

# **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 <sup>†</sup>
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

<sup>†</sup>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 <a href="mailto:joseph@etechenv.com">joseph@etechenv.com</a> or Erick Herrera (432) 305-6416 or <a href="mailto:erick@etechenv.com">erick@etechenv.com</a>. **Appendix G** provides correspondence email notification receipts associated with the subject release.

Sincerely,

Etech Environmental and Safety Solutions, Inc.

Erick Herrera Staff Geologist

Ericl &

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

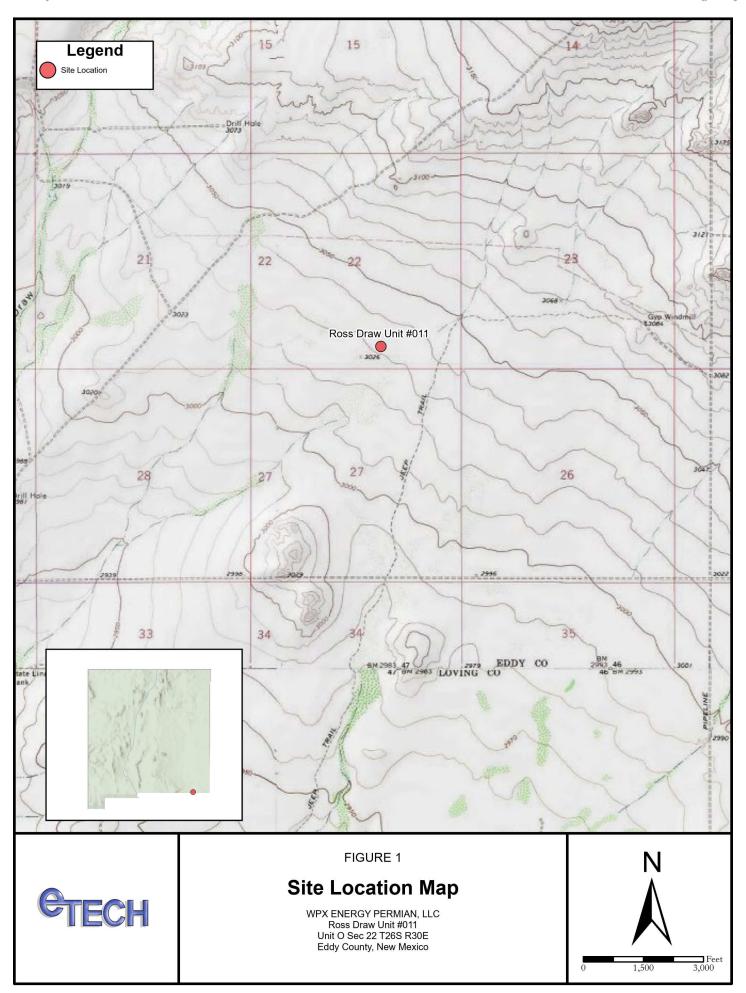
Appendix G: Approved Remediation Work Plan

