018	Date Logged In:	10/30/23 10:46	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	11/03/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

APPENDIX F

NMOCD Notifications

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Monday, October 2, 2023 2:48 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Erick Herrera <erick@etechenv.com>
Sent: Monday, October 2, 2023 12:40 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/5 - 10/6)

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 5th through October 6th, 2023:

Proposed Date: October 5, 2023, October 6, 2023.
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thank you,

Erick Herrera

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 11, 2023 5:15 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 11, 2023 3:33 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/16-10/20)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 16th through October 20th, 2023:

Proposed Date: October 16, 20023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 34
Incident Number: nAPP2326833391
API: 30-015-41578

Proposed Date: October 17, 20023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX Federal 21 #031
Incident Number: nAPP2326847671

API: 30-015-41266

Proposed Date: October 17, 20023, October 18, 2023, October 19, 2023, October 20, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDX 16 #009
Incident Numbers: nAPP2322658221 & nAPP2317840368
API: 30-015-39752

Proposed Date: October 16, 2023, October 17, 2023, October 18, 2023, October 19, 2023, October 20, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thank you,

Erick Herrera
Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, October 18, 2023 5:25 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Hi Erick,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 18, 2023 3:34 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/23-10/27)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 23rd through October 27th, 2023:

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Proposed Date: October 23, 2023, October 24, 2023, October 25, 2023, October 26, 2023, October 27, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: Sheep Draw Federal Battery #2
Incident Numbers: NGEG0720040869

API: 30-015-27015

Thank you,

Erick Herrera
Staff Geologist

Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>
Sent: Wednesday, October 25, 2023 2:52 PM
To: Erick Herrera; blm_nm_cfo_spill@blm.gov; Hamlet, Robert, EMNRD; Hall, Brittany, EMNRD
Cc: Raley, Jim; Devon-Team
Subject: RE: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
http://www.emnrd.nm.gov/ocd

From: Erick Herrera <erick@etechenv.com>
Sent: Wednesday, October 25, 2023 1:18 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; blm_nm_cfo_spill@blm.gov
Cc: Raley, Jim <jim.raley@dvn.com>; Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] WPX Site Sampling Activity Update (10/30-11/3)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30th through November 3th, 2023:

Proposed Date: October 30, 2023, October 31, 2023, November 1, 2023, November 2, 2023, November 3, 2023
Proposed Timeframe: 0800 – 1700 hrs.
Site Name: RDU 11
Incident Numbers: nAPP2200728755, nAB1712951426, nAB1728551205, nAB1728553778, & nHMP1412241998
API: 30-015-24307

Thanks,

Erick Herrera

Staff Geologist

eTECH Environmental & Safety Solutions, Inc.

Work: (432) 305-6416
Cell: (281) 777-4152

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 10:36 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from todays date or timeframe NMOCD deems reasonable.

Erick Herrera

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Tuesday, October 24, 2023 10:24 AM
To: Raley, Jim
Cc: Devon-Team; Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD; Wells, Shelly, EMNRD
Subject: (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

No problem, thank you for the update.

Your request for an extension to **January 18th, 2024** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Friday, October 20, 2023 8:42 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: RE: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011

Robert,

To summarize the below extension request. Basically we could not start excavation till BLM gave the OK on a cultural site they were considering possibly significant. When they finally did give the OK to proceed, we started immediately on the excavation, but we just don't have time to finish excavation and reporting by the current deadline of October, 20th. We are in the middle of the excavation and plan on delivering closure as soon as completed. Delay on this project was out of our control.

WPX Energy Permian, LLC (WPX) is requesting an extension to the current deadline for a report required in 19.15.29.12.B.(1) NMAC at the Ross Draw Unit #011 (Site) associated with the following Incident Numbers: NHMP1412241998, nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755.

An extensive cultural survey was required by the Bureau of Land Management (BLM) for the proposed work areas in pasture soil prior to conducting remediation activities to address the Incident Numbers listed above according to a Remediation Work Plan approved on October 19, 2022. SWCA was contracted to conduct the cultural survey, which began on May 2, 2023, the earliest a field crew was available. The cultural survey was completed over the course of approximately 2.5 weeks, and a subsequent report was submitted to the BLM for review on July 28, 2023. On August 14,

2023, SWCA received report edits from the BLM, which were addressed in accordance with subsequent correspondence with the BLM. The revised report was re-submitted to the BLM for review on September 1, 2023, which was determined to require minor edits prior to approval. SWCA submitted the finalized report on September 8, 2023, and on September 21, 2023, the BLM approved the sundry with monitoring stipulations and remediation activities began on October 2, 2023. Excavation activities are still currently on-going and approximately 50% of the proposed excavation area remains.

To provide enough time to complete remediation activities, soil sampling analyses, and prepare a subsequent report, WPX requests a 90-day extension of the deadline for the multiple Incident Numbers at the Site to **January 18, 2023.**

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Sent: Wednesday, June 7, 2023 9:36 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Devon-Team <Devon-Team@etechenv.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: [EXTERNAL] (Final Extension) - NAPP2200728755 - ROSS DRAW UNIT #011
Importance: High

RE: Incident # **NAPP2200728755, NAB1632647780, NAB1712951426, NAB1728551205, NAB1728553778, NHMP1412241998**

Jim,

Your request for an extension to **October 20th, 2023** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave.| Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Raley, Jim <Jim.Raley@dvn.com>
Sent: Wednesday, June 7, 2023 7:08 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>
Subject: [EXTERNAL] RE: RDU 11 Extension

Robert,
BLM required quite an extensive cultural survey on the RDU 11 excavation project. We contracted SWCA to complete this task, they have finished and expect to provide a cultural survey report to BLM by 6/30/2023. BLM will need time to review this report and determine if any additional action is needed or if they will allow excavation with monitoring etc.

So we are not able to move forward with completion of this project until we receive clearance from BLM which I expect will be mid-July. Due to this circumstance, WPX Energy respectfully requests an additional 90 day extension from todays date or timeframe NMOCD deems reasonable.

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

devon

From: Raley, Jim
Sent: Tuesday, May 2, 2023 8:29 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: RDU 11 Extension

Robert,
We had a tentative due date of (4/21/2023) to complete excavation at the RDU 11 for several incidents. BLM has requested a fairly extensive cultural survey before we can begin excavation. We are currently waiting on the archeological vendor (SWCA) to complete the survey and have BLM review. Due to this delay we would like to request an extension to the due to date to 7/20/2023.

(nAPP2200728755, nAB1632647780, nAB1712951426, nAB1728551205, nAB1728553778, nHMP1412241998)

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.raley@dvn.com

APPENDIX G

Approved Remediation Work Plan

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 02 2017
RECEIVED

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1712951426 24he289

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company WPX Energy Inc/RKI	Contact Karolina Blaney
Address 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02238133N **Longitude**: -103.86640329W

NATURE OF RELEASE

Type of Release. Oil	Volume of Release: 50 Bbls	Volume Recovered: 40 Bbls
Source of Release Poly line	Date and Hour of Occurrence 4/20/2017	Date and Hour of Discovery 4/20/2017 – 13:20 hrs MT
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour: 4/21/2017– 9:57hrs MT	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

The spill was caused by human error; the equipment setup was changed and the calibration employees were given a wrong information. They closed a valve that should've been open which resulted in over-pressuring an above ground poly line. Approximately 50 bbls of oil was spilled off location north and west of the location.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was mapped with Trimble. 40 bbls of oil was recovered with vac trucks. With BLM's approval, the impacted area off location was excavated to 2' below the surface to address the hydrocarbon concentrations. The impacted area will be sampled to determine if any additional excavation is necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney

Printed Name: Karolina Blaney

Title: Environmental Specialist

E-mail Address: Karolina.blaney@wpxenergy.com

Date: 5/2/2017 Phone: 970-589-0743

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 5/8/17 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐

* Attach Additional Sheets If Necessary

3RP-4197

State of New Mexico
Oil Conservation Division

Incident ID	nAB1712951426
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAB1712951426
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 05 2017
RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

NAB1728553778

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy 24e289	Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ **Longitude**__-103.86714_ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence unknown	Date and Hour of Discovery 9/21/2017 at 13:10
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/21/17 at 16:45	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 9/28/17 and on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney

Printed Name: Karolina Blaney

Title: Environmental Specialist

E-mail Address: Karolina.blaney@wpxenergy.com

Date: 10/5/17 Phone: 970 589 0743

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 10/5/17 Expiration Date: N/A

Conditions of Approval: See Attached

Attached ☐ 2RP-4432

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4432 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/5/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,
Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, September 21, 2017 4:45 PM
To: Weaver, Crystal, EMNRD; 'Tucker, Shelly'
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 - initial notification

Good afternoon,

WPX discovered a spill this afternoon, 9/21/17 at 1:10 pm, located south of the RDU 11 well pad; API # 30-015-24307; O-22-26S-30E. The coordinates of the spill origin are: Lat 32.02114 long -103.86714. The cause is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~600 yards southwest of that location. The total volume is unknown at this time but it exceeds the reportable quantities.

The spill report will be submitted in the next 15 days but if you have any questions or concerns, please do not hesitate to contact me.
Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 05 2017
RECEIVED

Form C-141
Revised April 3, 2017
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1728551205 24462389

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: RKI Exploration / WPX Energy	Contact: Karolina Blaney
Address: 5315 Buena Vista Dr.	Telephone No. 970 589 0743
Facility Name: RDU 11	Facility Type: Well Pad

Surface Owner: Federal	Mineral Owner: Federal	API No. 30- 015-24307

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	22	26S	30E	660	FSL	1980	FEL	Eddy

Latitude: 32.02114 _ **Longitude**__-103.86714_ NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered 0 bbls
Source of Release: water transfer line	Date and Hour of Occurrence 9/30/17	Date and Hour of Discovery 9/30/2017 at 15:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, BLM Shelly Tucker	
By Whom? Karolina Blaney	Date and Hour 9/30/17 at 20:30	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The cause of this spill is equipment failure; wear and tear of the poly line. The spill occurred ~75-100' south of the RDU 11 well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to heavy rainfall but it exceeds the reportable quantities. ~450' of the water transfer line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The water transfer operations were stopped immediately to prevent from further release of the fluids and the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. The impacted area was sampled for TPH, BTEX and Chlorides on 10/4/17. Further remediation will be based on the sampling results.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Karolina Blaney	OIL CONSERVATION DIVISION
Printed Name: Karolina Blaney	Approved by Environmental Specialist: Shelly Bratcher
Title: Environmental Specialist	Approval Date: 10/5/17 Expiration Date: N/A
E-mail Address: Karolina.blaney@wpxenergy.com	Conditions of Approval: See attached Attached ☐ 2RP-4431
Date: 10/5/17 Phone: 970 589 0743	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/5/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number APP4431 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District** 2 **office in** ARTESIA **on or before** 11/5/2017. **If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) if groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, October 5, 2017 1:13 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report
Attachments: RDU 11 C-141 9-21-17.doc; RDU 11 C-141 9-30-17.doc

Good afternoon,
Attached are two C-141 reports for spills that occurred on 9/21 and 9/30 south of the RDU 11 well pad. The footprint of both spills is very similar and the majority is overlapping. Our plan is to remediate and close both spills at the same time however, I understand that you will be assigning two separate incident numbers and I might need to submit separate paperwork.

Please let me know if you have any questions or suggestions.

Thank you,

Karolina Blaney
Environmental Specialist
WPX Energy
Office: (575) 885-7514
Cell: (970) 589-0743
karolina.blaney@wpxenergy.com

From: Blaney, Karolina
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>
Cc: mike.bratcher@state.nm.us; Raley, Jim <James.Raley@wpxenergy.com>
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.

The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.

thank you,

Bratcher, Mike, EMNRD

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Saturday, September 30, 2017 8:26 PM
To: stucker@blm.gov; Weaver, Crystal, EMNRD
Cc: Bratcher, Mike, EMNRD; Raley, Jim
Subject: WPX/RKI RDU 11 initial spill report

Good evening,

WPX had a spill this afternoon, 10/1/17 at 3 pm. The cause of the spill is equipment failure; an above ground water transfer line failed which resulted in a produced water spill. The water transfer operations were stopped immediately to prevent from further release of the fluids. The spill occurred south of the RDU 11 (API # 30-015-24307) well pad and the fluids migrated for ~100 yards southwest of that location. The total volume is unknown due to rainfall, but it exceeds the reportable quantities.
The C-141 report will be submitted within the next 15 days, but please do not hesitate to contact me if you have any questions.
thank you,
Karolina Blaney
970 589 0743

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Titl : Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Robert Hamlet Date: 5/4/2022

- [ ] Approved
- [x] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Robert Hamlet Date: 5/4/2022

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dvn.com	Incident # *(assigned by OCD)* nAPP2200728755
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

Location of Release Source

Latitude 32.0224991 Longitude -103.8669281
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ROSS DRAW UNIT #011	Site Type: Oil Production Site
Date Release Discovered: January 4th. 2022	API# *(if applicable) 30-015-24307*

Unit Letter	Section	Township	Range	County
O	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 20	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 24	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Dump malfunctioned on separator, causing fluids to escape from PRV and impact soils in dirt secondary containment, pad surface and slightly off-pad.

[Saturated Soil Volume yds^3 x percent porosity x (6.41187 bbls/1 yds^3)] = bbls of residual fluid in soil
[Fluid Volume yds^3 x (6.41187 bbls/1 yds^3)] = bbls of free-standing fluid

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc) Via email sent to Mike Bratcher, Emily Hernandez and Robert Hamlet on 1/4/2022	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____James Raley_____ Title: Environmental Specialist _____

Signature: _____ _____ Date: ___1/10/2022_____

email: ___jim.raley@dvn.com_____ Telephone: ___575-689-7597_____

OCD Only

Received by: Ramona Marcus Date: 1/10/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 71386
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/10/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 4/4/2022

email: jim.raley@dvn.com Telephone: 575-686-7597

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

REMEDIATION WORK PLAN AND DEFERRAL REQUEST REPORT

Site Location:

Ross Draw Unit #011
Eddy County, New Mexico
Incident Numbers:
NHMP1412241998
nAB1632647780
nAB1712951426
nAB1728553778
nAB1728551205
nAPP2200728755

April 1, 2022
Ensolum Project No. 03A1987006

Prepared for:

WPX Energy Permian, LLC
5315 Buena Vista Dr.
Carlsbad, NM 88220
Attention: Jim Raley

Prepared by:

Joseph S. Hernandez
Senior Geologist

Ashley Ager, M.S., PG
Program Director, Geologist

ENSOLUM

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1.1 Site Description & Releases Overview ..... 1&2
1.2 Site Characterization ..... 2&3
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2.1 Delineation Activities ..... 3&4
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4.0 DEFFERAL REQUEST ..... 4&5
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5.1 Proposed Sampling 6
5.2 Proposed Schedule 6

APPENDICES

Appendix A: Figure 1 – Site Map
Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)
Figure 2B – Delineation Soil Sample Locations (nAB172855377 and nAB1728551205)
Figure 3 – Area of Concern Tract (NHMP1412241998)
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Appendix B: Well Record

Appendix C: Lithologic Soil Sampling Logs

Appendix D: Photographic Log

Appendix E: Tables

Appendix F: Laboratory Analytical Reports & Chain-of-Custody Documentation

1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Remediation Work Plan Report (RWP) to document site assessment, soil sampling activities and preliminary corrective actions performed to date by WPX Permian Energy, LLC (WPX) at the Ross Draw Unit #011 (hereinafter referred to as the "Site") in Unit O, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico **(Figure 1 in Appendix A).** Based on field observations, field screening activities and review of the laboratory analytical results from delineation soil sampling activities at the Site, WPX respectfully submits this RWP, which summarizes soil sampling activities and initial response efforts that have occurred and proposes additional remediation and soil sampling activities to further investigate and address reportable releases of produced water and/or crude oil at the Site.

Additionallly, WPX has provided relevant information from a recent deferral request (Incident Number NRM2034258716), authored by WSP USA Inc. (WSP) and approved by New Mexico Oil Conservation Division (NMOCD) on January 13, 2022 for a release that overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the field summary and laboratory analytical data as it is applicable in the deferral request for Incident Number nAB1632647780. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.022210° N, 103.867013°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land **(Figure 1 in Appendix A)**.

NHMP1412241998

On March 18, 2014, a 4-inch PVC transfer line leaked and caused 200 barrels (bbls) of oil and produced water to be released and migrate southwest-west approximately 0.6 miles through the pasture. No fluids were able to be recovered immediately. WPX reported the release to the NMOCD via email and with a subsquent Corrective Action Form C-141 (Form C-141) dated March 29, 2014. The release was assigned Incident Number NHMP1412241998.

nAB1632647780

On November 5, 2016, a pump air locked and caused an oil tank to overfill and release approximately 70 bbls of crude oil into the earthen containment berm. No fluids escaped the earthern containment berm. Approximately 66 bbls of crude oil were recovered via vacuum truck. WPX reported the release to the NMOCD via email on November 6, 2016 and with a subsquent Form C-141 on November 17, 2016. The release was assigned Incident Number nAB1632647780.

nAB1712951426

On April 20, 2017, human error during equipment reconfiguration resulted in overpressurization of an aboveground poly line that released approximately 50 bbls of crude oil to the pasture north and west of the well pad location. Approximately 40 bbls of crude oil were recovered. WPX

reported the release to the NMOCD via email on April 21, 2017 and with a subsquent Form C-141 on May 2, 2017. The release was assigned Incident Number nAB1712951426.

nAB1728553778 and nAB1728551205

On September 21, 2017 and September 30, 2017 it was discovered that a poly line had failed between 75 and 100 feet south of the well pad and resulted in an unknown volume of produced water to be released and migrate an estimated 600 yards southwest in the pasture. No fluids were able to be recovered immediately due to heavy rainfall but volumes appeared to exceed the reportable limit. WPX reported the releases to the NMOCD via email and with subsquent Form C-141s on October 5, 2017. Incident Numbers nAB1728553778 and nAB1728551205, respectively were assigned.

nAPP2200728755

On January 4, 2022, the dump malfunctioned on a separator, causing the release of approximately 24 bbls of produced water and 20 bbls of crude oil into a earthen berm secondary containment and immediate pasture. No fluids were able to be recovered immediately but the release area on pad was excavated to approximately 0.5 foot below ground surface (bgs) to address surface staining. WPX reported the release to the NMOCD via email on January 4, 2022 and with a subsquent Form C-141 January 10, 2022. The release was assigned Incident Number nAPP2200728755.