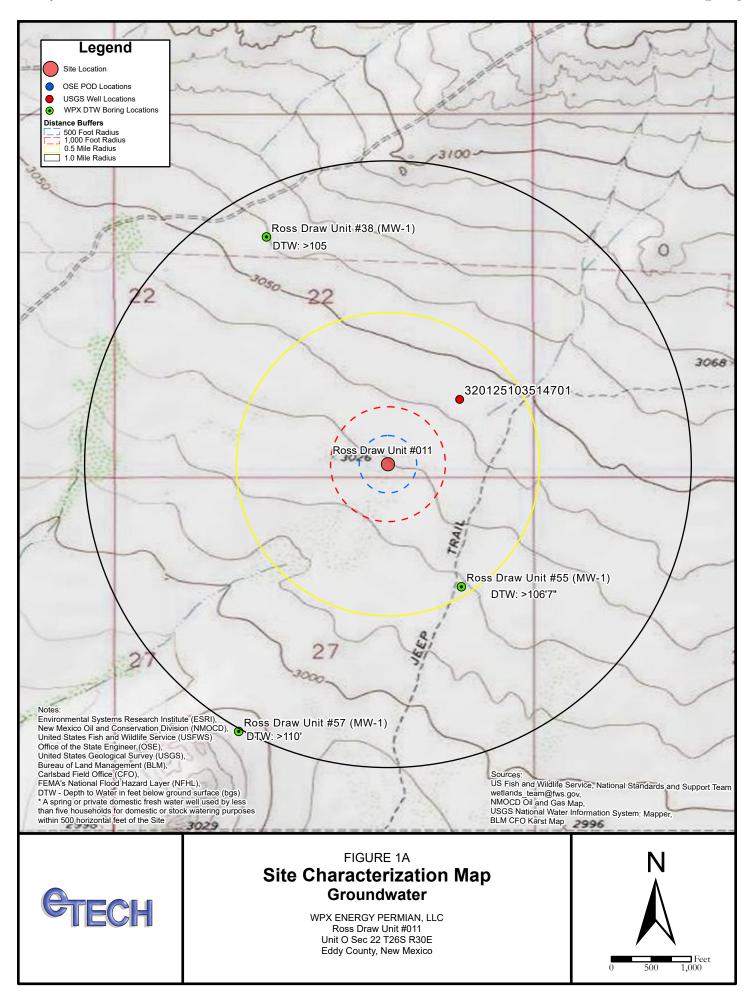
# **APPENDIX A**

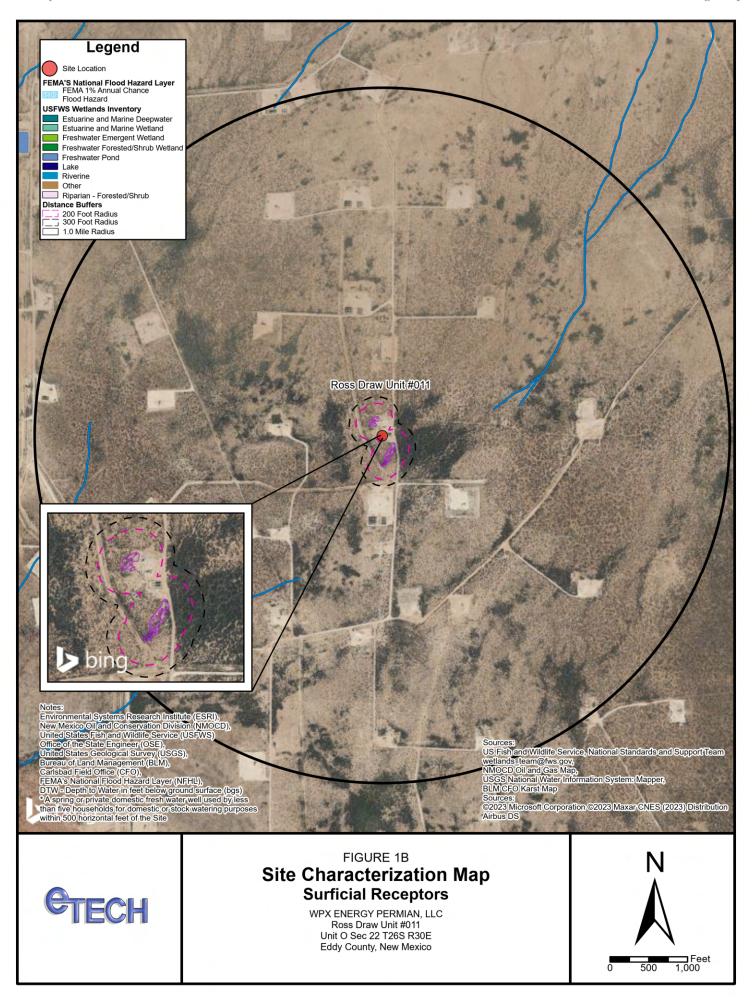
**Figures** 