1.2 Site Characterization

Ensolum characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on **Figure 1 in Appendix A.**

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based a soil boring (MW-1) that was drilled by Talon LPE on December 9, 2020, located approximately 0.40 miles southeast of the Site. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 106 feet bgs. No fluids were observed within the soil boring after at least 72 hours. Following the observation period, the boring was plugged and abandoned. The well log is provided as **Appendix B.**

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release.

1.3 Project Objective

The primary objectives of Ensolum's scope of services were to document soil characterization and delineation actions performed at the Site were completed in accordance with the applicable NMOCD regulatory RWP guidelines and to document those concentrations of constituents of concern (COCs) present in soil remaining on-Site required to be addressed.

2.0 SOIL SAMPLING AND INITIAL REMEDIAL ACTIONS

WPX conducted initial remediation activities for Incident Number nAPP2200728755 by excavating impacted soil on pad for off-Site disposal. WSP conducted soil sampling activities to verify the presence or absence of soil impacts associated with the subject releases.

2.1 Delineation Activities

nAP1712951426 and nAPP2200728755

On January 25, 2022 and Febraury 28, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH17): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 3 foot bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2A in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil sampling logs **(Appendix C).** The soil samples were placed directly into a pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C), under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation during delineation activities is included in **Appendix D.**

nAB1728553778 and nAB1728551205

On March 3, 2022, delineation activities were conducted by WSP to confirm the presence or absence of impacted soil in areas associated with the subject release area. Delineation samples were collected in boreholes advanced with a hand auger (samples designated BH). Delineation activites were directed by field sceening soil for VOCs utilizing a calibrated PID and chloride using Hach® chloride QuanTab® test strips. A total of two soil samples were collected from each delineation soil sample location (BH01 through BH10): the sample with the highest observed field screening (ranging from 0.5 foot bgs to 2 feet bgs) and the greatest depth (4 feet bgs). The location of the delineation samples are shown in **Figure 2B in Appendix A**. Field screening results and observations for each delineation soil sample were recorded on lithologic/soil

sampling logs **(Appendix C).** The soil samples were handled, collected and analyzed as previously described. Photographic documentation during delineation activities is included in **Appendix D.**

3.0 SOIL SAMPLING RESULTS

nAP1712951426 and nAPP2200728755

Laboratory analytical results for delineation soil samples BH03, BH04, BH10, BH13, BH16 and BH17 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH01, BH02, BH05 through BH09, BH11, BH12, BH14 and BH15 indicated COCs were within the applicable Closure Criteria and/or reclamation standard requirement.

nAB1728553778 and nAB1728551205

Laboratory analytical results for delineation soil samples BH01 through BH03 indicated COCs were above the reclamation standard requirement. Based on the current extent of soil characterization at the Site, it appears that vertical impacts exceeding Closure Criteria do not exceed 4 feet bgs in the pasture. Laboratory analytical results for delineation soil samples BH04 through BH10 indicated COCs were within the applicable reclamation standard requirement.

Laboratory analytical results are summarized in the **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

4.0 DEFFERAL REQUEST

nAB1632647780

The Deferral Request for Incident Number NRM2034258716, authored by WSP, was approved by NMOCD on January 13, 2022 and overlapped historical Incident Number nAB1632647780. WPX respectfully requests NMOCD review the laboratory analytical data as it can be applicable for this release to provide vertical and lateral definition of the historical release. All previous remediation activities and soil sample analytical results can be referenced in the original approved Deferral Request.

Based on the summary of the approved Deferral Request, the following findings and conclusions regarding the incident are presented:

- Based on laboratory analytical results of confirmation and delineation soil samples for Incident Number NRM2034258716, impacts associated with Incident Number nAB1632647780 were confirmed to have remained within the secondary containment, as documented on the Form C-141;
- Based on soil laboratory analytical results and extent of release area within the secondary earthen berm containment, an estimated **102 cubic yards** was approved to be deferred until the Plugging and Abandonment or recontruction of the Site, whichever comes first.

Based on the findings and conclusions of this approved Deferral Report and review and applicability to historical Incident Number nAB1632647780, No Further Action appears warranted at this time and the Site should be respectfully considered for Deferral by the NMOCD using the previously collected data.

5.0 REMEDIATION WORK PLAN

Based on the results documented in this report, the following findings and conclusions regarding the releases are presented:

- Areas within the top four feet of the pasture contain impacted soil exceeding the reclamation standard; however, impacts exceeding Closure Criteria within the area of concerns for nAB1728551205, nAB1728553778 and nAB1712951426 and release extent for nAPP220728755 do not appear to exceed 4 feet bgs;
- Based on existing soil analytical results and mapped extent of the release areas, an estimated **6,840 cubic yards** of impacted soil is anticipated to be remediated and/or removed from the Site for disposal in accordance with state and federal regulations. The current proposed excavation extent is depicted on **Figure 4 in Appendix A**;
- Based on laboratory analytical results for delineation samples from BH01, BH06, BH05, BH09, BH11 and BH12 (nAP1712951426 and nAPP2200728755), no remediation efforts are required in these areas. No areas on pad exceed the Closure Criteria for the Site.

Based on the conclusions presented above, the following remediation is proposed:

- Soil characterization and investigation is required to determine the lateral and vertical extent of impact associated with Incident Number NHMP1412241998. A proposed tract that aligns with details provided on the C-141 is provided on **Figure 3 in Appendix A.** Ensolum will conduct delineation activities to verify the presence or absence of soil impacts associated with this incident. Laboratory analytical results will be used to update additional cubic yards of soil to be remediated, if any;
- Horizontal delineation of all releases associated with nAB1728551205, nAB1728553778 and nAB1712951426 and nAPP220728755 will be defined through delineation samples or 5-point composite sidewall samples following the removal of residual impacts;
- Impacted soil will be excavated from the top four feet of the areas in the pasture containing soil exceeding the reclamation standard. Excavated soil will then be transferred to: (a) a New Mexico approved landfill facility for disposal and the excavation will be backfilled with Non-waste containing soil, as defined by “Procedures for Implementation of the Spill Rule” (September 6, 2019) or (b) an on-site ex-situ treatment cell for chloride extraction. Following review of the additional soil characterization at the Site, WPX will re-evaluate the proposed remedial options and submit a revised RWP detailing the option (b) treatment and sampling plan for NMOCD review, if selected.
- Surface scraping may be conducted to remove any minor surficial staining in areas that are delineated;

- Access for remediation or disturbance that occurs offsite requires BLM approval with additional coverage. WPX will prepare and submit documentation for proposed work areas before initiating corrective actions;

- There are areas off pad (ex. Right-of-Way) that will likely require third-party operator oversight and additional safety measures before or during remediation activities near their respective subsurface pipelines. WPX or the third party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a WPX or third-party operator safety representative.

- Subsequent to the completion of remediation and receipt of soil confirmation sample results documenting that impacted soil had been removed, the excavation will be backfilled with clean and/or treated soil and restored to “as close to its original state” as possible.

5.1 Proposed Sampling

WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 193 floor samples within the release extent, excluding sidewall samples. Due to the large extent of the impacted areas (38,500 square feet), Ensolum proposes increasing the confirmation sampling size to collecting a 5-point composite sample to represent each 1,000 square foot area for the floors and sidewalls of the excavation.

5.2 Proposed Schedule

WPX believes the scope of work described above will meet requirements set forth in NMAC 19.15.29.13 and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

Based on the extent of corrective measures, planning and potential third-party operator oversight at the Site, WPX anticipates beginning remediation by **January 2023.**

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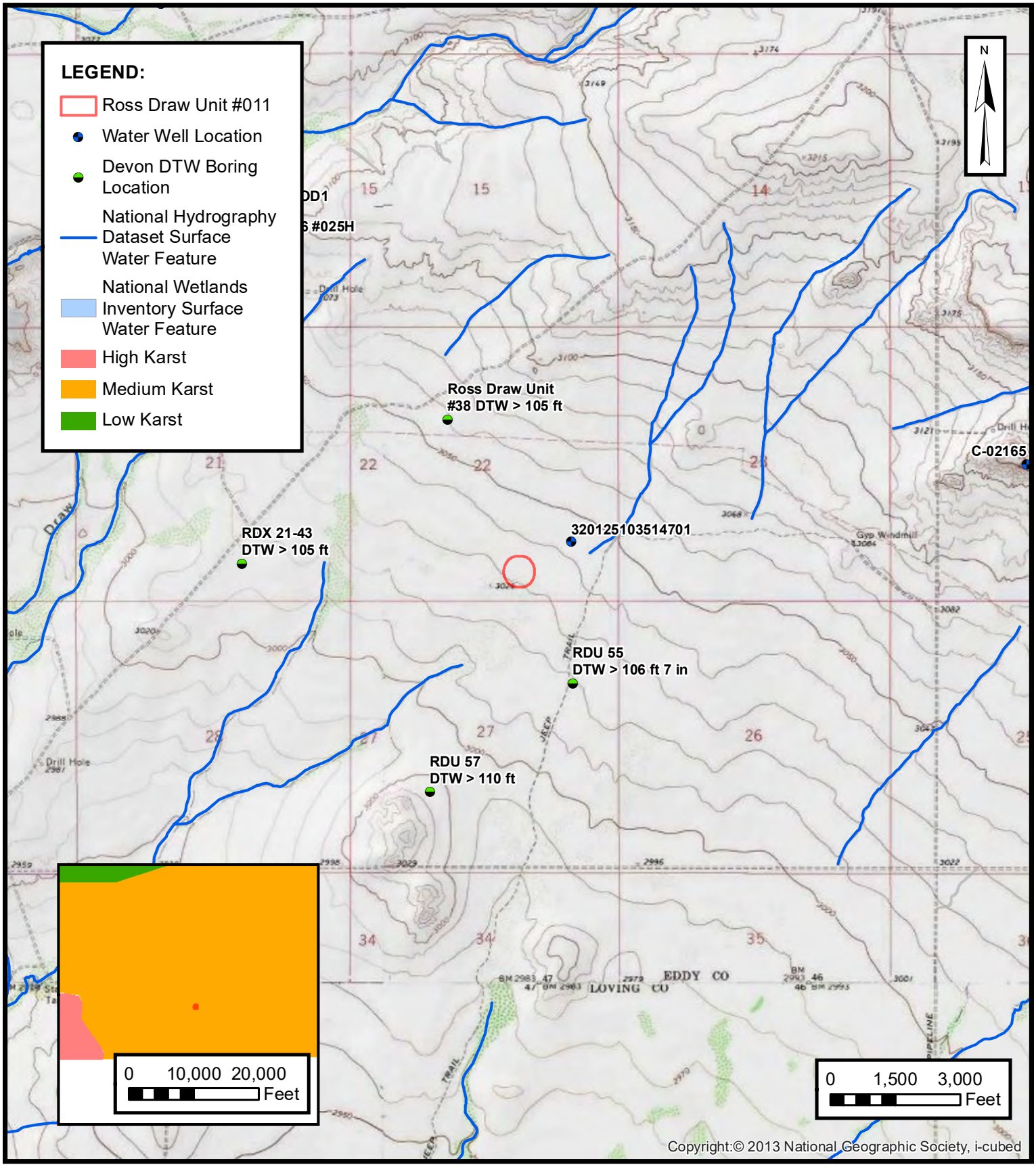
APPENDIX A

Figures



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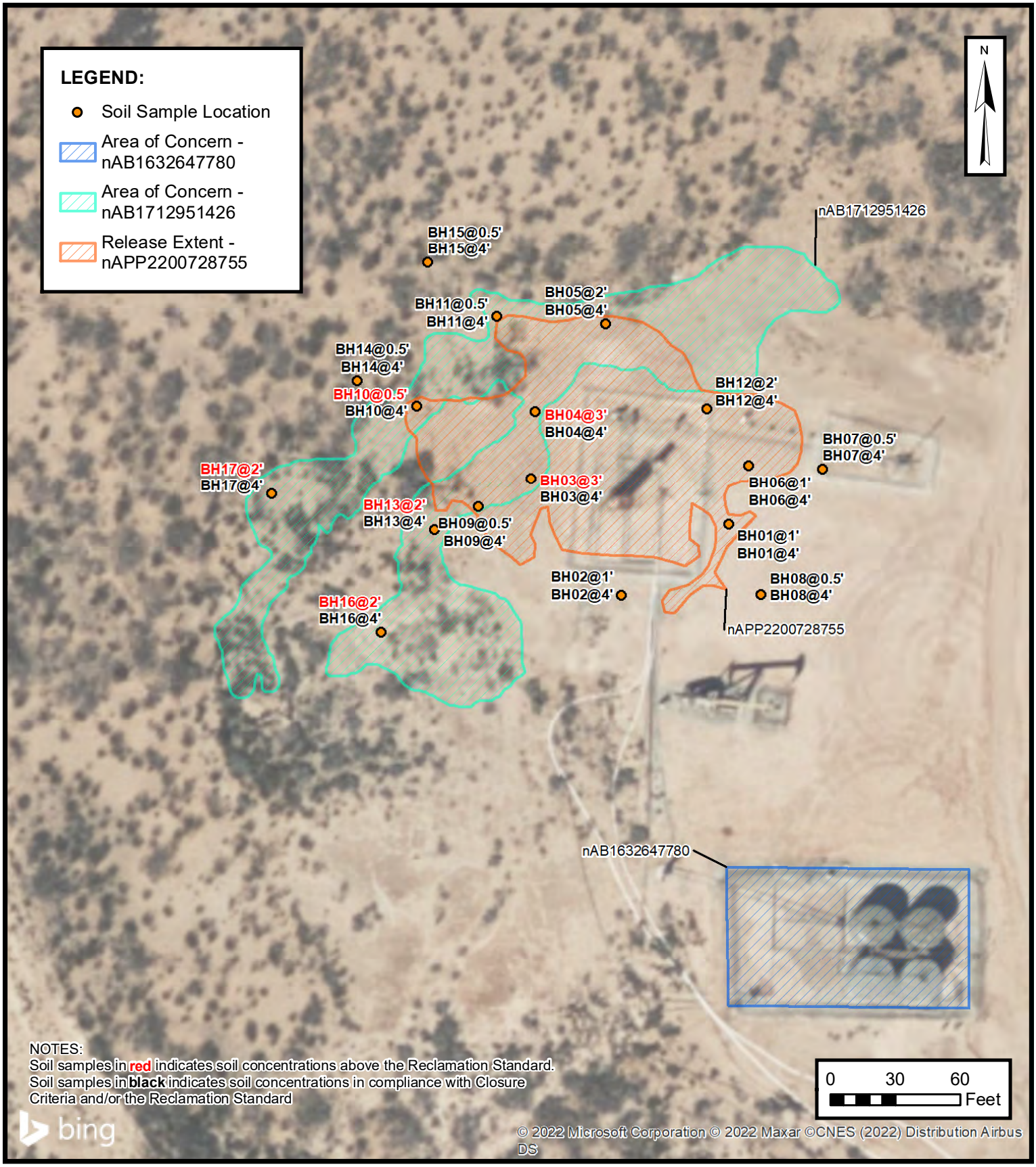
Environmental & Hydrogeologic Consultants

SITE MAP

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
1



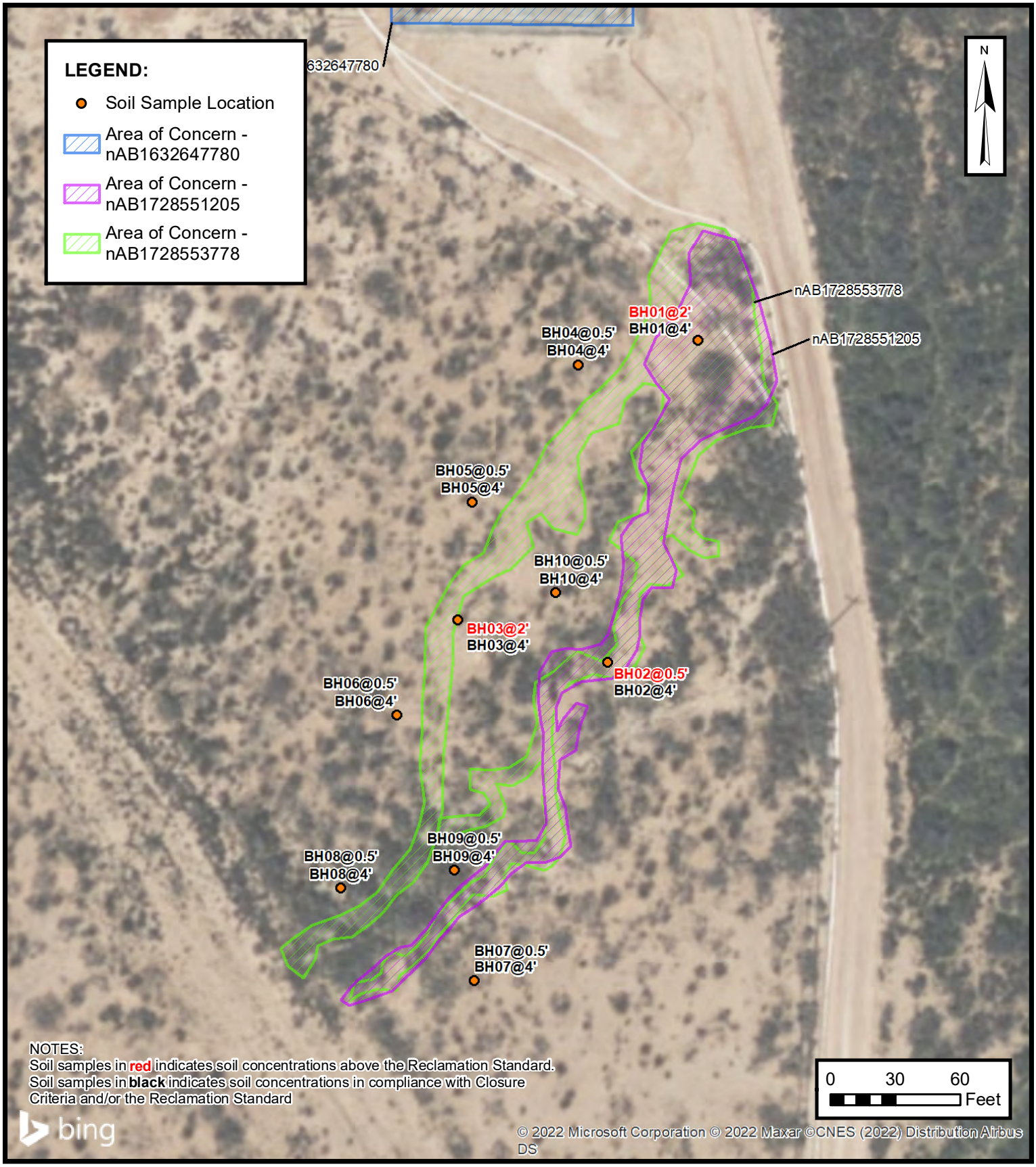
ENSOLUM
Environmental & Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATION MAP 2A