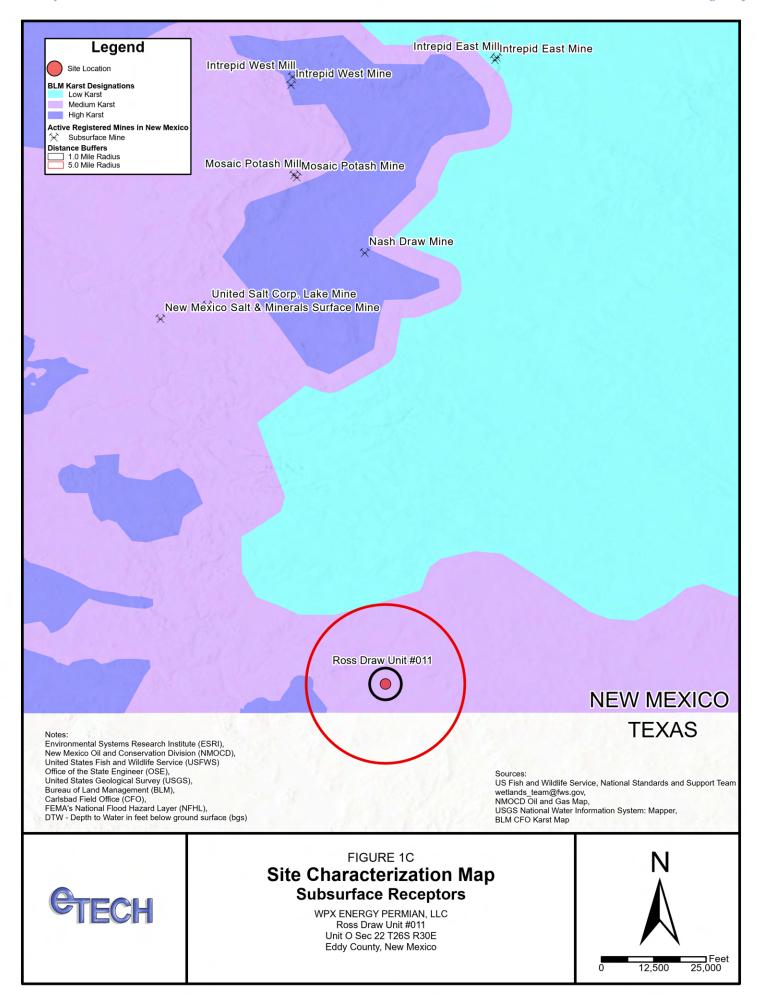
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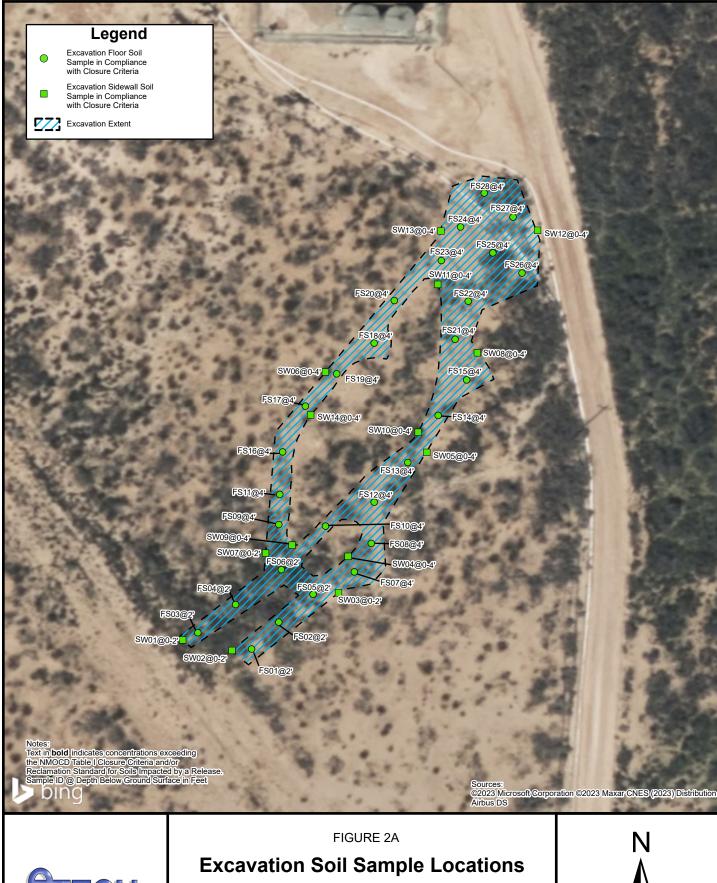






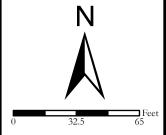


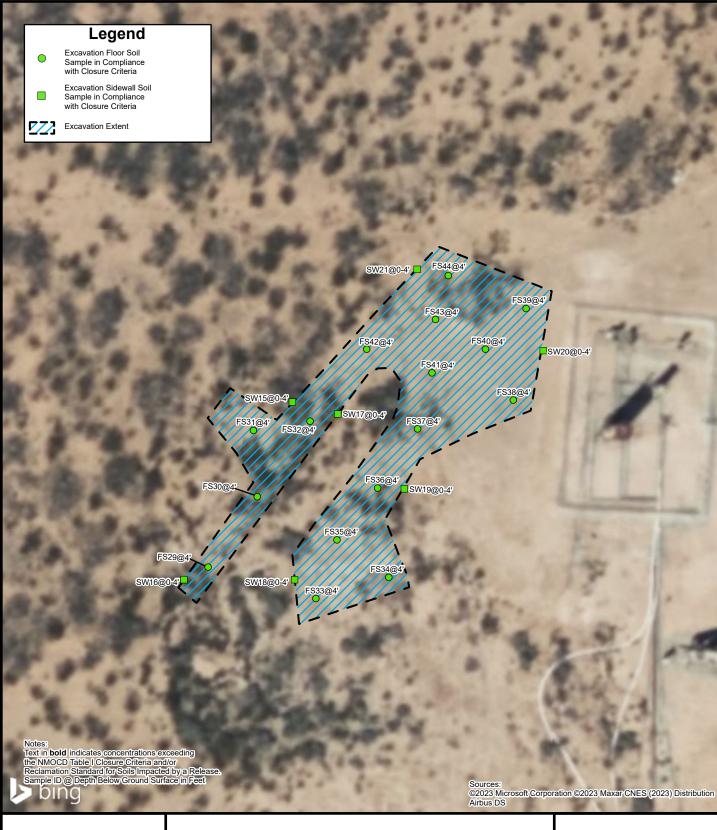






WPX ENERGY PERMIAN, LLC Ross Draw Unit #011 Unit O Sec 22 T26S R30E Eddy County, New Mexico



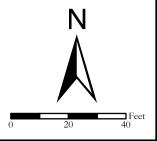




### FIGURE 2B

## **Excavation Soil Sample Locations**

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



# **APPENDIX B**

Referenced Well Records

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		HR					BORI	NG LOG/	MONITORING W	ELL COMPLETION	DIAGRAM	
>	COMPLIANCE						Boring/Wel	l Number:	W-1	Location:		
			LUI		NC		Date:	IVI	<u>vv - 1</u>	Ross Draw Unit #55		
	11/	3 U			11.9				/2020	WPX Ene	ergy	
Drilling Me			Sampling !				Logged By:		m DC	Drilled By:	DE	
Gravel Pack	ir Rotar	У	Gravel Pac	NC k Depth Inte	one erval:		Seal Type:	J. L11	nn, PG Seal Depth Interval:	Talon L	re	
	0/20 Sar			3 B	lags		N	lone	None	32.0161	65	
Casing Typ PVC	e:	Diameter:		Depth Inter			Boring Tota	al Depth (ft. BC		Longitude:	16	
Screen Type	e:	2-inch Slot:		0-101'7' Diameter:		Interval:	Well Total	Depth (ft. BGS	5'7" ):	-103.863 Depth to Water (ft. BTOC):	DTW Date:	
PVC		0.010-iı	nch		101'7"				5'7"	>106' 7"	12/16/2020	
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Litholog	y/Remarks	Well Completion	
0 5 10 15	NM	L	D	N	N	NM	SP	NS	_	olored poorly graded n minor silt		
20 25 30	NM	L	D	N	N	NM	SW	NS	Pale tan orange well graded fine sand with minor medium and coarse sand			
35 40 45 50 55 60	NM	L	D	N	N	NM	SP	NS	Pale orange brown poorly graded fine sand with minor gravel			
65 70 75 80 85	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel			
90 95	NM	L	D	N	N	NM	SP	NS	Darker grey poorly graded fine sand with minor silt and minor medium sand		$[ \ \ ] \ ]$	
100 106'7"	NM	M	D	N	N	NM	SC	NS		d with moderate silt TD 106'7"		