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2A



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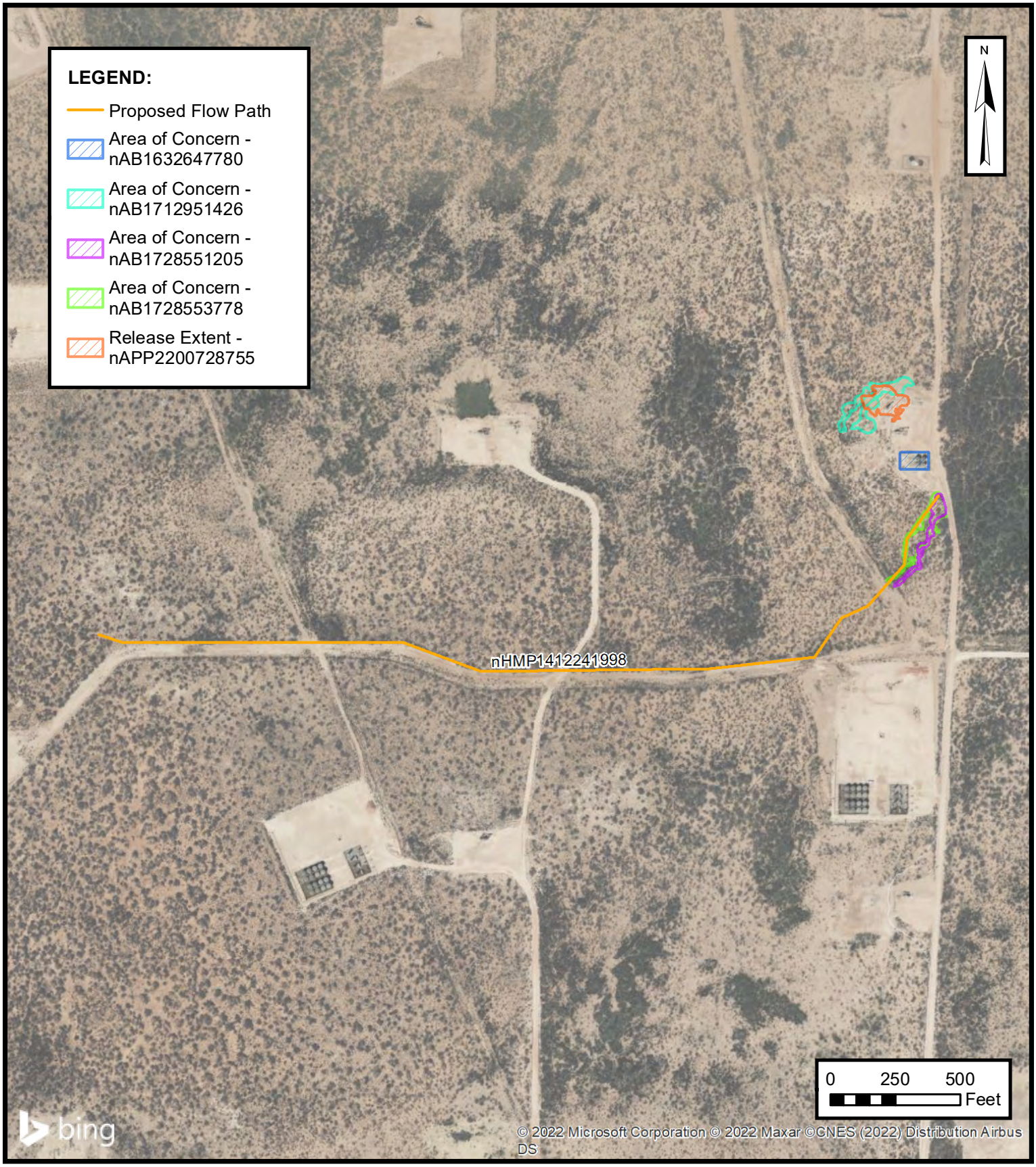
DELINEATION SOIL SAMPLE LOCATION MAP 2B

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
2B



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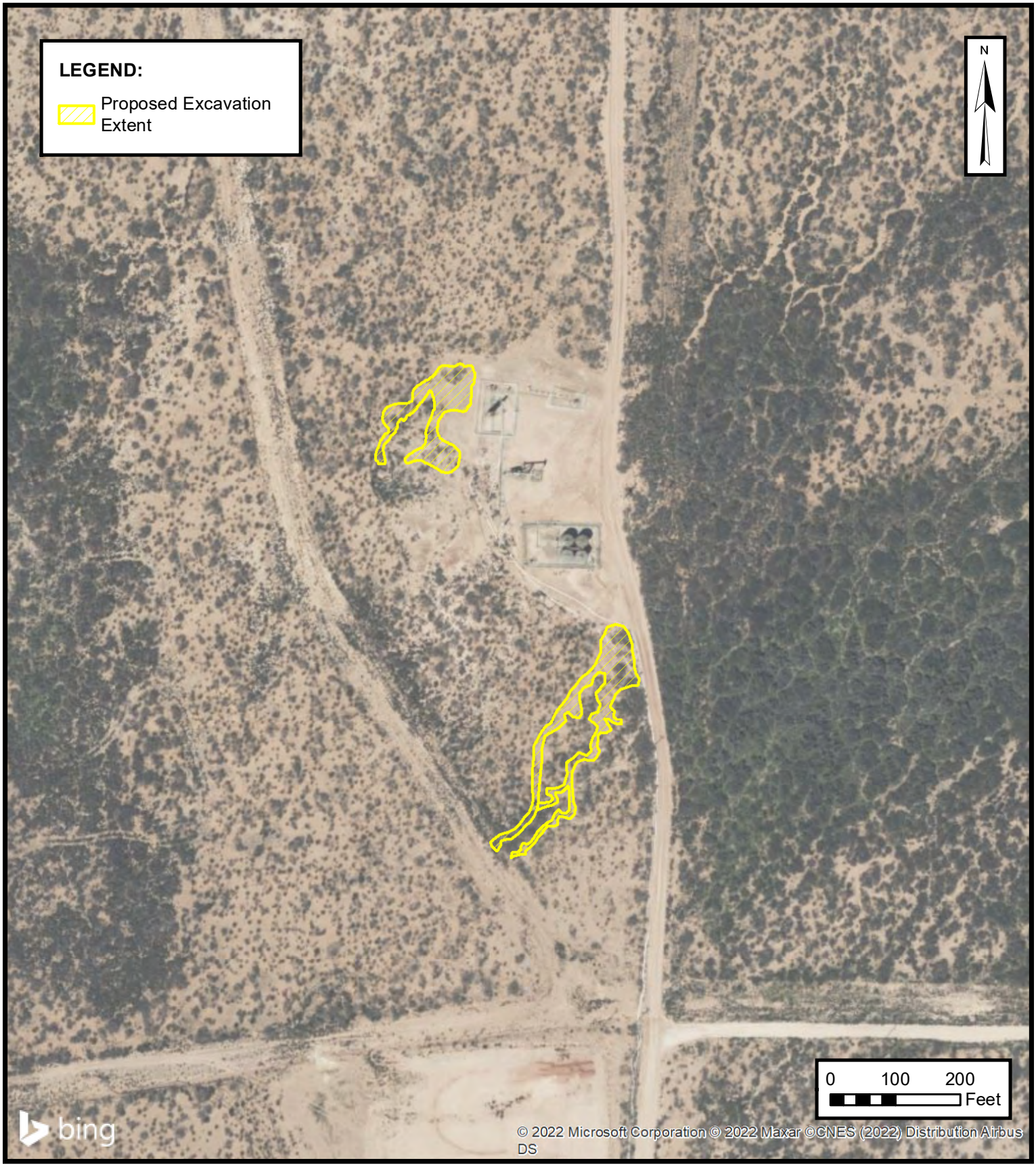
AREA OF CONCERN TRACT

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
3



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Environmental & Hydrogeologic Consultants

PROPOSED EXCAVATION AREAS

WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico
32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE
4

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APPENDIX B

Well Record

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: Ross Draw Unit #55	
Date: 12/9/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.016165
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-101'7"		Boring Total Depth (ft. BGS): 106'7"	Longitude: -103.86346
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 101'7" - 106'7"		Well Total Depth (ft. BGS): 106'7"	Depth to Water (ft. BTOC): >106' 7" / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale pink to buff colored poorly graded sand with minor silt	
5										
10										
15										
20	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand	
25										
30										
35	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel	
40										
45										
50										
55										
60										
65	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel	
70										
75										
80										
85										
90	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand	
95										
100	NM	M	D	N	N	NM	SC	NS	Dark grey fine sand with moderate silt and clay - TD 106'7"	
106'7"										

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APPENDIX C

Lithologic Soil Sampling Logs

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	Sample Name: BH01	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022700°, -103.866936°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, some staining, H-C odor.
M	1,260	1.6	Y	BH01	1	1		At 2', decrease in staing to slight staining, decrease in odor to slight H-C ofor.
								At 3', no staining, no odor.
M	816	0.9	Y		2	2		
M	1,020	0.2	N		3	3		
M	1,176	0.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH02	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022624°, -103.867072°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	<128	0.1	N	BH02	1	1		
M	<128	0.1	N		2	2		
M	<128	0	N		3	3		
M	<128	0.2	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022749°, -103.867186°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, slight odor.
								At 3', no odor.
M	<128	2.5	Y		1	1		
M	280	2.5	N		2	2		
M	1,544	1.1	N	BH03	3	3		
M	1,896	1.4	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM

Sample Name: BH04	Date: 1-25-2022	
Site Name: Ross Draw Unit #011		
Incident Number: nAPP2200728755 & nAB1712951426		
Job Number: 03A1987006		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022821°, -103.867181°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, slight staining, slight odor.
								At 2', no staining.
M	180	27.6	Y		1	1		At 3', color change to light brown, no odor.
								At 4' color change to dark brown.
M	1,260	9.9	N		2	2		
M	2,552	14.5	N	BH04	3	3		
M	1,772	20.2	N	BH04	4	4	TD	Total depth at 4' bgs.

ENSOLUM

Sample Name: BH05	Date: 1-25-2022
Site Name: Ross Draw Unit #011	
Incident Number: nAPP2200728755 & nAB1712951426	
Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR / Method: Hand Auger
Coordinates: 32.022915°, -103.867092°	Hole Diameter: 4" / Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor. At 2', color change to light brown.
M	152	0.1	N	BH05	1	1		
M	<128	0.1	N		2	2		
M	<128	0.1	N		3	3		
M	<128	0.1	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH06	Date: 1-25-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.022763°, -103.866911°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4', SAND, dry, dark brown, poorly graded with silt, no staining, no odor.
M	488	0.1	N	BH06	1	1		At 3', color change to light brown.
M	444	0	N		2	2		
M	444	0.9	N		3	3		
M	356	0.4	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH07	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 3 32.022759°, -103.866818°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	588	0.1	N	BH07	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	<128	0.7	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.2	N		2	2		
						3	CCHE	3-4',CALICHE, dry, light brown-brown, well graded, very fine-medium grain, no stain, no odor.
D	444	0.2	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022624°, -103.866896°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.1	N	BH08	0.5	0	CCHE	0-1',CALICHE, dry, light brown-brown, well graded, very fine-fine grain, no stain, no odor.
D	152	0.1	N		1	1	SP-SM	1-3',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	<128	0.1	N		2	2		
						3		
D	<128	0.1	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH09	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022719°, -103.867253°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	444	0.5	N	BH09	0.5	0	SP-SM	0-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	820	0.9	N		1	1		
D	1,360	0.8	N		2	2		
						3		At 3', color change to light brown-brown.
D	756	1.8	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM

Sample Name: BH10	Date: 2-18-2022
Site Name: Ross Draw Unit #011	
Incident Number: nAPP2200728755 & nAB1712951426	
Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM / Method: Hand Auger
Coordinates: 32.022827°, -103.867331°	Hole Diameter: 4" / Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	280	0.5	N	BH10	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	0.9	N		1	1	SP-SM	1-3', SAND, dry, reddish brown-brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,224	0.8	N		2	2		
						3	SM	3-4', SILTY SAND, dry, tan-light brown, fine-medium grain, no stain, no odor.
D	11,016	1.8	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH11	Date: 2-18-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022923°, -103.867229°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<128	2.2	N	BH11	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<128	4.3	N		1	1		
D	120	2.3	N		2	2		
						3	CCHE	3-4', CALICHE, dry, tan, well graded, fine-medium grain, no stain, no odor.
D	2,188	4.3	N	BH11	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH12	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022824°, -103.866964°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,556	0.3	N		0.5	0	SW-SM	0-1', SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	1,780	0.4	N		1	1	SP-SM	1-4', SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	2,200	0.9	N	BH12	2	2		
						3		
D	1,556	0.3	N	BH12	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH13	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022694°, -103.867308°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	142	N/A	N		0.5	0	SP	0-2', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor. Note: PID not calibrating. Only screening for chlorides.
D	1,360	N/A	N		1	1		At 1', some silt.
D	2,840	N/A	N	BH13	2	2	SW-SM	2-3', SAND, dry, brown, well graded with silt, very fine- fine grain, no stain, no odor.
						3	CCHE	3-4', CALICHE, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	4,884	N/A	N	BH13	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH14	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022854°, -103.867406°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	360	N/A	N	BH14	0.5	0	SP	0-4', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3		At 4', some silt.
D	120	N/A	N	BH14	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH15	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022981°, -103.867317°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N	BH15	0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	<120	N/A	N		2	2		
						3	SW	3-4', SAND, dry, light brown, well graded, very fine-fine grain, no stain, no odor.
D	<120	N/A	N	BH15	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH16	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022584°, -103.867375°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
D	1,360	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	1,556	N/A	N	BH16	2	2		
						3	SW-SM	3-4', SAND, dry, tan-light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	3,076	N/A	N	BH16	4	4	TD	Total depth at 4' bgs.

ENSOLUM

	Sample Name: BH17	Date: 2-28-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAPP2200728755 & nAB1712951426	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.022733°, -103.867514°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	N/A	N		0.5	0	SP	0-3', SAND, dry, brown, poorly graded, very fine-fine grain, organics, no stain, no odor.
								At 1', no organics.
D	<120	N/A	N		1	1		NOTE: PID not calibrating. Only screening for chlorides.
D	888	N/A	N	BH17	2	2		
						3	SW-SM	3-4', SAND, dry, light brown, well graded with silt, very fine-fine grain, no stain, no odor.
D	6,160	N/A	N	BH17	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH01	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021844°, -103.866550°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	6,160	1.5	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	6,160	1	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	6,664	0.8	N	BH01	2	2		
						3		
D	7,824	1.1	N	BH01	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH02	Date: 3-3-2022	
	Site Name: Ross Draw Unit #011		
	Incident Number: nAB1728551205 & nAB1728553778		
	Job Number: 03A1987006		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger	
Coordinates: 32.021498°, -103.866665°	Hole Diameter: 4"	Total Depth: 4'	

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	3,076	0.4	N	BH02	0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	1,664	0.4	N		1	1	SP-SM	1-4',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,452	0.5	N		2	2		
						3		
D	9,244	0.6	N	BH02	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH03	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021543°, -103.866854°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	0.4	N		0.5	0	SP	0-1',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	252	0.3	N		1	1	SP-SM	1-2',SAND, dry, brown, poorly graded with silt, very fine-fine grain, no stain, no odor.
D	1,556	0.3	N	BH03	2	2	SW-SM	2-4',SAND, dry, brown, well graded with silt, very fine-fine grain, no stain, no odor.
						3		
D	7,216	0.9	N	BH03	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH05	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021670°, -103.866836°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	2.6	N	BH05	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	4	N		1	1		
D	<120	3.6	N		2	2		
						3		
D	<120	4.3	N	BH05	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH06	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021442°, -103.866931°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	144	0.7	N	BH06	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	0.8	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	<120	2.9	N	BH06	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH07	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021156°, -103.866833°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.8	N	BH07	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.9	N		1	1		
D	<120	2.1	N		2	2		
						3		
D	120	2.3	N	BH07	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH08	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021256°, -103.867002°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.3	N	BH08	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.4	N		1	1		
D	<120	1.9	N		2	2		
						3		
D	<120	3.6	N	BH08	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH09	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021275°, -103.866859°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.1	N	BH09	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	1.5	N		1	1		
D	<120	1.7	N		2	2		
						3		
D	168	1	N	BH09	4	4	TD	Total depth at 4' bgs.

ENSOLUM	Sample Name: BH10	Date: 3-3-2022
	Site Name: Ross Draw Unit #011	
	Incident Number: nAB1728551205 & nAB1728553778	
	Job Number: 03A1987006	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GM	Method: Hand Auger
Coordinates: 32.021573°, -103.866730°	Hole Diameter: 4"	Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<120	1.7	N	BH10	0.5	0	SP	0-4',SAND, dry, brown, poorly graded, very fine-fine grain, no stain, no odor.
D	<120	3.2	N		1	1		
D	<120	3.2	N		2	2		
						3		
D	<120	4.2	N	BH10	4	4	TD	Total depth at 4' bgs.