# **APPENDIX C**

Photographic Logs

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#### PHOTOGRAPHIC LOG

WPX Energy Permian, LLC
Ross Draw Unit #011
Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and
nAPP2200728755



Poultion - #082-021402 / - 103-86895\* (#15-6fb)
Altitude - 0097 (#2-6 fb)
Distant - Wist-Ba
Altitude | 0007
Earlies - #082-021402 / - 103-86895\* (#15-6 fb)
Distant - Wist-Ba
Altitude | 0007
Earlies - #082-021402 / - 103-86895\* (#15-6 fb)
Earlies - #082-021402 / - 103-86

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.



Position +032 021536\* / -103.866876\* (±15.7ft)
Allitude :03381 (±10.8ft)
Datum W05:-84
Azimuth Dearing :028 \* N29E 0498m ls True (±12\*)
Flevahan Angle :-0.07
Zeom: 9.5X
RDUIT

Photograph 3 Date: 10/26/2023 Description: Northeastern view of excavation activities from the southern excavation.

Photograph 4 Date: 10/26/2023

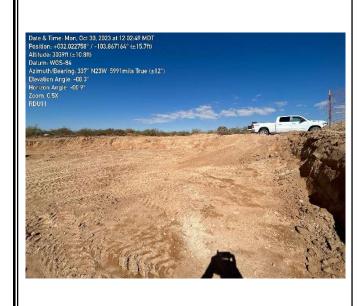
Description: Northeastern view of excavation activities from the southern excavation.



#### **PHOTOGRAPHIC LOG**

WPX Energy Permian, LLC Ross Draw Unit #011 Incident Numbers: nAB1712951426, nAB1728553778, nAB1728551205, and nAPP2200728755

Azimuth/Bearing, 299° N61W 5316mils True (±12°) Elevation Angle, -10.0° Horizon Angle, -01.9°



Photograph 2 Date: 10/30/2023 Description: Northwestern view of excavation activities from the northern excavation.

Photograph 1 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



Cresting Angle - 4947
Herker Angle - 40147
Zeour, GUX
780U 11

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.



Date & Trace, The, New 28, 2028 at 11 65957 MST
Peeddony-4092-2020 7 -1 00.8079257 c=15 6ft
Althority WidS-86
Astmothe Searching 245" \$3099 4495 mile True 1-1670
Classific August - 40.25"
Astmothe Register - 40.25"
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Astmothe Register - 40.25"
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As

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** 

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# 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 Closur Release (NMAC 19.15.2			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)		s Impacted by a	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 Closur Release (NMAC 19.15.2		s Impacted by a	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

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## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS01 2'	5
FS02 2'	6
FS03 2'	7
FS04 2'	8
FS05 2'	9
FS06 2'	10
QC Summary Data	11
QC - Volatile Organics by EPA 8021B	11
QC - Nonhalogenated Organics by EPA 8015D - GRO	12
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	13
QC - Anions by EPA 300.0/9056A	14
Definitions and Notes	15
Chain of Custody etc.	16

## **Sample Summary**

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
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.



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

		E310074-01				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: 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	Analy	yst: 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	Analy	yst: 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	Analy	yst: IY		Batch: 2341077
Chloride	ND	20.0	1	10/12/23	10/13/23	



Chloride

## 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 Reporting Analyte Result Limit Dilution Analyzed Notes Prepared Analyst: RKS Batch: 2341068 mg/kg mg/kg Volatile Organics by EPA 8021B 10/12/23 10/12/23 ND 0.0250 Benzene 1 10/12/23 10/12/23 Ethylbenzene ND 0.0250ND 0.02501 10/12/23 10/12/23 Toluene 1 10/12/23 10/12/23 ND o-Xylene 0.02501 10/12/23 10/12/23 ND 0.0500 p,m-Xylene 10/12/23 10/12/23 1 Total Xylenes ND 0.025010/12/23 10/12/23 94.3 % 70-130 Surrogate: 4-Bromochlorobenzene-PID Analyst: RKS mg/kg Batch: 2341068 Nonhalogenated Organics by EPA 8015D - GRO mg/kg 10/12/23 10/12/23 ND 20.0 1 Gasoline Range Organics (C6-C10) Surrogate: 1-Chloro-4-fluorobenzene-FID 93.1 % 10/12/23 10/12/23 70-130 mg/kg mg/kg Analyst: KM Batch: 2341072 Nonhalogenated Organics by EPA 8015D - DRO/ORO ND 25.0 10/12/23 10/12/23 Diesel Range Organics (C10-C28) ND 10/12/23 10/12/23 Oil Range Organics (C28-C36) 50.0 1 10/12/23 10/12/23 Surrogate: n-Nonane 99.8 % 50-200 Analyst: IY Batch: 2341077 Anions by EPA 300.0/9056A mg/kg mg/kg

20.0

1

10/12/23

10/12/23

ND



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'

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Analy	yst: 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	Analy	yst: 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	Anal	yst: IY		Batch: 2341077
· · · · · · · · · · · · · · · · · · ·	ND	<u> </u>	·	10/12/23	10/12/23	.,,



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'

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: 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	Anal	yst: IY		Batch: 2341077



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'

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: IY		Batch: 2341077
	23.9	20.0		10/12/23	10/12/23	



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'

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: 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	Anal	yst: IY		Batch: 2341077
Chloride	23.9	20.0	1	10/12/23	10/12/23	<u> </u>



## **QC Summary Data**

ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 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 4.67 93.4 70-130 5.00 Benzene 0.0250 Ethylbenzene 4.61 0.0250 5.00 92.2 70-130 4.66 0.0250 5.00 93.2 70-130 Toluene 93.0 o-Xylene 4.65 0.0250 5.00 70-130 9.43 10.0 94.3 70-130 0.0500 p.m-Xvlene 93.9 70-130 14.1 15.0 Total Xylenes 0.0250 8.00 94.7 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.58 Matrix Spike (2341068-MS1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23 4.42 0.0250 5.00 ND 54-133 Benzene ND 87.4 61-133 Ethylbenzene 4.37 0.0250 5.00 Toluene 4.43 0.0250 5.00 ND 88.6 61-130 4.41 ND 88.3 63-131 5.00 0.0250 o-Xylene p,m-Xylene 8.94 0.0500 10.0 ND 89.4 63-131 13.4 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.57 8.00 Matrix Spike Dup (2341068-MSD1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23 4.46 0.0250 5.00 ND 89.1 54-133 0.784 20 61-133 0.970 4.41 0.0250 5.00 ND 88.3 20 Ethylbenzene Toluene 4 46 0.0250 5.00 ND 89.2 61-130 0.636 20 4.46 5.00 ND 89.2 63-131 1.09 20 o-Xylene 0.0250 0.933 9.03 10.0 ND 90.3 63-131 20 p,m-Xylene 0.0500



13.5

7.64

0.0250

15.0

8.00

ND

89.9

95.6

63-131

70-130

0.983

20

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

## **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr	Project Name: Project Number:	ROSS DRAW UNIT #011 01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	10/17/2023 9:46:36AM

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno	•			1	0/17/2023 9:46:36A
	Nonhalogenated Organics by EPA 8015D - GRO								Analyst: RKS
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
Blank (2341068-BLK1)							Prepared: 1	0/12/23 Ar	nalyzed: 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: 1	0/12/23 Ar	nalyzed: 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: 1	0/12/23 Ar	nalyzed: 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: 1	0/12/23 Ar	nalyzed: 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