ENSOLUM

APPENDIX D

Photographic Log

ENSOLUM

Photographic Log

WPX Energy Permian, LLC.
Ross Draw Unit #011 - Project Location
Ensolum Job Number: 03A1987006

Photograph 1
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 2
Date: January 25, 2022
Description: View of the Site during delineation activities

Photograph 3
Date: February 28, 2022
Description: View of the Site during delineation

Photograph 4
Date: March 3, 2022
Description: View of the Site during delineation activities

ENSOLUM

APPENDIX E

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Delineation Soil Sample Analytical Results										
Incident Number: nAB1712951426 and nAPP220728755										
BH01	1/25/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
BH01	1/25/2022	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	1,320
BH02	1/25/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	15.7
BH02	1/25/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	11.2
BH03	1/25/2022	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	**2,570***
BH03	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,420
BH04	1/25/2022	3	<0.00202	<0.00403	<49.9	68.8	<49.9	68.8	68.8	**3,320***
BH04	1/25/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,610
BH05	1/25/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	134
BH05	1/25/2022	4	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	35.6
BH06	1/25/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	601
BH06	1/25/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH07	2/18/2022	0.5	<0.00199	<0.00398	<50.0	81.7	<50.0	81.7	81.7	582
BH07	2/18/2022	4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	510
BH08	2/18/2022	0.5	<0.00200	<0.00399	<50.0	108	<50.0	108	108	492
BH08	2/18/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	12.9
BH09	2/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	365
BH09	2/18/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	347
BH10	2/18/2022	0.5	<0.00200	<0.00399	<250	**1,660**	<250	**1,660**	**1,660**	**906***
BH10	2/18/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	18,000
BH11	2/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	135
BH11	2/18/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	3,220
BH12	2/28/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,610
BH12	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,360
BH13	2/28/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,430***
BH13	2/28/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	7,260

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH14	2/28/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	464
BH14	2/28/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	115
BH15	2/28/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	77.5
BH15	2/28/2022	4	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	21.4
BH16	2/28/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	**1,940***
BH16	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,650
BH17	2/28/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	**1,090***
BH17	2/28/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,280
Incident Number: nAB1728551205 and nAB1728553778										
BH01	3/3/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	**8,700***
BH01	3/3/2022	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9,220
BH02	3/3/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	**4,300***
BH02	3/3/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,350
BH03	3/3/2022	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	**3,310***
BH03	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH04	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	45.3
BH04	3/3/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.1
BH05	3/3/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	5.80
BH05	3/3/2022	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	62.6
BH06	3/3/2022	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
BH06	3/3/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.4
BH07	3/3/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5.01
BH07	3/3/2022	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	130
BH08	3/3/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.90
BH08	3/3/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	57.1

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
WPX Energy Permian, LLC. - Ross Draw Unit #011
Eddy County, New Mexico

Ensolum Project No. 03A1987006

Sample Name	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH09	3/3/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	10.4
BH09	3/3/2022	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	174
BH10	3/3/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	5.95
BH10	3/3/2022	4	<0.00199	<0.00398	<50.0	70.6	<50.0	70.6	70.6	34.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil Range Organics

TPH: Total Petroleum Hydrocarbon

*Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria and/or reclamation requirement for Soils Impacted by a Release*

** - indicates top 4 feet in the pasture area impacted by the release, NMAC 19.15.29.13. D (1) that will be reclaimed following remediation.*

ENSOLUM

APPENDIX F

Laboratory Analytical Reports & Chain-of-Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1876-1
Laboratory Sample Delivery Group: Eddy
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
2/3/2022 12:01:30 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-1876-1
SDG: Eddy

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Job ID: 890-1876-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1876-1

Receipt
The samples were received on 1/26/2022 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH05 (890-1876-9), BH05 (890-1876-10), BH06 (890-1876-11), (890-1883-A-1-C MS) and (890-1883-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18029 and analytical batch 880-18094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 14:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:34*	*1*

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 14:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/28/22 12:00	01/28/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/31/22 11:10*	*02/01/22 11:56*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 16:12	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/28/22 12:00	01/28/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 12:18	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:18*	*1*

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/28/22 12:00	01/28/22 16:32	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/28/22 12:00	01/28/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 12:40*	*1*

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/28/22 12:00	01/28/22 16:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/28/22 12:00	01/28/22 16:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/28/22 12:00	01/28/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/28/22 12:00*	*01/28/22 16:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2570**		25.3		mg/Kg			02/01/22 18:58	5

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:13*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-6
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2420**	**F1**	24.8		mg/Kg			02/01/22 19:04	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/28/22 12:00	01/28/22 17:34	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/28/22 12:00	01/28/22 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**68.8**		49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08
Sample Depth: 3

Lab Sample ID: 890-1876-7
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**68.8**		49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/31/22 11:10*	*02/01/22 13:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3320**		25.0		mg/Kg			02/01/22 19:22	5

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 17:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/28/22 12:00*	*01/28/22 17:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-8
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2610		25.0		mg/Kg			02/01/22 19:38	5

Client Sample ID: BH05
Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08
Sample Depth: 2

Lab Sample ID: 890-1876-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 12:00	01/28/22 18:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/28/22 12:00	01/28/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/31/22 11:10	02/01/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 14:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.02		mg/Kg			02/01/22 19:56	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH05
Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:35	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/28/22 12:00	01/28/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/02/22 16:52	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*
o-Terphenyl	*76*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.6**		4.98		mg/Kg			02/02/22 10:49	1

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/28/22 12:00	01/28/22 18:55	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/28/22 12:00	01/28/22 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08
Sample Depth: 1

Lab Sample ID: 890-1876-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/28/22 12:00*	*01/28/22 18:55*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*
o-Terphenyl	*78*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**601**		5.03	mg/Kg			02/01/22 20:08	1

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/28/22 12:00	01/28/22 19:16	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/28/22 12:00	01/28/22 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/28/22 12:00*	*01/28/22 19:16*	*1*

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06

Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08
Sample Depth: 4

Lab Sample ID: 890-1876-12

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/31/22 11:10*	*02/01/22 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		4.98		mg/Kg			02/01/22 20:14	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1876-1	BH01	111	100
890-1876-2	BH01	117	101
890-1876-3	BH02	123	103
890-1876-4	BH02	114	101
890-1876-5	BH03	108	75
890-1876-6	BH03	121	89
890-1876-7	BH04	116	82
890-1876-8	BH04	112	99
890-1876-9	BH05	130	100
890-1876-10	BH05	123	112
890-1876-11	BH06	115	104
890-1876-12	BH06	128	89
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1876-1	BH01	81	90
890-1876-2	BH01	81	92
890-1876-3	BH02	79	90
890-1876-4	BH02	77	86
890-1876-5	BH03	82	93
890-1876-6	BH03	76	84
890-1876-7	BH04	91	103
890-1876-8	BH04	72	86
890-1876-9	BH05	68 S1-	76
890-1876-10	BH05	66 S1-	76
890-1876-11	BH06	69 S1-	78
890-1876-12	BH06	77	86
890-1883-A-1-C MS	Matrix Spike	69 S1-	69 S1-
890-1883-A-1-D MSD	Matrix Spike Duplicate	69 S1-	70
LCS 880-18143/2-A	Lab Control Sample	90	96
LCSD 880-18143/3-A	Lab Control Sample Dup	89	93
MB 880-18143/1-A	Method Blank	82	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*

Lab Sample ID: LCS 880-17922/1-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07650		mg/Kg		76	70 - 130		
Toluene			0.100	0.07336		mg/Kg		73	70 - 130		
Ethylbenzene			0.100	0.07414		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1514		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07781		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-17922/2-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene			0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene			0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene			0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130		
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 890-1872-A-3-D MSD
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-18143/1-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18143

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 11:10	02/01/22 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/31/22 11:10*	*02/01/22 09:23*	*1*

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	846.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1190		mg/Kg		119	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-18143/2-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18143

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-18143/3-A
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18143

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.5		mg/Kg		93	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1204		mg/Kg		120	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1883-A-1-C MS
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	851.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	970.6		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-1883-A-1-D MSD
Matrix: Solid
Analysis Batch: 18225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	967.9		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	999.6		mg/Kg		98	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	70		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/01/22 17:20	1

Lab Sample ID: LCS 880-18029/2-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	231.6		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-18029/3-A
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	261.3		mg/Kg		105	90 - 110	12	20

Lab Sample ID: 890-1876-6 MS
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2420	F1	1240	3559		mg/Kg		92	90 - 110		

Lab Sample ID: 890-1876-6 MSD
Matrix: Solid
Analysis Batch: 18094

Client Sample ID: BH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2420	F1	1240	3183	F1	mg/Kg		62	90 - 110	11	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	5035	
890-1876-2	BH01	Total/NA	Solid	5035	
890-1876-3	BH02	Total/NA	Solid	5035	
890-1876-4	BH02	Total/NA	Solid	5035	
890-1876-5	BH03	Total/NA	Solid	5035	
890-1876-6	BH03	Total/NA	Solid	5035	
890-1876-7	BH04	Total/NA	Solid	5035	
890-1876-8	BH04	Total/NA	Solid	5035	
890-1876-9	BH05	Total/NA	Solid	5035	
890-1876-10	BH05	Total/NA	Solid	5035	
890-1876-11	BH06	Total/NA	Solid	5035	
890-1876-12	BH06	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8021B	17922
890-1876-2	BH01	Total/NA	Solid	8021B	17922
890-1876-3	BH02	Total/NA	Solid	8021B	17922
890-1876-4	BH02	Total/NA	Solid	8021B	17922
890-1876-5	BH03	Total/NA	Solid	8021B	17922
890-1876-6	BH03	Total/NA	Solid	8021B	17922
890-1876-7	BH04	Total/NA	Solid	8021B	17922
890-1876-8	BH04	Total/NA	Solid	8021B	17922
890-1876-9	BH05	Total/NA	Solid	8021B	17922
890-1876-10	BH05	Total/NA	Solid	8021B	17922
890-1876-11	BH06	Total/NA	Solid	8021B	17922
890-1876-12	BH06	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	Total BTEX	
890-1876-2	BH01	Total/NA	Solid	Total BTEX	
890-1876-3	BH02	Total/NA	Solid	Total BTEX	
890-1876-4	BH02	Total/NA	Solid	Total BTEX	
890-1876-5	BH03	Total/NA	Solid	Total BTEX	
890-1876-6	BH03	Total/NA	Solid	Total BTEX	
890-1876-7	BH04	Total/NA	Solid	Total BTEX	
890-1876-8	BH04	Total/NA	Solid	Total BTEX	
890-1876-9	BH05	Total/NA	Solid	Total BTEX	
890-1876-10	BH05	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA

Prep Batch: 18143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015NM Prep	
890-1876-2	BH01	Total/NA	Solid	8015NM Prep	
890-1876-3	BH02	Total/NA	Solid	8015NM Prep	
890-1876-4	BH02	Total/NA	Solid	8015NM Prep	
890-1876-5	BH03	Total/NA	Solid	8015NM Prep	
890-1876-6	BH03	Total/NA	Solid	8015NM Prep	
890-1876-7	BH04	Total/NA	Solid	8015NM Prep	
890-1876-8	BH04	Total/NA	Solid	8015NM Prep	
890-1876-9	BH05	Total/NA	Solid	8015NM Prep	
890-1876-10	BH05	Total/NA	Solid	8015NM Prep	
890-1876-11	BH06	Total/NA	Solid	8015NM Prep	
890-1876-12	BH06	Total/NA	Solid	8015NM Prep	
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015 NM	
890-1876-2	BH01	Total/NA	Solid	8015 NM	
890-1876-3	BH02	Total/NA	Solid	8015 NM	
890-1876-4	BH02	Total/NA	Solid	8015 NM	
890-1876-5	BH03	Total/NA	Solid	8015 NM	
890-1876-6	BH03	Total/NA	Solid	8015 NM	
890-1876-7	BH04	Total/NA	Solid	8015 NM	
890-1876-8	BH04	Total/NA	Solid	8015 NM	
890-1876-9	BH05	Total/NA	Solid	8015 NM	
890-1876-10	BH05	Total/NA	Solid	8015 NM	
890-1876-11	BH06	Total/NA	Solid	8015 NM	
890-1876-12	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 18225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-1	BH01	Total/NA	Solid	8015B NM	18143
890-1876-2	BH01	Total/NA	Solid	8015B NM	18143
890-1876-3	BH02	Total/NA	Solid	8015B NM	18143
890-1876-4	BH02	Total/NA	Solid	8015B NM	18143
890-1876-5	BH03	Total/NA	Solid	8015B NM	18143
890-1876-6	BH03	Total/NA	Solid	8015B NM	18143
890-1876-7	BH04	Total/NA	Solid	8015B NM	18143
890-1876-8	BH04	Total/NA	Solid	8015B NM	18143
890-1876-9	BH05	Total/NA	Solid	8015B NM	18143
890-1876-10	BH05	Total/NA	Solid	8015B NM	18143
890-1876-11	BH06	Total/NA	Solid	8015B NM	18143
890-1876-12	BH06	Total/NA	Solid	8015B NM	18143
MB 880-18143/1-A	Method Blank	Total/NA	Solid	8015B NM	18143
LCS 880-18143/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18143
LCSD 880-18143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18143
890-1883-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18143

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

GC Semi VOA (Continued)

Analysis Batch: 18225 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1883-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18143

HPLC/IC

Leach Batch: 18029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	DI Leach	
890-1876-6	BH03	Soluble	Solid	DI Leach	
890-1876-7	BH04	Soluble	Solid	DI Leach	
890-1876-8	BH04	Soluble	Solid	DI Leach	
890-1876-9	BH05	Soluble	Solid	DI Leach	
890-1876-10	BH05	Soluble	Solid	DI Leach	
890-1876-11	BH06	Soluble	Solid	DI Leach	
890-1876-12	BH06	Soluble	Solid	DI Leach	
MB 880-18029/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1876-6 MS	BH03	Soluble	Solid	DI Leach	
890-1876-6 MSD	BH03	Soluble	Solid	DI Leach	

Analysis Batch: 18094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1876-5	BH03	Soluble	Solid	300.0	18029
890-1876-6	BH03	Soluble	Solid	300.0	18029
890-1876-7	BH04	Soluble	Solid	300.0	18029
890-1876-8	BH04	Soluble	Solid	300.0	18029
890-1876-9	BH05	Soluble	Solid	300.0	18029
890-1876-10	BH05	Soluble	Solid	300.0	18029
890-1876-11	BH06	Soluble	Solid	300.0	18029
890-1876-12	BH06	Soluble	Solid	300.0	18029
MB 880-18029/1-A	Method Blank	Soluble	Solid	300.0	18029
LCS 880-18029/2-A	Lab Control Sample	Soluble	Solid	300.0	18029
LCSD 880-18029/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18029
890-1876-6 MS	BH03	Soluble	Solid	300.0	18029
890-1876-6 MSD	BH03	Soluble	Solid	300.0	18029

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH01
Date Collected: 01/25/22 09:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:34	AJ	XEN MID

Client Sample ID: BH01
Date Collected: 01/25/22 09:24
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 14:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 11:56	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:32
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:18	AJ	XEN MID

Client Sample ID: BH02
Date Collected: 01/25/22 09:50
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 12:40	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH03
Date Collected: 01/25/22 10:08
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 16:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 18:58	CH	XEN MID

Client Sample ID: BH03
Date Collected: 01/25/22 10:14
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:04	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:34
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:22	CH	XEN MID

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 17:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH04
Date Collected: 01/25/22 10:40
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		5			18094	02/01/22 19:38	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:20
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 14:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 19:56	CH	XEN MID

Client Sample ID: BH05
Date Collected: 01/25/22 13:25
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18419	02/02/22 16:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/02/22 10:49	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 18:55	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:35	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Client Sample ID: BH06
Date Collected: 01/25/22 14:10
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:08	CH	XEN MID

Client Sample ID: BH06
Date Collected: 01/25/22 14:28
Date Received: 01/26/22 16:08

Lab Sample ID: 890-1876-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	17974	01/28/22 19:16	KL	XEN MID
Total/NA	Analysis	8015 NM		1			18170	01/31/22 13:14	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18143	01/31/22 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18225	02/01/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18029	01/28/22 10:48	CH	XEN MID
Soluble	Analysis	300.0		1			18094	02/01/22 20:14	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-1876-1
SDG: Eddy

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1876-1	BH01	Solid	01/25/22 09:10	01/26/22 16:08	1
890-1876-2	BH01	Solid	01/25/22 09:24	01/26/22 16:08	4
890-1876-3	BH02	Solid	01/25/22 09:32	01/26/22 16:08	1
890-1876-4	BH02	Solid	01/25/22 09:50	01/26/22 16:08	4
890-1876-5	BH03	Solid	01/25/22 10:08	01/26/22 16:08	3
890-1876-6	BH03	Solid	01/25/22 10:14	01/26/22 16:08	4
890-1876-7	BH04	Solid	01/25/22 10:34	01/26/22 16:08	3
890-1876-8	BH04	Solid	01/25/22 10:40	01/26/22 16:08	4
890-1876-9	BH05	Solid	01/25/22 13:20	01/26/22 16:08	2
890-1876-10	BH05	Solid	01/25/22 13:25	01/26/22 16:08	4
890-1876-11	BH06	Solid	01/25/22 14:10	01/26/22 16:08	1
890-1876-12	BH06	Solid	01/25/22 14:28	01/26/22 16:08	4

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland TX 79705	City, State ZIP:	→
Phone:	251-702-2329	Email:	Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	EDDY	Due Date:	
Sampler's Name:	Mercy Ranch	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T-NM001	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2	1.0
Total Containers:		Corrected Temperature:	1.0	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (300.0)	Sample Comments
BH01	S	11/25/2022	0910	1'	Grab		X	X	X	
BH01	C	11/25/2022	0924	4'			X	X	X	
BH02	S	11/25/2022	0932	1'			X	X	X	
BH02	S	11/25/2022	0950	4'			X	X	X	
BH03	S	11/25/2022	1005	3'			X	X	X	
BH03	C	11/25/2022	1014	4'			X	X	X	
BH04	S	11/25/2022	1034	3'			X	X	X	
BH04	S	11/25/2022	1045	4'			X	X	X	
BH05	S	11/25/2022	1320	1'			X	X	X	
BH05	S	11/25/2022	1325	4'			X	X	X	

890-1876 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 N A Street	Address:	→
City, State ZIP:	Midland Tx 79705	City, State ZIP:	→
Phone:	281-702-2329	Email:	Anna-Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	☑ Routine ☐ Rush	
Project Location:	Eddy	Due Date:	
Sampler's Name:	Macy Roach	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	31403360.031		

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:	Slight Frost	
Total Containers:		Corrected Temperature:	Page	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021B)	TPH (EPA 8015 Mod)	Chloride (EPA 300.0)
BH06	S	1/25/2022	1410	1'	Grab			X	X	X
BH06	S	1/25/2022	1428	4'	↓			X	X	X

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Macy	N. Clark	1/26/22 4:09	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1876-1
SDG Number: Eddy

Login Number: 1876
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/28/22 12:32 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2003-1
Laboratory Sample Delivery Group: 31403360.03
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/3/2022 3:57:39 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2003-1
SDG: 31403360.03

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Job ID: 890-2003-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2003-1

Receipt
The samples were received on 2/23/2022 11:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: (890-2009-A-3-I), (890-2009-A-3-G MS) and (890-2009-A-3-H MSD) at 25.0, 25.0 and 25.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-20605 and analytical batch 880-20710 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH10 (890-2003-7), (LCS 880-20253/2-A) and (880-11670-A-1-D MS). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Lab Sample ID: 890-2003-1
Matrix: Solid
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 02:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.7**		50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
Diesel Range Organics (Over C10-C28)	**81.7**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**582**		24.9		mg/Kg			02/27/22 14:24	5

Client Sample ID: BH07

Lab Sample ID: 890-2003-2
Matrix: Solid
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/02/22 16:00	03/03/22 02:59	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/02/22 16:00	03/03/22 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07

Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/02/22 16:00*	*03/03/22 02:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**510**		5.00	mg/Kg			02/27/22 14:33	1

Client Sample ID: BH08

Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 03:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/02/22 16:00	03/03/22 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**108**		50.0	mg/Kg			02/25/22 15:07	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Diesel Range Organics (Over C10-C28)	**108**		50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/24/22 15:51*	*02/25/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**492**		25.1		mg/Kg			02/27/22 14:42	5

Client Sample ID: BH08

Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Lab Sample ID: 890-2003-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/03/22 03:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/03/22 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/02/22 16:00*	*03/03/22 03:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:16*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-4
Matrix: Solid
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		4.98		mg/Kg			02/27/22 14:51	1

Client Sample ID: BH09

Lab Sample ID: 890-2003-5
Matrix: Solid
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 22:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/24/22 15:51	02/25/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		5.05		mg/Kg			02/27/22 14:59	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH09

Lab Sample ID: 890-2003-6
Matrix: Solid
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 05:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**347**		5.00		mg/Kg			02/27/22 15:26	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 22:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/01/22 08:30	03/01/22 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-7
Matrix: Solid
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/01/22 08:30*	*03/01/22 22:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1660**		250	mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
Diesel Range Organics (Over C10-C28)	**1660**		250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
OII Range Organics (Over C28-C36)	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*
o-Terphenyl	*81*		*70 - 130*	*02/24/22 15:51*	*02/25/22 05:38*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**906**		4.99	mg/Kg			02/27/22 15:35	1

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/25/22 15:07	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10

Lab Sample ID: 890-2003-8
Matrix: Solid
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/25/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/24/22 15:51*	*02/25/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18000**		253		mg/Kg			02/27/22 16:01	50

Client Sample ID: BH11

Lab Sample ID: 890-2003-9
Matrix: Solid
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/01/22 08:30	03/01/22 23:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/01/22 08:30	03/01/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:05*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH11

Lab Sample ID: 890-2003-9
Matrix: Solid
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		4.95		mg/Kg			02/27/22 16:10	1

Client Sample ID: BH11

Lab Sample ID: 890-2003-10
Matrix: Solid
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 23:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/01/22 08:30	03/01/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/01/22 08:30*	*03/01/22 23:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/28/22 10:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/25/22 15:07	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*
o-Terphenyl	*116*		*70 - 130*	*02/25/22 08:25*	*02/25/22 17:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3220		25.3		mg/Kg			02/27/22 16:19	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11907-A-1-B MS	Matrix Spike	98	106
880-11907-A-1-C MSD	Matrix Spike Duplicate	94	98
890-2003-1	BH07	88	91
890-2003-2	BH07	78	94
890-2003-3	BH08	88	95
890-2003-4	BH08	59 S1-	92
890-2003-5	BH09	111	97
890-2003-6	BH09	104	93
890-2003-7	BH10	105	102
890-2003-8	BH10	105	101
890-2003-9	BH11	100	90
890-2003-10	BH11	105	103
890-2009-A-3-G MS	Matrix Spike	72	73
890-2009-A-3-H MSD	Matrix Spike Duplicate	122	75
CB MB	Method Blank	51 S1-	99
LCS 880-20526/1-A	Lab Control Sample	98	101
LCS 880-20605/1-A	Lab Control Sample	101	124
LCSD 880-20526/2-A	Lab Control Sample Dup	101	103
LCSD 880-20605/2-A	Lab Control Sample Dup	97	102
MB 880-20526/5-A	Method Blank	97	98
MB 880-20605/5-A	Method Blank	49 S1-	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-11670-A-1-D MS	Matrix Spike	69 S1-	73
880-11670-A-1-E MSD	Matrix Spike Duplicate	82	77
890-2003-1	BH07	88	86
890-2003-2	BH07	96	98
890-2003-3	BH08	76	74
890-2003-4	BH08	98	100
890-2003-5	BH09	81	83
890-2003-6	BH09	83	85
890-2003-7	BH10	54 S1-	81
890-2003-8	BH10	84	89
890-2003-9	BH11	89	85
890-2003-10	BH11	113	116
890-2004-A-1-E MS	Matrix Spike	94	81
890-2004-A-1-F MSD	Matrix Spike Duplicate	92	80
LCS 880-20293/2-A	Lab Control Sample	80	81
LCSD 880-20293/3-A	Lab Control Sample Dup	103	104
MB 880-20293/1-A	Method Blank	105	115

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-20253/2-A	Lab Control Sample	132 S1+	136 S1+										
LCSD 880-20253/3-A	Lab Control Sample Dup	113	128										
MB 880-20253/1-A	Method Blank	97	102										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20526/5-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20526

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/01/22 08:30	03/01/22 13:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/01/22 08:30	03/01/22 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/01/22 08:30*	*03/01/22 13:39*	*1*

Lab Sample ID: LCS 880-20526/1-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09731		mg/Kg		97	70 - 130		
Toluene			0.100	0.09402		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09440		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2156		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1049		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-20526/2-A
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20526

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1030		mg/Kg		103	70 - 130	6	35
Toluene			0.100	0.09946		mg/Kg		99	70 - 130	6	35
Ethylbenzene			0.100	0.1007		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2324		mg/Kg		116	70 - 130	7	35
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.0498	U F1	0.101	0.8104	F1	mg/Kg		804	70 - 130		
Toluene	<0.0498	U F1 F2	0.101	1.626	F1	mg/Kg		1613	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2009-A-3-G MS
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.0498	U F1 F2	0.101	2.379	F1	mg/Kg		2360	70 - 130
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.202	9.133	F1	mg/Kg		4530	70 - 130
o-Xylene	<0.0498	U F1 F2	0.101	4.163	F1	mg/Kg		4130	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*

Lab Sample ID: 890-2009-A-3-H MSD
Matrix: Solid
Analysis Batch: 20577

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0498	U F1	0.0996	0.9509	F1	mg/Kg		955	70 - 130	16	35
Toluene	<0.0498	U F1 F2	0.0996	2.505	F1 F2	mg/Kg		2515	70 - 130	43	35
Ethylbenzene	<0.0498	U F1 F2	0.0996	3.505	F1 F2	mg/Kg		3519	70 - 130	38	35
m-Xylene & p-Xylene	<0.0996	U F1 F2	0.199	15.01	F1 F2	mg/Kg		7534	70 - 130	49	35
o-Xylene	<0.0498	U F1 F2	0.0996	7.358	F1 F2	mg/Kg		7387	70 - 130	55	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: MB 880-20605/5-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20605

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/02/22 16:00	03/02/22 20:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/02/22 16:00	03/02/22 20:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*49*	*S1-*	*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/02/22 16:00*	*03/02/22 20:20*	*1*

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1224		mg/Kg		122	70 - 130
Toluene			0.100	0.1044		mg/Kg		104	70 - 130
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene			0.200	0.2201		mg/Kg		110	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-20605/1-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.1072		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-20605/2-A
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20605

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1058		mg/Kg		106	70 - 130	15	35
Toluene			0.100	0.09560		mg/Kg		96	70 - 130	9	35
Ethylbenzene			0.100	0.1004		mg/Kg		100	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2080		mg/Kg		104	70 - 130	6	35
o-Xylene			0.100	0.09996		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-11907-A-1-B MS
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.101	0.07733		mg/Kg		77	70 - 130		
Toluene	<0.00200	U F1	0.101	0.06553	F1	mg/Kg		65	70 - 130		
Ethylbenzene	<0.00200	U F1	0.101	0.06954	F1	mg/Kg		69	70 - 130		
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1418		mg/Kg		70	70 - 130		
o-Xylene	<0.00200	U	0.101	0.07034		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07748		mg/Kg		77	70 - 130	0	35
Toluene	<0.00200	U F1	0.100	0.06554	F1	mg/Kg		65	70 - 130	0	35
Ethylbenzene	<0.00200	U F1	0.100	0.07098		mg/Kg		71	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.201	0.1454		mg/Kg		72	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.07552		mg/Kg		75	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11907-A-1-C MSD
Matrix: Solid
Analysis Batch: 20710

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20605

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: CB MB
Matrix: Solid
Analysis Batch: 20710

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			03/02/22 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			03/02/22 17:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*		*03/02/22 17:14*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*03/02/22 17:14*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20253/1-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20253

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/24/22 15:51	02/24/22 21:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/24/22 15:51*	*02/24/22 21:01*	*1*

Lab Sample ID: LCS 880-20253/2-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	808.4		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1182		mg/Kg		118	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*132*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCSD 880-20253/3-A
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20253

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	876.2		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Lab Sample ID: 880-11670-A-1-D MS
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1187		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		112	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*69*	*S1-*	*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 880-11670-A-1-E MSD
Matrix: Solid
Analysis Batch: 20195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20253

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1007		mg/Kg		97	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1187		mg/Kg		119	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/25/22 08:25	02/25/22 12:36	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20293/1-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20293

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/25/22 08:25	02/25/22 12:36	1
o-Terphenyl	115		70 - 130	02/25/22 08:25	02/25/22 12:36	1

Lab Sample ID: LCS 880-20293/2-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	797.2		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	928.5		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: LCSD 880-20293/3-A
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	821.5		mg/Kg		82	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 890-2004-A-1-E MS
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1240		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1269		mg/Kg		127	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2004-A-1-F MSD
Matrix: Solid
Analysis Batch: 20308

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20293

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1205		mg/Kg		121	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1237		mg/Kg		124	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20217/1-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/27/22 12:29	1

Lab Sample ID: LCS 880-20217/2-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.6		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-20217/3-A
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	252.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-2003-5 MS
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	365		253	614.6		mg/Kg		99	90 - 110		

Lab Sample ID: 890-2003-5 MSD
Matrix: Solid
Analysis Batch: 20409

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	365		253	611.6		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	Total BTEX	
890-2003-2	BH07	Total/NA	Solid	Total BTEX	
890-2003-3	BH08	Total/NA	Solid	Total BTEX	
890-2003-4	BH08	Total/NA	Solid	Total BTEX	
890-2003-5	BH09	Total/NA	Solid	Total BTEX	
890-2003-6	BH09	Total/NA	Solid	Total BTEX	
890-2003-7	BH10	Total/NA	Solid	Total BTEX	
890-2003-8	BH10	Total/NA	Solid	Total BTEX	
890-2003-9	BH11	Total/NA	Solid	Total BTEX	
890-2003-10	BH11	Total/NA	Solid	Total BTEX	

Prep Batch: 20526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	5035	
890-2003-6	BH09	Total/NA	Solid	5035	
890-2003-7	BH10	Total/NA	Solid	5035	
890-2003-8	BH10	Total/NA	Solid	5035	
890-2003-9	BH11	Total/NA	Solid	5035	
890-2003-10	BH11	Total/NA	Solid	5035	
MB 880-20526/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-5	BH09	Total/NA	Solid	8021B	20526
890-2003-6	BH09	Total/NA	Solid	8021B	20526
890-2003-7	BH10	Total/NA	Solid	8021B	20526
890-2003-8	BH10	Total/NA	Solid	8021B	20526
890-2003-9	BH11	Total/NA	Solid	8021B	20526
890-2003-10	BH11	Total/NA	Solid	8021B	20526
MB 880-20526/5-A	Method Blank	Total/NA	Solid	8021B	20526
LCS 880-20526/1-A	Lab Control Sample	Total/NA	Solid	8021B	20526
LCSD 880-20526/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20526
890-2009-A-3-G MS	Matrix Spike	Total/NA	Solid	8021B	20526
890-2009-A-3-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20526

Prep Batch: 20605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	5035	
890-2003-2	BH07	Total/NA	Solid	5035	
890-2003-3	BH08	Total/NA	Solid	5035	
890-2003-4	BH08	Total/NA	Solid	5035	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC VOA

Analysis Batch: 20710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8021B	20605
890-2003-2	BH07	Total/NA	Solid	8021B	20605
890-2003-3	BH08	Total/NA	Solid	8021B	20605
890-2003-4	BH08	Total/NA	Solid	8021B	20605
CB MB	Method Blank	Total/NA	Solid	8021B	
MB 880-20605/5-A	Method Blank	Total/NA	Solid	8021B	20605
LCS 880-20605/1-A	Lab Control Sample	Total/NA	Solid	8021B	20605
LCSD 880-20605/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20605
880-11907-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20605
880-11907-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20605

GC Semi VOA

Analysis Batch: 20195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015B NM	20253
890-2003-2	BH07	Total/NA	Solid	8015B NM	20253
890-2003-3	BH08	Total/NA	Solid	8015B NM	20253
890-2003-4	BH08	Total/NA	Solid	8015B NM	20253
890-2003-5	BH09	Total/NA	Solid	8015B NM	20253
890-2003-6	BH09	Total/NA	Solid	8015B NM	20253
890-2003-7	BH10	Total/NA	Solid	8015B NM	20253
890-2003-8	BH10	Total/NA	Solid	8015B NM	20253
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015B NM	20253
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20253
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20253
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	20253
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20253

Prep Batch: 20253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015NM Prep	
890-2003-2	BH07	Total/NA	Solid	8015NM Prep	
890-2003-3	BH08	Total/NA	Solid	8015NM Prep	
890-2003-4	BH08	Total/NA	Solid	8015NM Prep	
890-2003-5	BH09	Total/NA	Solid	8015NM Prep	
890-2003-6	BH09	Total/NA	Solid	8015NM Prep	
890-2003-7	BH10	Total/NA	Solid	8015NM Prep	
890-2003-8	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20253/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20253/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11670-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11670-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 20293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015NM Prep	
890-2003-10	BH11	Total/NA	Solid	8015NM Prep	
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

GC Semi VOA (Continued)

Prep Batch: 20293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-9	BH11	Total/NA	Solid	8015B NM	20293
890-2003-10	BH11	Total/NA	Solid	8015B NM	20293
MB 880-20293/1-A	Method Blank	Total/NA	Solid	8015B NM	20293
LCS 880-20293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20293
LCSD 880-20293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20293
890-2004-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	20293
890-2004-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20293

Analysis Batch: 20341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Total/NA	Solid	8015 NM	
890-2003-2	BH07	Total/NA	Solid	8015 NM	
890-2003-3	BH08	Total/NA	Solid	8015 NM	
890-2003-4	BH08	Total/NA	Solid	8015 NM	
890-2003-5	BH09	Total/NA	Solid	8015 NM	
890-2003-6	BH09	Total/NA	Solid	8015 NM	
890-2003-7	BH10	Total/NA	Solid	8015 NM	
890-2003-8	BH10	Total/NA	Solid	8015 NM	
890-2003-9	BH11	Total/NA	Solid	8015 NM	
890-2003-10	BH11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	DI Leach	
890-2003-2	BH07	Soluble	Solid	DI Leach	
890-2003-3	BH08	Soluble	Solid	DI Leach	
890-2003-4	BH08	Soluble	Solid	DI Leach	
890-2003-5	BH09	Soluble	Solid	DI Leach	
890-2003-6	BH09	Soluble	Solid	DI Leach	
890-2003-7	BH10	Soluble	Solid	DI Leach	
890-2003-8	BH10	Soluble	Solid	DI Leach	
890-2003-9	BH11	Soluble	Solid	DI Leach	
890-2003-10	BH11	Soluble	Solid	DI Leach	
MB 880-20217/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2003-5 MS	BH09	Soluble	Solid	DI Leach	
890-2003-5 MSD	BH09	Soluble	Solid	DI Leach	

Analysis Batch: 20409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-1	BH07	Soluble	Solid	300.0	20217
890-2003-2	BH07	Soluble	Solid	300.0	20217

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

HPLC/IC (Continued)

Analysis Batch: 20409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2003-3	BH08	Soluble	Solid	300.0	20217
890-2003-4	BH08	Soluble	Solid	300.0	20217
890-2003-5	BH09	Soluble	Solid	300.0	20217
890-2003-6	BH09	Soluble	Solid	300.0	20217
890-2003-7	BH10	Soluble	Solid	300.0	20217
890-2003-8	BH10	Soluble	Solid	300.0	20217
890-2003-9	BH11	Soluble	Solid	300.0	20217
890-2003-10	BH11	Soluble	Solid	300.0	20217
MB 880-20217/1-A	Method Blank	Soluble	Solid	300.0	20217
LCS 880-20217/2-A	Lab Control Sample	Soluble	Solid	300.0	20217
LCSD 880-20217/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20217
890-2003-5 MS	BH09	Soluble	Solid	300.0	20217
890-2003-5 MSD	BH09	Soluble	Solid	300.0	20217

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH07
Date Collected: 02/18/22 10:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:24	CH	XEN MID

Client Sample ID: BH07
Date Collected: 02/18/22 10:55
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 02:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:00
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 14:42	CH	XEN MID

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20605	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20710	03/03/22 03:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH08
Date Collected: 02/18/22 11:10
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:51	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 14:59	CH	XEN MID

Client Sample ID: BH09
Date Collected: 02/18/22 12:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:26	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 22:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		5			20195	02/25/22 05:38	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Client Sample ID: BH10
Date Collected: 02/18/22 13:05
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:35	CH	XEN MID

Client Sample ID: BH10
Date Collected: 02/18/22 13:20
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20253	02/24/22 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20195	02/25/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		50			20409	02/27/22 16:01	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:30
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 16:10	CH	XEN MID

Client Sample ID: BH11
Date Collected: 02/18/22 13:45
Date Received: 02/23/22 11:26

Lab Sample ID: 890-2003-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20526	03/01/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20577	03/01/22 23:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20453	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20341	02/25/22 15:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20293	02/25/22 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20308	02/25/22 17:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	20217	02/24/22 12:03	CH	XEN MID
Soluble	Analysis	300.0		5			20409	02/27/22 16:19	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2003-1
SDG: 31403360.03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2003-1	BH07	Solid	02/18/22 10:45	02/23/22 11:26	0.5
890-2003-2	BH07	Solid	02/18/22 10:55	02/23/22 11:26	4
890-2003-3	BH08	Solid	02/18/22 11:00	02/23/22 11:26	0.5
890-2003-4	BH08	Solid	02/18/22 11:10	02/23/22 11:26	4
890-2003-5	BH09	Solid	02/18/22 12:30	02/23/22 11:26	0.5
890-2003-6	BH09	Solid	02/18/22 12:45	02/23/22 11:26	4
890-2003-7	BH10	Solid	02/18/22 13:05	02/23/22 11:26	0.5
890-2003-8	BH10	Solid	02/18/22 13:20	02/23/22 11:26	4
890-2003-9	BH11	Solid	02/18/22 13:30	02/23/22 11:26	0.5
890-2003-10	BH11	Solid	02/18/22 13:45	02/23/22 11:26	4

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Joseph Hernandez	Bill to: (if different)	Joseph Hernandez
Company Name:	WSP USA	Company Name:	WSP
Address:	3300 N A Street	Address:	3300 N A Street
City, State ZIP:	Midland, TX, 79705	City, State ZIP:	Midland, TX, 79705
Phone:	281-702-2329	Email:	Address: Anna.Byers@wsp.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.03	Routine	✓
P.O. Number:	Napp2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.8/1.6	Thermometer ID	TUM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-2003 Chain of Custody

Work Order Notes

CC:1137631001
API:PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH07	S	02/18/22	10:45	0.5'	1	X	X	X	Discrete
BH07	S	02/18/22	10:55	4'	1	X	X	X	Discrete
BH08	S	02/18/22	11:00	0.5'	1	X	X	X	Discrete
BH08	S	02/18/22	11:10	4'	1	X	X	X	Discrete
BH09	S	02/18/22	12:30	0.5'	1	X	X	X	Discrete
BH09	S	02/18/22	12:45	4'	1	X	X	X	Discrete
BH10	S	02/18/22	13:05	0.5'	1	X	X	X	Discrete
BH10	S	02/18/22	13:20	4'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:30	0.5'	1	X	X	X	Discrete
BH11	S	2/18/2022	13:45	4'	1	X	X	X	Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

2-23-22 1126

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-639 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/1/2022			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL; B NaOH; C - Zn Acetate; D Nitric Acid; E - NaHSO4; F MeOH; G - Amchlor; H Ascorbic Acid; I - Ice; J DI Water; K - EDTA; L EDA
M - Hexane; N - None; O - AsNaO2; P Na2O4S; Q Na2SO3; R Na2S2O3; S H2SO4; T - TSP Dodecahydrate; U Acetone; V - MCAA; W pH 4-5; Z other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
				Preservation Code:	X	X						X	
BH07 (890-2003-1)	2/18/22	10 45 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2003-2)	2/18/22	10 55 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-3)	2/18/22	11 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2003-4)	2/18/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-5)	2/18/22	12 30 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2003-6)	2/18/22	12 45 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-7)	2/18/22	13 05 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2003-8)	2/18/22	13 20 Mountain		Solid			X	X	X	X	X	1	
BH11 (890-2003-9)	2/18/22	13 30 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification
Unconfirmed
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*
Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by: Cina Gaf 2-23-22	Date/Time:	Company	Received by: [signature]	Date/Time: 2/24/22	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks.		