Carlsbad NM, 88220		Project Manager	r: Gi	lbert Moreno				1	.0/17/2023 9:46:36AI
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2341072-BLK1)							Prepared: 1	0/12/23 Aı	nalyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	51.7		50.0		103	50-200			
LCS (2341072-BS1)							Prepared: 1	0/12/23 Aı	nalyzed: 10/12/23
Diesel Range Organics (C10-C28)	248	25.0	250		99.2	38-132			
urrogate: n-Nonane	49.2		50.0		98.3	50-200			
Matrix Spike (2341072-MS1)				Source:	E310074-	06	Prepared: 1	0/12/23 A1	nalyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132			
urrogate: n-Nonane	50.8		50.0		102	50-200			
Matrix Spike Dup (2341072-MSD1)				Source:	E310074-	06	Prepared: 10	0/12/23 Aı	nalyzed: 10/12/23
Diesel Range Organics (C10-C28)	254	25.0	250	ND	101	38-132	0.193	20	
Gurrogate: n-Nonane	51.2		50.0		102	50-200			

Chloride

Chloride

Matrix Spike Dup (2341077-MSD1)

## **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220		Project Name: Project Number: Project Manager	: 0	ROSS DRAW U 1058-0007 Gilbert Moreno				10	<b>Reported:</b> 0/17/2023 9:46:36AM
		Anions	by EPA	300.0/9056	4				Analyst: IY
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
Blank (2341077-BLK1)							Prepared: 1	0/12/23 Ana	alyzed: 10/12/23
Chloride	ND	20.0							
LCS (2341077-BS1)							Prepared: 1	0/12/23 An	alyzed: 10/12/23
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2341077-MS1)				Source:	E310074-	01	Prepared: 1	0/12/23 An	alyzed: 10/12/23

250

250

20.0

20.0

ND

105

103

Source: E310074-01

80-120

80-120

1.37

Prepared: 10/12/23 Analyzed: 10/13/23

20

262

258

#### 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.



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lient: W	/PX Energ	v Permia	n. LLC.	T	Bill To				1;	ab U	se Or	nlv				TAT		EPA P	rogram
	Brushy Ga				Attention: Jim Raley		Lab	WO#			-	Number	1	D 2	2D T	1000	Standard	CWA	SDW
	Manager: (				Address: 5315 Buena Vista Dr		E	310	07	4		058.00					5 day TAT		
	13000 W				City, State, Zip: Carlsbad, NM,	, 88220						sis and Me							RCR
	te, Zip_Oc		79765		Phone: 575-885-7502			5			-								
-	32-541-77				Email: jim.raley@dvn.com			801										State	
mail: De	evon-tean	n@etech	env.com		WO: 21153712			O by						-1			NM CO	UT AZ	TX
ollected	d by: Edyt	e Konan			Incident ID: NHMP1412241998 nAB1712951426, nAB1728555 nAB1728551205, nAPP22007	3778,	(-)	TPH GRO/DRO/ORO by 8015	8021	8260	010	300.0	- 1	Σ		¥	×		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID		Lab Number	Depth(ft.)	TPH GRO	BTEX by 802.	VOC by 8260	Metals 6010	Chloride		верос		В		Remark	s
9:00	10.6.23	S	1		FS01		2'							х					
9:10	10.6.23	S	1		FS02	2	2'							x					
9:20	10.6.23	S	1		FS03	3	2'							х					
9:30	10.6.23	S	1		FS04	4	2'							х					
9:40	10.6.23	S	1		FS05	5	2'							х					- X.
9:50	10.6.23	S	1		FS06	4	2'							х					
													-	-					
					Kill														
				10110123															
_																			
ddition	al Instruc	tions:														-			
					l am aware that tampering with or intentionally egal action.  Sampled by: GM	y mislabelling the samp	ole loca	tion,									ived on ice the da s than 6 °C on sub		
elinquish	ed by: Signa	ture)	Date	0123 Time	Received by: (Signature)	Date 10-10	23	Time	221	0	Rece	eived on ic	e:	-	b Us	e Only			
Mucl	ed by: (Signa	anch		11-33 17	Received by: (Signature)		23	Time	73	0_	T1		_ I	2			<u>T3</u>		
elinquish	ed by: (Signa	U	60 10	. 10	330 Regeived by (Signature)	Date 170.12.	72	Time	1	5	AVG	Temp °C_	4	1					