Ver 06/08/2021

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Eurofins Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-639 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-2003-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 3/1/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X						X	
BH11 (890-2003-10)	2/18/22	13 45 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A - HCL
B NaOH
C - Zn Acetate
D Nitric Acid
E - NaHSO4
F MeOH
G - Amchlor
H Ascorbic Acid
I - Ice
J DI Water
K - EDTA
L EDA
M Hexane
N - None
O AsNaO2
P - Na2O4S
Q Na2SO3
R Na2S2O3
S H2SO4
T TSP Dodecahydrate
U - Acetone
V MCAA
W pH 4-5
Z other (specify)
Other:

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ________ *Months*

Deliverable Requested I II III, IV, Other (specify) — Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time.	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
CueCafo 2.23.22			[signature]	2/24/22	

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2003-1
SDG Number: 31403360.03

Login Number: 2003
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/24/22 12:49 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2030-1
Laboratory Sample Delivery Group: 31403360.031
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/7/2022 9:27:48 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2030-1
SDG: 31403360.031

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Job ID: 890-2030-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2030-1

Receipt
The samples were received on 3/1/2022 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Lab Sample ID: 890-2030-1
Matrix: Solid
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 02:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1610**		25.0		mg/Kg			03/05/22 15:30	5

Client Sample ID: BH12

Lab Sample ID: 890-2030-2
Matrix: Solid
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*9*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12

Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 16:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1360**		25.0		mg/Kg			03/05/22 16:06	5

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 03:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4430**		49.7		mg/Kg			03/05/22 16:18	10

Client Sample ID: BH13

Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 17:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*8*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 17:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13

Lab Sample ID: 890-2030-4
Matrix: Solid
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7260		49.8		mg/Kg			03/05/22 16:30	10

Client Sample ID: BH14

Lab Sample ID: 890-2030-5
Matrix: Solid
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 18:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/06/22 11:15	03/06/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.00		mg/Kg			03/05/22 16:41	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH14

Lab Sample ID: 890-2030-6
Matrix: Solid
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 18:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/06/22 11:15	03/06/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*03/06/22 11:15*	*03/06/22 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/02/22 08:11*	*03/03/22 04:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**115**		4.99		mg/Kg			03/05/22 16:53	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/06/22 11:15	03/06/22 19:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/06/22 11:15	03/06/22 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*170*	*S1+*	*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Lab Sample ID: 890-2030-7
Matrix: Solid
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/06/22 11:15*	*03/06/22 19:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.5**		5.00		mg/Kg			03/05/22 17:05	1

Client Sample ID: BH15

Lab Sample ID: 890-2030-8
Matrix: Solid
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 20:48	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/06/22 11:15*	*03/06/22 20:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15

Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-8

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*
o-Terphenyl	*111*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.4**		4.98		mg/Kg			03/05/22 17:41	1

Client Sample ID: BH16

Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Lab Sample ID: 890-2030-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 21:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*
o-Terphenyl	*92*		*70 - 130*	*03/02/22 08:11*	*03/03/22 05:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH16

Lab Sample ID: 890-2030-9
Matrix: Solid
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		24.8		mg/Kg			03/05/22 17:53	5

Client Sample ID: BH16

Lab Sample ID: 890-2030-10
Matrix: Solid
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 21:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/02/22 08:11*	*03/03/22 06:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		50.1		mg/Kg			03/05/22 18:28	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Lab Sample ID: 890-2030-11
Matrix: Solid
Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1090**		24.9		mg/Kg			03/05/22 18:40	5

Client Sample ID: BH17

Lab Sample ID: 890-2030-12
Matrix: Solid
Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 22:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50
Sample Depth: 4

Lab Sample ID: 890-2030-12

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 22:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/02/22 08:11*	*03/03/22 07:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8280**		100		mg/Kg			03/05/22 18:52	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11719-A-1-J MS	Matrix Spike	89	123
880-11719-A-1-K MSD	Matrix Spike Duplicate	94	124
890-2030-1	BH12	101	114
890-2030-2	BH12	9 S1-	101
890-2030-3	BH13	102	118
890-2030-4	BH13	8 S1-	108
890-2030-5	BH14	87	116
890-2030-6	BH14	106	119
890-2030-7	BH15	170 S1+	85
890-2030-8	BH15	94	110
890-2030-9	BH16	83	105
890-2030-10	BH16	89	108
890-2030-11	BH17	99	106
890-2030-12	BH17	101	108
LCS 880-20687/1-A	Lab Control Sample	82	116
LCSD 880-20687/2-A	Lab Control Sample Dup	84	111
MB 880-20687/5-A	Method Blank	51 S1-	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2030-1	BH12	100	104
890-2030-1 MS	BH12	94	100
890-2030-1 MSD	BH12	99	95
890-2030-2	BH12	99	103
890-2030-3	BH13	108	112
890-2030-4	BH13	95	97
890-2030-5	BH14	104	106
890-2030-6	BH14	118	120
890-2030-7	BH15	97	99
890-2030-8	BH15	108	111
890-2030-9	BH16	93	92
890-2030-10	BH16	105	106
890-2030-11	BH17	96	97
890-2030-12	BH17	99	103
LCS 880-20658/2-A	Lab Control Sample	107	106
LCSD 880-20658/3-A	Lab Control Sample Dup	106	105
MB 880-20658/1-A	Method Blank	112	117

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20687/5-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/06/22 11:15	03/06/22 14:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/06/22 11:15	03/06/22 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/06/22 11:15*	*03/06/22 14:35*	*1*

Lab Sample ID: LCS 880-20687/1-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08533		mg/Kg		85	70 - 130		
Toluene			0.100	0.08536		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.09079		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1854		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09200		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-20687/2-A
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20687

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09073		mg/Kg		91	70 - 130	6	35
Toluene			0.100	0.08702		mg/Kg		87	70 - 130	2	35
Ethylbenzene			0.100	0.09419		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1931		mg/Kg		97	70 - 130	4	35
o-Xylene			0.100	0.09334		mg/Kg		93	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130		
Toluene	<0.00199	U	0.0998	0.09757		mg/Kg		98	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11719-A-1-J MS
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2115		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1057		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*

Lab Sample ID: 880-11719-A-1-K MSD
Matrix: Solid
Analysis Batch: 20977

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 20687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1073		mg/Kg		106	70 - 130	4	35
Toluene	<0.00199	U	0.101	0.1009		mg/Kg		100	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.101	0.1083		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2216		mg/Kg		110	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.1086		mg/Kg		107	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20658/1-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 01:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*
o-Terphenyl	*117*		*70 - 130*	*03/02/22 08:11*	*03/03/22 01:28*	*1*

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	930.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	852.2		mg/Kg		85	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-20658/2-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20658

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20658/3-A
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	971.8		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	874.2		mg/Kg		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-2030-1 MS
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1077		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	943.7		mg/Kg		94	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2030-1 MSD
Matrix: Solid
Analysis Batch: 20655

Client Sample ID: BH12
Prep Type: Total/NA
Prep Batch: 20658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1086		mg/Kg		106	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	910.9		mg/Kg		91	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	95		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20681/1-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/05/22 13:14	1

Lab Sample ID: LCS 880-20681/2-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	254.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-20681/3-A
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	257.4		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-2030-7 MS
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	77.5		250	316.5		mg/Kg		96	90 - 110		

Lab Sample ID: 890-2030-7 MSD
Matrix: Solid
Analysis Batch: 20963

Client Sample ID: BH15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	77.5		250	321.4		mg/Kg		98	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA

Prep Batch: 20687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	5035	
890-2030-2	BH12	Total/NA	Solid	5035	
890-2030-3	BH13	Total/NA	Solid	5035	
890-2030-4	BH13	Total/NA	Solid	5035	
890-2030-5	BH14	Total/NA	Solid	5035	
890-2030-6	BH14	Total/NA	Solid	5035	
890-2030-7	BH15	Total/NA	Solid	5035	
890-2030-8	BH15	Total/NA	Solid	5035	
890-2030-9	BH16	Total/NA	Solid	5035	
890-2030-10	BH16	Total/NA	Solid	5035	
890-2030-11	BH17	Total/NA	Solid	5035	
890-2030-12	BH17	Total/NA	Solid	5035	
MB 880-20687/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8021B	20687
890-2030-2	BH12	Total/NA	Solid	8021B	20687
890-2030-3	BH13	Total/NA	Solid	8021B	20687
890-2030-4	BH13	Total/NA	Solid	8021B	20687
890-2030-5	BH14	Total/NA	Solid	8021B	20687
890-2030-6	BH14	Total/NA	Solid	8021B	20687
890-2030-7	BH15	Total/NA	Solid	8021B	20687
890-2030-8	BH15	Total/NA	Solid	8021B	20687
890-2030-9	BH16	Total/NA	Solid	8021B	20687
890-2030-10	BH16	Total/NA	Solid	8021B	20687
890-2030-11	BH17	Total/NA	Solid	8021B	20687
890-2030-12	BH17	Total/NA	Solid	8021B	20687
MB 880-20687/5-A	Method Blank	Total/NA	Solid	8021B	20687
LCS 880-20687/1-A	Lab Control Sample	Total/NA	Solid	8021B	20687
LCSD 880-20687/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20687
880-11719-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	20687
880-11719-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20687

Analysis Batch: 21059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	Total BTEX	
890-2030-2	BH12	Total/NA	Solid	Total BTEX	
890-2030-3	BH13	Total/NA	Solid	Total BTEX	
890-2030-4	BH13	Total/NA	Solid	Total BTEX	
890-2030-5	BH14	Total/NA	Solid	Total BTEX	
890-2030-6	BH14	Total/NA	Solid	Total BTEX	
890-2030-7	BH15	Total/NA	Solid	Total BTEX	
890-2030-8	BH15	Total/NA	Solid	Total BTEX	
890-2030-9	BH16	Total/NA	Solid	Total BTEX	
890-2030-10	BH16	Total/NA	Solid	Total BTEX	
890-2030-11	BH17	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC VOA (Continued)

Analysis Batch: 21059 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-12	BH17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 20655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015B NM	20658
890-2030-2	BH12	Total/NA	Solid	8015B NM	20658
890-2030-3	BH13	Total/NA	Solid	8015B NM	20658
890-2030-4	BH13	Total/NA	Solid	8015B NM	20658
890-2030-5	BH14	Total/NA	Solid	8015B NM	20658
890-2030-6	BH14	Total/NA	Solid	8015B NM	20658
890-2030-7	BH15	Total/NA	Solid	8015B NM	20658
890-2030-8	BH15	Total/NA	Solid	8015B NM	20658
890-2030-9	BH16	Total/NA	Solid	8015B NM	20658
890-2030-10	BH16	Total/NA	Solid	8015B NM	20658
890-2030-11	BH17	Total/NA	Solid	8015B NM	20658
890-2030-12	BH17	Total/NA	Solid	8015B NM	20658
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015B NM	20658
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20658
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20658
890-2030-1 MS	BH12	Total/NA	Solid	8015B NM	20658
890-2030-1 MSD	BH12	Total/NA	Solid	8015B NM	20658

Prep Batch: 20658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015NM Prep	
890-2030-2	BH12	Total/NA	Solid	8015NM Prep	
890-2030-3	BH13	Total/NA	Solid	8015NM Prep	
890-2030-4	BH13	Total/NA	Solid	8015NM Prep	
890-2030-5	BH14	Total/NA	Solid	8015NM Prep	
890-2030-6	BH14	Total/NA	Solid	8015NM Prep	
890-2030-7	BH15	Total/NA	Solid	8015NM Prep	
890-2030-8	BH15	Total/NA	Solid	8015NM Prep	
890-2030-9	BH16	Total/NA	Solid	8015NM Prep	
890-2030-10	BH16	Total/NA	Solid	8015NM Prep	
890-2030-11	BH17	Total/NA	Solid	8015NM Prep	
890-2030-12	BH17	Total/NA	Solid	8015NM Prep	
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2030-1 MS	BH12	Total/NA	Solid	8015NM Prep	
890-2030-1 MSD	BH12	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Total/NA	Solid	8015 NM	
890-2030-2	BH12	Total/NA	Solid	8015 NM	
890-2030-3	BH13	Total/NA	Solid	8015 NM	
890-2030-4	BH13	Total/NA	Solid	8015 NM	
890-2030-5	BH14	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

GC Semi VOA (Continued)

Analysis Batch: 20812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-6	BH14	Total/NA	Solid	8015 NM	
890-2030-7	BH15	Total/NA	Solid	8015 NM	
890-2030-8	BH15	Total/NA	Solid	8015 NM	
890-2030-9	BH16	Total/NA	Solid	8015 NM	
890-2030-10	BH16	Total/NA	Solid	8015 NM	
890-2030-11	BH17	Total/NA	Solid	8015 NM	
890-2030-12	BH17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 20681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	DI Leach	
890-2030-2	BH12	Soluble	Solid	DI Leach	
890-2030-3	BH13	Soluble	Solid	DI Leach	
890-2030-4	BH13	Soluble	Solid	DI Leach	
890-2030-5	BH14	Soluble	Solid	DI Leach	
890-2030-6	BH14	Soluble	Solid	DI Leach	
890-2030-7	BH15	Soluble	Solid	DI Leach	
890-2030-8	BH15	Soluble	Solid	DI Leach	
890-2030-9	BH16	Soluble	Solid	DI Leach	
890-2030-10	BH16	Soluble	Solid	DI Leach	
890-2030-11	BH17	Soluble	Solid	DI Leach	
890-2030-12	BH17	Soluble	Solid	DI Leach	
MB 880-20681/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2030-7 MS	BH15	Soluble	Solid	DI Leach	
890-2030-7 MSD	BH15	Soluble	Solid	DI Leach	

Analysis Batch: 20963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2030-1	BH12	Soluble	Solid	300.0	20681
890-2030-2	BH12	Soluble	Solid	300.0	20681
890-2030-3	BH13	Soluble	Solid	300.0	20681
890-2030-4	BH13	Soluble	Solid	300.0	20681
890-2030-5	BH14	Soluble	Solid	300.0	20681
890-2030-6	BH14	Soluble	Solid	300.0	20681
890-2030-7	BH15	Soluble	Solid	300.0	20681
890-2030-8	BH15	Soluble	Solid	300.0	20681
890-2030-9	BH16	Soluble	Solid	300.0	20681
890-2030-10	BH16	Soluble	Solid	300.0	20681
890-2030-11	BH17	Soluble	Solid	300.0	20681
890-2030-12	BH17	Soluble	Solid	300.0	20681
MB 880-20681/1-A	Method Blank	Soluble	Solid	300.0	20681
LCS 880-20681/2-A	Lab Control Sample	Soluble	Solid	300.0	20681
LCSD 880-20681/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20681
890-2030-7 MS	BH15	Soluble	Solid	300.0	20681
890-2030-7 MSD	BH15	Soluble	Solid	300.0	20681

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH12
Date Collected: 02/28/22 10:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 15:30	SC	XEN MID

Client Sample ID: BH12
Date Collected: 02/28/22 10:33
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 16:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:34	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 16:06	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 03:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:18	SC	XEN MID

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 17:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH13
Date Collected: 02/28/22 11:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 16:30	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:30
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:36	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:41	SC	XEN MID

Client Sample ID: BH14
Date Collected: 02/28/22 11:35
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 04:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 16:53	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 19:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:18	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH15
Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:05	SC	XEN MID

Client Sample ID: BH15
Date Collected: 02/28/22 11:50
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 20:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		1			20963	03/05/22 17:41	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 05:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 17:53	SC	XEN MID

Client Sample ID: BH16
Date Collected: 02/28/22 13:25
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 21:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 06:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		10			20963	03/05/22 18:28	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:15
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		5			20963	03/05/22 18:40	SC	XEN MID

Client Sample ID: BH17

Date Collected: 02/28/22 14:20
Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20687	03/06/22 11:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20977	03/06/22 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21059	03/07/22 21:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20812	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			20655	03/03/22 07:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	20681	03/02/22 10:50	CH	XEN MID
Soluble	Analysis	300.0		20			20963	03/05/22 18:52	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2030-1
SDG: 31403360.031

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2030-1	BH12	Solid	02/28/22 10:30	03/01/22 08:50	2
890-2030-2	BH12	Solid	02/28/22 10:33	03/01/22 08:50	4
890-2030-3	BH13	Solid	02/28/22 11:20	03/01/22 08:50	2
890-2030-4	BH13	Solid	02/28/22 11:25	03/01/22 08:50	4
890-2030-5	BH14	Solid	02/28/22 11:30	03/01/22 08:50	0.5
890-2030-6	BH14	Solid	02/28/22 11:35	03/01/22 08:50	4
890-2030-7	BH15	Solid	02/28/22 11:40	03/01/22 08:50	0.5
890-2030-8	BH15	Solid	02/28/22 11:50	03/01/22 08:50	4
890-2030-9	BH16	Solid	02/28/22 13:20	03/01/22 08:50	2
890-2030-10	BH16	Solid	02/28/22 13:25	03/01/22 08:50	4
890-2030-11	BH17	Solid	02/28/22 14:15	03/01/22 08:50	2
890-2030-12	BH17	Solid	02/28/22 14:20	03/01/22 08:50	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine ☑	
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.2/1.0	Thermometer ID		
Received Intact:	Yes No	TNM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

890-2030 Chain of Custody

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH12	S	2.28.22	10:30	2	1	X	X	X
BH12	S	2.28.22	10:33	4	1	X	X	X
BH13	S	2.28.22	11:20	2	1	X	X	X
BH13	S	2.28.22	11:25	4	1	X	X	X
BH14	S	2.28.22	11:30	0.5	1	X	X	X
BH14	S	2.28.22	11:35	4	1	X	X	X
BH15	S	2.28.22	11:40	0.5	1	X	X	X
BH15	S	2.28.22	11:50	4	1	X	X	X
BH16	S	2.28.22	13:20	2	1	X	X	X
BH16	S	2.28.22	13:25	4	1	X	X	X

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3.1.22 0852	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329 Email		Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.031	Routine	☑
Incident ID:	nAPP2200728755	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):		Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH17	S	2.28.22	14:15	2	1	X	X	X
BH17	S	2.28.22	14:20	4	1	X	X	X

Work Order Notes

CC 1137631001
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

3.1.22

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3.1.22 0850	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

3/7/2022

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2030-1
SDG Number: 31403360.031

Login Number: 2030
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/02/22 11:22 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2040-1
Laboratory SDG: 31403360.036.31403360.035
Client Project/Site: RDU 11

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Joseph Hernandez

JKramer

Authorized for release by:
3/14/2022 1:37:54 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: WSP USA Inc.
Project/Site: RDU 11

Laboratory Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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

Case Narrative

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Job ID: 890-2040-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2040-1

Receipt
The samples were received on 3/3/2022 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-20924 and analytical batch 880-21381 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH04 (890-2040-7), BH08 (890-2040-16), BH09 (890-2040-17), BH10 (890-2040-19) and BH10 (890-2040-20). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-21026 and analytical batch 880-21137 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-1
Matrix: Solid
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/04/22 15:08*	*03/11/22 22:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8700**		99.8		mg/Kg			03/09/22 01:31	20

Client Sample ID: BH01

Lab Sample ID: 890-2040-2
Matrix: Solid
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 23:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Lab Sample ID: 890-2040-2
Matrix: Solid
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*118*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9220**		99.2		mg/Kg			03/09/22 12:55	20

Client Sample ID: BH02

Lab Sample ID: 890-2040-3
Matrix: Solid
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/07/22 12:57*	*03/09/22 23:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/11/22 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*
o-Terphenyl	*79*		*70 - 130*	*03/04/22 15:08*	*03/11/22 23:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4300**		49.8		mg/Kg			03/09/22 09:22	10

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 00:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*
o-Terphenyl	*86*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:01*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02

Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8350		100		mg/Kg			03/09/22 09:31	20

Client Sample ID: BH03

Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10
Sample Depth: 2

Lab Sample ID: 890-2040-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3310		49.7		mg/Kg			03/09/22 09:40	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH03

Lab Sample ID: 890-2040-6
Matrix: Solid
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 00:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 00:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*
o-Terphenyl	*83*		*70 - 130*	*03/04/22 15:08*	*03/12/22 00:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12600**		99.0		mg/Kg			03/09/22 10:06	20

Client Sample ID: BH04

Lab Sample ID: 890-2040-7
Matrix: Solid
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 01:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 01:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.3**	**F1**	4.96		mg/Kg			03/09/22 16:05	1

Client Sample ID: BH04

Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/07/22 12:57*	*03/10/22 01:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04

Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-8

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*
o-Terphenyl	*81*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.1**		5.00		mg/Kg			03/09/22 16:23	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 01:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*302*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*
1,4-Difluorobenzene (Surr)	*273*	*S1+*	*70 - 130*	*03/07/22 12:57*	*03/10/22 01:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*
o-Terphenyl	*72*		*70 - 130*	*03/04/22 15:08*	*03/12/22 01:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH05

Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-9

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.80		4.98		mg/Kg			03/09/22 16:29	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 02:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*
o-Terphenyl	*73*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		5.00		mg/Kg			03/09/22 16:52	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 03:29	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/07/22 12:57	03/10/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*
o-Terphenyl	*77*		*70 - 130*	*03/04/22 15:08*	*03/12/22 02:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			03/09/22 16:58	1

Client Sample ID: BH06

Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 03:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06

Lab Sample ID: 890-2040-12
Matrix: Solid
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 03:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*75*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*
o-Terphenyl	*78*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.4**		5.04		mg/Kg			03/09/22 17:16	1

Client Sample ID: BH07

Lab Sample ID: 890-2040-13
Matrix: Solid
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-13

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.01**		4.98		mg/Kg			03/09/22 17:21	1

Client Sample ID: BH07

Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/07/22 12:57	03/10/22 04:31	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/07/22 12:57	03/10/22 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/04/22 15:08*	*03/12/22 03:57*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07

Lab Sample ID: 890-2040-14
Matrix: Solid
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		5.01		mg/Kg			03/09/22 17:27	1

Client Sample ID: BH08

Lab Sample ID: 890-2040-15
Matrix: Solid
Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 04:51	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/07/22 12:57	03/10/22 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 04:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/04/22 15:08*	*03/12/22 04:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.90		4.99		mg/Kg			03/09/22 17:33	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH08

Lab Sample ID: 890-2040-16
Matrix: Solid
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/07/22 12:57	03/10/22 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/07/22 12:57	03/10/22 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.4*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*
o-Terphenyl	*2*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 04:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.1**		4.95		mg/Kg			03/09/22 17:39	1

Client Sample ID: BH09

Lab Sample ID: 890-2040-17
Matrix: Solid
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 05:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/07/22 12:57	03/10/22 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/04/22 15:08	03/12/22 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*
o-Terphenyl	*58*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		5.00		mg/Kg			03/09/22 17:45	1

Client Sample ID: BH09

Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-18

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 05:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 05:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 12:12	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09

Lab Sample ID: 890-2040-18
Matrix: Solid
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Diesel Range Organics (Over C10-C28)	<49.8	U *-	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/04/22 15:08	03/12/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*
o-Terphenyl	*90*		*70 - 130*	*03/04/22 15:08*	*03/12/22 05:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		5.05		mg/Kg			03/09/22 18:03	1

Client Sample ID: BH10

Lab Sample ID: 890-2040-19
Matrix: Solid
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 06:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/10/22 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*
o-Terphenyl	*62*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 05:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH10

Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10
Sample Depth: 0.5

Lab Sample ID: 890-2040-19

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.95**		4.97		mg/Kg			03/09/22 18:09	1

Client Sample ID: BH10

Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10
Sample Depth: 4

Lab Sample ID: 890-2040-20

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/07/22 12:57*	*03/10/22 06:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/10/22 16:12	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.6**		50.0		mg/Kg			03/14/22 12:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Diesel Range Organics (Over C10-C28)	**70.6**	***-**	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*0.03*	*S1-*	*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/04/22 15:08*	*03/12/22 06:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.6**		4.98		mg/Kg			03/09/22 18:26	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	103	98										
890-2040-1 MS	BH01	100	99										
890-2040-1 MSD	BH01	101	99										
890-2040-2	BH01	105	97										
890-2040-3	BH02	101	96										
890-2040-4	BH02	109	101										
890-2040-5	BH03	108	99										
890-2040-6	BH03	108	98										
890-2040-7	BH04	107	99										
890-2040-8	BH04	110	101										
890-2040-9	BH05	302 S1+	273 S1+										
890-2040-10	BH05	108	98										
890-2040-11	BH06	109	100										
890-2040-12	BH06	108	98										
890-2040-13	BH07	105	97										
890-2040-14	BH07	109	98										
890-2040-15	BH08	108	98										
890-2040-16	BH08	106	98										
890-2040-17	BH09	110	102										
890-2040-18	BH09	112	98										
890-2040-19	BH10	103	98										
890-2040-20	BH10	104	98										
LCS 880-20908/1-A	Lab Control Sample	99	100										
LCSD 880-20908/2-A	Lab Control Sample Dup	99	100										
MB 880-20906/5-A	Method Blank	99	93										
MB 880-20908/5-A	Method Blank	95	93										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2040-1	BH01	98	105										
890-2040-1 MS	BH01	108	107										
890-2040-1 MSD	BH01	112	107										
890-2040-2	BH01	118	123										
890-2040-3	BH02	74	79										
890-2040-4	BH02	82	86										
890-2040-5	BH03	72	78										
890-2040-6	BH03	77	83										
890-2040-7	BH04	65 S1-	65 S1-										
890-2040-8	BH04	80	81										
890-2040-9	BH05	78	72										
890-2040-10	BH05	70	73										
890-2040-11	BH06	79	77										

Surrogate Summary

Client: WSP USA Inc.
Job ID: 890-2040-1
Project/Site: RDU 11
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-2040-12	BH06	75	78								
890-2040-13	BH07	87	91								
890-2040-14	BH07	98	101								
890-2040-15	BH08	85	88								
890-2040-16	BH08	0.4 S1-	2 S1-								
890-2040-17	BH09	61 S1-	58 S1-								
890-2040-18	BH09	87	90								
890-2040-19	BH10	61 S1-	62 S1-								
890-2040-20	BH10	0.03 S1-	91								
LCS 880-20924/2-A	Lab Control Sample	101	103								
LCSD 880-20924/3-A	Lab Control Sample Dup	113	115								
MB 880-20924/1-A	Method Blank	101	109								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20906/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/09/22 08:00	03/09/22 10:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/09/22 08:00	03/09/22 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/09/22 08:00*	*03/09/22 10:58*	*1*

Lab Sample ID: MB 880-20908/5-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/09/22 22:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/09/22 22:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/07/22 12:57*	*03/09/22 22:41*	*1*

Lab Sample ID: LCS 880-20908/1-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1006		mg/Kg		101	70 - 130
Toluene	0.100	0.09711		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.09592		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1986		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09573		mg/Kg		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	2	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-20908/2-A
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20908

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09990		mg/Kg		100	70 - 130	3	35
Ethylbenzene			0.100	0.09791		mg/Kg		98	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2036		mg/Kg		102	70 - 130	2	35
o-Xylene			0.100	0.09864		mg/Kg		99	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.1074		mg/Kg		108	70 - 130
Toluene	<0.00199	U	0.0990	0.1038		mg/Kg		105	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1022		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2108		mg/Kg		106	70 - 130
o-Xylene	<0.00199	U	0.0990	0.1024		mg/Kg		103	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21187

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00199	U	0.0994	0.09897		mg/Kg		100	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0994	0.09699		mg/Kg		98	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2012		mg/Kg		101	70 - 130	5	35
o-Xylene	<0.00199	U	0.0994	0.09863		mg/Kg		99	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20924/1-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 21:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/04/22 15:08*	*03/11/22 21:09*	*1*

Lab Sample ID: LCS 880-20924/2-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	962.5		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	686.5	*-	mg/Kg		69	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-20924/3-A
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1041		mg/Kg		104	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	768.2		mg/Kg		77	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1019		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	1000	801.0		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21381

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 20924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1099		mg/Kg		107	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U *-	998	821.3		mg/Kg		80	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21026/1-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 15:48	1

Lab Sample ID: LCS 880-21026/2-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.2		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-21026/3-A
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	243.8		mg/Kg		98	90 - 110	5	20

Lab Sample ID: 890-2040-7 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	45.3	F1	248	261.4	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-2040-7 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	45.3	F1	248	262.7	F1	mg/Kg		88	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2040-17 MS
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.4		250	281.4		mg/Kg		108	90 - 110

Lab Sample ID: 890-2040-17 MSD
Matrix: Solid
Analysis Batch: 21137

Client Sample ID: BH09
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.4		250	273.4		mg/Kg		105	90 - 110	3	20

Lab Sample ID: MB 880-21025/1-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/09/22 01:05	1

Lab Sample ID: LCS 880-21025/2-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-21025/3-A
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.3		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-2040-1 MS
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8700		4990	13740		mg/Kg		101	90 - 110

Lab Sample ID: 890-2040-1 MSD
Matrix: Solid
Analysis Batch: 21139

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8700		4990	13490		mg/Kg		96	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA

Prep Batch: 20906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20906/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 20908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	5035	
890-2040-2	BH01	Total/NA	Solid	5035	
890-2040-3	BH02	Total/NA	Solid	5035	
890-2040-4	BH02	Total/NA	Solid	5035	
890-2040-5	BH03	Total/NA	Solid	5035	
890-2040-6	BH03	Total/NA	Solid	5035	
890-2040-7	BH04	Total/NA	Solid	5035	
890-2040-8	BH04	Total/NA	Solid	5035	
890-2040-9	BH05	Total/NA	Solid	5035	
890-2040-10	BH05	Total/NA	Solid	5035	
890-2040-11	BH06	Total/NA	Solid	5035	
890-2040-12	BH06	Total/NA	Solid	5035	
890-2040-13	BH07	Total/NA	Solid	5035	
890-2040-14	BH07	Total/NA	Solid	5035	
890-2040-15	BH08	Total/NA	Solid	5035	
890-2040-16	BH08	Total/NA	Solid	5035	
890-2040-17	BH09	Total/NA	Solid	5035	
890-2040-18	BH09	Total/NA	Solid	5035	
890-2040-19	BH10	Total/NA	Solid	5035	
890-2040-20	BH10	Total/NA	Solid	5035	
MB 880-20908/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2040-1 MS	BH01	Total/NA	Solid	5035	
890-2040-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 21187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8021B	20908
890-2040-2	BH01	Total/NA	Solid	8021B	20908
890-2040-3	BH02	Total/NA	Solid	8021B	20908
890-2040-4	BH02	Total/NA	Solid	8021B	20908
890-2040-5	BH03	Total/NA	Solid	8021B	20908
890-2040-6	BH03	Total/NA	Solid	8021B	20908
890-2040-7	BH04	Total/NA	Solid	8021B	20908
890-2040-8	BH04	Total/NA	Solid	8021B	20908
890-2040-9	BH05	Total/NA	Solid	8021B	20908
890-2040-10	BH05	Total/NA	Solid	8021B	20908
890-2040-11	BH06	Total/NA	Solid	8021B	20908
890-2040-12	BH06	Total/NA	Solid	8021B	20908
890-2040-13	BH07	Total/NA	Solid	8021B	20908
890-2040-14	BH07	Total/NA	Solid	8021B	20908
890-2040-15	BH08	Total/NA	Solid	8021B	20908
890-2040-16	BH08	Total/NA	Solid	8021B	20908
890-2040-17	BH09	Total/NA	Solid	8021B	20908
890-2040-18	BH09	Total/NA	Solid	8021B	20908
890-2040-19	BH10	Total/NA	Solid	8021B	20908

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC VOA (Continued)

Analysis Batch: 21187 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-20	BH10	Total/NA	Solid	8021B	20908
MB 880-20906/5-A	Method Blank	Total/NA	Solid	8021B	20906
MB 880-20908/5-A	Method Blank	Total/NA	Solid	8021B	20908
LCS 880-20908/1-A	Lab Control Sample	Total/NA	Solid	8021B	20908
LCSD 880-20908/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20908
890-2040-1 MS	BH01	Total/NA	Solid	8021B	20908
890-2040-1 MSD	BH01	Total/NA	Solid	8021B	20908

Analysis Batch: 21336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	Total BTEX	
890-2040-2	BH01	Total/NA	Solid	Total BTEX	
890-2040-3	BH02	Total/NA	Solid	Total BTEX	
890-2040-4	BH02	Total/NA	Solid	Total BTEX	
890-2040-5	BH03	Total/NA	Solid	Total BTEX	
890-2040-6	BH03	Total/NA	Solid	Total BTEX	
890-2040-7	BH04	Total/NA	Solid	Total BTEX	
890-2040-8	BH04	Total/NA	Solid	Total BTEX	
890-2040-9	BH05	Total/NA	Solid	Total BTEX	
890-2040-10	BH05	Total/NA	Solid	Total BTEX	
890-2040-11	BH06	Total/NA	Solid	Total BTEX	
890-2040-12	BH06	Total/NA	Solid	Total BTEX	
890-2040-13	BH07	Total/NA	Solid	Total BTEX	
890-2040-14	BH07	Total/NA	Solid	Total BTEX	
890-2040-15	BH08	Total/NA	Solid	Total BTEX	
890-2040-16	BH08	Total/NA	Solid	Total BTEX	
890-2040-17	BH09	Total/NA	Solid	Total BTEX	
890-2040-18	BH09	Total/NA	Solid	Total BTEX	
890-2040-19	BH10	Total/NA	Solid	Total BTEX	
890-2040-20	BH10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015NM Prep	
890-2040-2	BH01	Total/NA	Solid	8015NM Prep	
890-2040-3	BH02	Total/NA	Solid	8015NM Prep	
890-2040-4	BH02	Total/NA	Solid	8015NM Prep	
890-2040-5	BH03	Total/NA	Solid	8015NM Prep	
890-2040-6	BH03	Total/NA	Solid	8015NM Prep	
890-2040-7	BH04	Total/NA	Solid	8015NM Prep	
890-2040-8	BH04	Total/NA	Solid	8015NM Prep	
890-2040-9	BH05	Total/NA	Solid	8015NM Prep	
890-2040-10	BH05	Total/NA	Solid	8015NM Prep	
890-2040-11	BH06	Total/NA	Solid	8015NM Prep	
890-2040-12	BH06	Total/NA	Solid	8015NM Prep	
890-2040-13	BH07	Total/NA	Solid	8015NM Prep	
890-2040-14	BH07	Total/NA	Solid	8015NM Prep	
890-2040-15	BH08	Total/NA	Solid	8015NM Prep	
890-2040-16	BH08	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Prep Batch: 20924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-17	BH09	Total/NA	Solid	8015NM Prep	
890-2040-18	BH09	Total/NA	Solid	8015NM Prep	
890-2040-19	BH10	Total/NA	Solid	8015NM Prep	
890-2040-20	BH10	Total/NA	Solid	8015NM Prep	
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2040-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2040-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015B NM	20924
890-2040-2	BH01	Total/NA	Solid	8015B NM	20924
890-2040-3	BH02	Total/NA	Solid	8015B NM	20924
890-2040-4	BH02	Total/NA	Solid	8015B NM	20924
890-2040-5	BH03	Total/NA	Solid	8015B NM	20924
890-2040-6	BH03	Total/NA	Solid	8015B NM	20924
890-2040-7	BH04	Total/NA	Solid	8015B NM	20924
890-2040-8	BH04	Total/NA	Solid	8015B NM	20924
890-2040-9	BH05	Total/NA	Solid	8015B NM	20924
890-2040-10	BH05	Total/NA	Solid	8015B NM	20924
890-2040-11	BH06	Total/NA	Solid	8015B NM	20924
890-2040-12	BH06	Total/NA	Solid	8015B NM	20924
890-2040-13	BH07	Total/NA	Solid	8015B NM	20924
890-2040-14	BH07	Total/NA	Solid	8015B NM	20924
890-2040-15	BH08	Total/NA	Solid	8015B NM	20924
890-2040-16	BH08	Total/NA	Solid	8015B NM	20924
890-2040-17	BH09	Total/NA	Solid	8015B NM	20924
890-2040-18	BH09	Total/NA	Solid	8015B NM	20924
890-2040-19	BH10	Total/NA	Solid	8015B NM	20924
890-2040-20	BH10	Total/NA	Solid	8015B NM	20924
MB 880-20924/1-A	Method Blank	Total/NA	Solid	8015B NM	20924
LCS 880-20924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20924
LCSD 880-20924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20924
890-2040-1 MS	BH01	Total/NA	Solid	8015B NM	20924
890-2040-1 MSD	BH01	Total/NA	Solid	8015B NM	20924

Analysis Batch: 21529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Total/NA	Solid	8015 NM	
890-2040-2	BH01	Total/NA	Solid	8015 NM	
890-2040-3	BH02	Total/NA	Solid	8015 NM	
890-2040-4	BH02	Total/NA	Solid	8015 NM	
890-2040-5	BH03	Total/NA	Solid	8015 NM	
890-2040-6	BH03	Total/NA	Solid	8015 NM	
890-2040-7	BH04	Total/NA	Solid	8015 NM	
890-2040-8	BH04	Total/NA	Solid	8015 NM	
890-2040-9	BH05	Total/NA	Solid	8015 NM	
890-2040-10	BH05	Total/NA	Solid	8015 NM	
890-2040-11	BH06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

GC Semi VOA (Continued)

Analysis Batch: 21529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-12	BH06	Total/NA	Solid	8015 NM	
890-2040-13	BH07	Total/NA	Solid	8015 NM	
890-2040-14	BH07	Total/NA	Solid	8015 NM	
890-2040-15	BH08	Total/NA	Solid	8015 NM	
890-2040-16	BH08	Total/NA	Solid	8015 NM	
890-2040-17	BH09	Total/NA	Solid	8015 NM	
890-2040-18	BH09	Total/NA	Solid	8015 NM	
890-2040-19	BH10	Total/NA	Solid	8015 NM	
890-2040-20	BH10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	DI Leach	
890-2040-2	BH01	Soluble	Solid	DI Leach	
890-2040-3	BH02	Soluble	Solid	DI Leach	
890-2040-4	BH02	Soluble	Solid	DI Leach	
890-2040-5	BH03	Soluble	Solid	DI Leach	
890-2040-6	BH03	Soluble	Solid	DI Leach	
MB 880-21025/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-1 MS	BH01	Soluble	Solid	DI Leach	
890-2040-1 MSD	BH01	Soluble	Solid	DI Leach	

Leach Batch: 21026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	DI Leach	
890-2040-8	BH04	Soluble	Solid	DI Leach	
890-2040-9	BH05	Soluble	Solid	DI Leach	
890-2040-10	BH05	Soluble	Solid	DI Leach	
890-2040-11	BH06	Soluble	Solid	DI Leach	
890-2040-12	BH06	Soluble	Solid	DI Leach	
890-2040-13	BH07	Soluble	Solid	DI Leach	
890-2040-14	BH07	Soluble	Solid	DI Leach	
890-2040-15	BH08	Soluble	Solid	DI Leach	
890-2040-16	BH08	Soluble	Solid	DI Leach	
890-2040-17	BH09	Soluble	Solid	DI Leach	
890-2040-18	BH09	Soluble	Solid	DI Leach	
890-2040-19	BH10	Soluble	Solid	DI Leach	
890-2040-20	BH10	Soluble	Solid	DI Leach	
MB 880-21026/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2040-7 MS	BH04	Soluble	Solid	DI Leach	
890-2040-7 MSD	BH04	Soluble	Solid	DI Leach	
890-2040-17 MS	BH09	Soluble	Solid	DI Leach	
890-2040-17 MSD	BH09	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

HPLC/IC

Analysis Batch: 21137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-7	BH04	Soluble	Solid	300.0	21026
890-2040-8	BH04	Soluble	Solid	300.0	21026
890-2040-9	BH05	Soluble	Solid	300.0	21026
890-2040-10	BH05	Soluble	Solid	300.0	21026
890-2040-11	BH06	Soluble	Solid	300.0	21026
890-2040-12	BH06	Soluble	Solid	300.0	21026
890-2040-13	BH07	Soluble	Solid	300.0	21026
890-2040-14	BH07	Soluble	Solid	300.0	21026
890-2040-15	BH08	Soluble	Solid	300.0	21026
890-2040-16	BH08	Soluble	Solid	300.0	21026
890-2040-17	BH09	Soluble	Solid	300.0	21026
890-2040-18	BH09	Soluble	Solid	300.0	21026
890-2040-19	BH10	Soluble	Solid	300.0	21026
890-2040-20	BH10	Soluble	Solid	300.0	21026
MB 880-21026/1-A	Method Blank	Soluble	Solid	300.0	21026
LCS 880-21026/2-A	Lab Control Sample	Soluble	Solid	300.0	21026
LCSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21026
890-2040-7 MS	BH04	Soluble	Solid	300.0	21026
890-2040-7 MSD	BH04	Soluble	Solid	300.0	21026
890-2040-17 MS	BH09	Soluble	Solid	300.0	21026
890-2040-17 MSD	BH09	Soluble	Solid	300.0	21026

Analysis Batch: 21139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2040-1	BH01	Soluble	Solid	300.0	21025
890-2040-2	BH01	Soluble	Solid	300.0	21025
890-2040-3	BH02	Soluble	Solid	300.0	21025
890-2040-4	BH02	Soluble	Solid	300.0	21025
890-2040-5	BH03	Soluble	Solid	300.0	21025
890-2040-6	BH03	Soluble	Solid	300.0	21025
MB 880-21025/1-A	Method Blank	Soluble	Solid	300.0	21025
LCS 880-21025/2-A	Lab Control Sample	Soluble	Solid	300.0	21025
LCSD 880-21025/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21025
890-2040-1 MS	BH01	Soluble	Solid	300.0	21025
890-2040-1 MSD	BH01	Soluble	Solid	300.0	21025

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH01
Date Collected: 03/03/22 11:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 22:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 01:31	CH	XEN MID

Client Sample ID: BH01
Date Collected: 03/03/22 11:07
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 12:55	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/09/22 23:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/11/22 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:22	CH	XEN MID

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH02
Date Collected: 03/03/22 11:20
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 09:31	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:37
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		10			21139	03/09/22 09:40	CH	XEN MID

Client Sample ID: BH03
Date Collected: 03/03/22 11:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 00:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 00:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21025	03/07/22 10:32	CH	XEN MID
Soluble	Analysis	300.0		20			21139	03/09/22 10:06	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:05	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH04
Date Collected: 03/03/22 09:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:05	CH	XEN MID

Client Sample ID: BH04
Date Collected: 03/03/22 09:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:23	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 01:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 01:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:29	CH	XEN MID

Client Sample ID: BH05
Date Collected: 03/03/22 09:40
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 02:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:10	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:52	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH06
Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:58	CH	XEN MID

Client Sample ID: BH06
Date Collected: 03/03/22 09:50
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 03:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:16	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 09:55
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:21	CH	XEN MID

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH07
Date Collected: 03/03/22 10:00
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 03:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:27	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:05
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:33	CH	XEN MID

Client Sample ID: BH08
Date Collected: 03/03/22 10:10
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 04:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:39	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:01	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Client Sample ID: BH09
Date Collected: 03/03/22 10:15
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 17:45	CH	XEN MID

Client Sample ID: BH09
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:03	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:30
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 05:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:09	CH	XEN MID

Client Sample ID: BH10
Date Collected: 03/03/22 10:35
Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	20908	03/07/22 12:57	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21187	03/10/22 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21336	03/10/22 16:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21529	03/14/22 12:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	20924	03/04/22 15:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21381	03/12/22 06:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 18:26	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1
SDG: 31403360.036.31403360.035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2040-1	BH01	Solid	03/03/22 11:05	03/03/22 15:10	2
890-2040-2	BH01	Solid	03/03/22 11:07	03/03/22 15:10	4
890-2040-3	BH02	Solid	03/03/22 11:10	03/03/22 15:10	0.5
890-2040-4	BH02	Solid	03/03/22 11:20	03/03/22 15:10	4
890-2040-5	BH03	Solid	03/03/22 11:37	03/03/22 15:10	2
890-2040-6	BH03	Solid	03/03/22 11:40	03/03/22 15:10	4
890-2040-7	BH04	Solid	03/03/22 09:25	03/03/22 15:10	0.5
890-2040-8	BH04	Solid	03/03/22 09:30	03/03/22 15:10	4
890-2040-9	BH05	Solid	03/03/22 09:35	03/03/22 15:10	0.5
890-2040-10	BH05	Solid	03/03/22 09:40	03/03/22 15:10	4
890-2040-11	BH06	Solid	03/03/22 09:45	03/03/22 15:10	0.5
890-2040-12	BH06	Solid	03/03/22 09:50	03/03/22 15:10	4
890-2040-13	BH07	Solid	03/03/22 09:55	03/03/22 15:10	0.5
890-2040-14	BH07	Solid	03/03/22 10:00	03/03/22 15:10	4
890-2040-15	BH08	Solid	03/03/22 10:05	03/03/22 15:10	0.5
890-2040-16	BH08	Solid	03/03/22 10:10	03/03/22 15:10	4
890-2040-17	BH09	Solid	03/03/22 10:15	03/03/22 15:10	0.5
890-2040-18	BH09	Solid	03/03/22 10:25	03/03/22 15:10	4
890-2040-19	BH10	Solid	03/03/22 10:30	03/03/22 15:10	0.5
890-2040-20	BH10	Solid	03/03/22 10:35	03/03/22 15:10	4

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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3/14/2022

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	X
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.7 1.0	Thermometer ID	T-NM-002	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	3.2.22	11:05	2	1	X	X	X
BH01	S	3.2.22	11:07	4	1	X	X	X
BH02	S	3.2.22	11:10	0.5	1	X	X	X
BH02	S	3.2.22	11:20	4	1	X	X	X
BH03	S	3.2.22	11:37	2	1	X	X	X
BH03	S	3.2.22	11:40	4	1	X	X	X
BH04	S	3.3.22	9:25	0.5	1	X	X	X
BH04	S	3.3.22	9:30	4	1	X	X	X
BH05	S	3.3.22	9:35	0.5	1	X	X	X
BH05	S	3.3.22	9:40	4	1	X	X	X

890-2040 Chain of Custody

Work Order Notes

CC: 113763100
AFE
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/3/22 3:40			
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 2 of 2

Work Order No: _____

3/14/2022

Project Manager:	Joseph Hernandez	Bill to: (if different)	Jim Raley
Company Name:	WSP	Company Name	WPX Energy
Address:	3300 North A Street	Address	5315 Buena Vista Dr.
City, State ZIP:	Midland, TX 79705	City, State ZIP	Carlsbad, NM 88220
Phone	281-702-2329	Email	Anna.Byers@wsp.com,

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	RDU 11	Turn Around	
Project Number:	31403360.036, 31403360.035	Routine	☒
Incident ID:	nAB1728553778,nAB1728551205	Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.2 / 1.0	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

CC: 113763100
AFE:
API: PA.2021.04159.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH06	S	3.3.22	9:45	0.5	1	X	X	X	
BH06	S	3.3.22	9:50	4	1	X	X	X	
BH07	S	3.3.22	9:55	0.5	1	X	X	X	
BH07	S	3.3.22	10:00	4	1	X	X	X	
BH08	S	3.3.22	10:05	0.5	1	X	X	X	
BH08	S	3.3.22	10:10	4	1	X	X	X	
BH09	S	3.3.22	10:15	0.5	1	X	X	X	
BH09	S	3.3.22	10:25	4	1	X	X	X	
BH10	S	3.3.22	10:30	0.5	1	X	X	X	
BH10	S	3.3.22	10:35	4	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/3/22 3:19	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-652 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL	M Hexane
B NaOH	N None
C - Zn Acetate	O - AsNaO2
D Nitric Acid	P Na2O4S
E - NaHSO4	Q - Na2SO3
F MeOH	R - Na2S2O3
G Amchlor	S H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U Acetone
J - DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH01 (890-2040-1)	3/3/22	11 05 Mountain		Solid			X	X	X	X	X	1	
BH01 (890-2040-2)	3/3/22	11 07 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-3)	3/3/22	11 10 Mountain		Solid			X	X	X	X	X	1	
BH02 (890-2040-4)	3/3/22	11 20 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-5)	3/3/22	11 37 Mountain		Solid			X	X	X	X	X	1	
BH03 (890-2040-8)	3/3/22	11 40 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-7)	3/3/22	09 25 Mountain		Solid			X	X	X	X	X	1	
BH04 (890-2040-8)	3/3/22	09 30 Mountain		Solid			X	X	X	X	X	1	
BH05 (890-2040-9)	3/3/22	09 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: KF 3.4.22
Relinquished by: Olan Cup 3 4 22	Date/Time	Company	Received by: KF Date/Time 3.4.22 13:00 Company Xenco
Relinquished by:	Date/Time	Company	Received by: Date/Time 13:15 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-652 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M - Hexane
B - NaOH	N None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W - pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH05 (890-2040-10)	3/3/22	09 40 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-11)	3/3/22	09 45 Mountain		Solid			X	X	X	X	X	1	
BH06 (890-2040-12)	3/3/22	09 50 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-13)	3/3/22	09 55 Mountain		Solid			X	X	X	X	X	1	
BH07 (890-2040-14)	3/3/22	10 00 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-15)	3/3/22	10 05 Mountain		Solid			X	X	X	X	X	1	
BH08 (890-2040-16)	3/3/22	10 10 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-17)	3/3/22	10 15 Mountain		Solid			X	X	X	X	X	1	
BH09 (890-2040-18)	3/3/22	10 25 Mountain		Solid			X	X	X	X	X	1	

Note. Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time.	Method of Shipment:

Relinquished by: Clive Cuff 3422	Date/Time	Company	Received by:	Date/Time: 3/4/22 13:15	Company: Xenco
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-652 3
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 3 of 3
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2040-1
Address: 1211 W Florida Ave,	Due Date Requested: 3/9/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: RDU 11	Project #: 88000203			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M Hexane
B NaOH	N None
C Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R - Na2S2O3
G - Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I - Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX	8015MOD_Calc	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BH10 (890-2040-19)	3/3/22	10 30 Mountain		Solid			X	X	X	X	X	1	
BH10 (890-2040-20)	3/3/22	10 35 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:		
Relinquished by: Clae Cap 3422	Date/Time	Company	Received by: KF	Date/Time 3422 1315	Company XENCO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2040-1
SDG Number: 31403360.036.31403360.035

Login Number: 2040
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 03/04/22 01:21 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 95617

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 95617
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. At this time, the largest variance the OCD can grant is 500 ft2 for confirmation samples. Sidewall and floor samples should represent no more than 500 ft2. The work will need to occur in 90 days after the work plan has been approved.	5/4/2022

District I
1625 N. French Dr., Hobbs, NM 88240
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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 321955

QUESTIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nHMP1412241998**
Incident Name	**NHMP1412241998 ROSS DRAW UNIT #011 @ 30-015-24307**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-015-24307] ROSS DRAW UNIT #011**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	ROSS DRAW UNIT #011
Date Release Discovered	03/18/2014
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Flow Line - Production | Crude Oil | Released: 10 BBL | Recovered: 0 BBL | Lost: 10 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Production | Produced Water | Released: 190 BBL | Recovered: 0 BBL | Lost: 190 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/11/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	602
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	10/30/2023
On what date will (or did) the final sampling or liner inspection occur	10/30/2023
On what date will (or was) the remediation complete(d)	10/30/2023
What is the estimated surface area (in square feet) that will be reclaimed	11142
What is the estimated volume (in cubic yards) that will be reclaimed	1979
What is the estimated surface area (in square feet) that will be remediated	11142
What is the estimated volume (in cubic yards) that will be remediated	1979
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	*Not answered.*
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	Yes
In which state is the disposal taking place	Texas
What is the name of the out-of-state facility	R360
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/11/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**321957**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**10/30/2023**
What was the (estimated) number of samples that were to be gathered	**12**
What was the sampling surface area in square feet	**11142**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	11142
What was the total volume (cubic yards) remediated	1979
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	11142
What was the total volume (in cubic yards) reclaimed	1979
Summarize any additional remediation activities not included by answers (above)	Delineation sufficiently characterizes the Site and no further action was needed per BLM due to a Cultural Site within the path of investigation. The portion of the path of investigation that was remediated and restored with clean backfill material is detailed in the Closure Reports for Incident Numbers nAB1728553778 and nAB1728551205. Incident Numbers nAB1728553778 and nAB1728551205 overlapped the northern section of the path of investigation, thus were remediated simultaneously. Remediation activities may be referenced in the respective Closure Reports
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

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QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 321955

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	246289
	Action Number: 321955
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
bhall	Closure approved. Remediation and revegetation reports will need to be submitted and approved before this incident will receive the final status of "Restoration Complete".	3/20/2024
bhall	A reclamation and/or revegetation report will not be accepted until reclamation and/or revegetation of the release area are complete and meet the requirements of 19.15.29.13 NMAC.This release in an area not reasonably needed for production or drilling activities and will need to be reclaimed and revegetated as early as practicable.	3/20/2024
bhall	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards; OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	3/20/2024
bhall	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	3/20/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/20/2024