Project Informat	
Pross I	2

Chain of Custody

	Rece
Page1 of1	ived by
m NA	OCD:
RA	1/18/202
	Received by OCD: 1/18/2024 1:45:48 PM
	PM

Client: W	/PX Energ	v Permia	in, LLC.	#,011	1	Bill To		F		15	hille	se Or	der		_		T/	A.T.		EDA D	ogra	
	Brushy Ga			1		Attention: Jim Raley		Lab WO#			J US	Job Number			10	2D			andard		ogram	
Project Manager: Gilbert Moreno								E310074		1	01058-0007			20	30	-	AND DESCRIPTION OF THE PERSON NAMED IN	CWA	SDWA			
	13000 W					City, State, Zip: Carlsbad, NM, 8822	0	ESIMIT			Annual Control	-	d Metho	_			) (	day TAT		DCDA		
	e, Zip_O					Phone: 575-885-7502	.0	-		1		Anary	sis an	a ivietno	I	1					RCRA	
_	32-541-7	-				Email: jim.raley@dvn.com			115											State		
	evon-tear		env.com			WO: 21153712			y 80										NM CO		TVI	
						Incident ID: NHMP1412241998,			TPH GRO/DRO/ORO by 8015										MINI CO	UT AZ	IA	
						nAB1712951426, nAB1728553778,			0/0				0		5							
Collected	by: Edyt	e Konan				nAB1728551205 nAPP2200728755		-	/DR	8023	8260	010	Chloride 300.0		N		×					
Time	Date	Matrix	No. of	Camala ID		THAST ZATION HAPPZZINIZAZA	Lab	H.	GRO	(by	by 8	als 6	ride		00	13	O		×I	145		
Sampled	Sampled	iviatrix	Containers	Sample ID			Number	Depth(ft.)	TPH	BTEX by	VOC by	Metals 6010	CHIO		верос	1	GDOC			Remarks		
9:00	10.6.23	S	1			FS01	1.1												0	1	(Waters	
3.00	10.0.23	3	-			F301		2'							X	1			Corr	cter	Don	10Ct
9:10	10.6.23	S	1			FS02	2	2'			THE R	100									The state of	
5.10	10.0.25	ŭ	-			1302	2	-							X				name	to	mate	h
9:20	10.6.23	5	1			FS03	3	2'					Teal		1				The second second			No. of Street
								-							X				Proje	t m	me C	Y
9:30	10.6.23	S	1			FS04	14	2'							х				Samy	a o		
															^				Sum	100	mtain	en-s
9:40	10.6.23	S	1			FS05	5	2'							x				.0.	01		
							12								_^				per	CIR	1	
9:50	10.6.23	5	1			FS06	10	2'							x				10	7 11	000	
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Addition	al Instru	ctions:													<u> </u>							
Addition	ioi inscioi	ctions.																				
I, (field sam	pler), attest t	o the validity	and authent	icity of this san	ople, I am	n aware that tampering with or intentionally mislab	elling the same	le loca	tion.			Sample	s requiri	ng thermal	preserva	ation m	ust be re	eceived	on ice the day	they are same	led or	
				may be grounds								1000							an 6 °C on subs			
Relinquish	ed by: Sign	ature)	Date		ime	Received by: (Signature)	Date		Time			White		70000	1	ab Us	e On	lv			Contractors.	
1	神		1011	0123	12:20	o triculle trush	10-10	13	1.	220	)	Rece	havie	on ice:		)/ N		· y				
Relinquish	ed by: (Sign	ature) /	Date	, n T	ime	Received by: (Signature)	Date	20	Time			NECE	iveu	office.	C	// N						
Much	ille t	buch	- 10-	11-25	170	O more messo	10.11.	73	1-	730		T1			T2				T3			
Relinquish	ed by: (Sign	ature)/	Date	-	ime	Resolved his (Signature)	Date		Time			1.4			12		SHEET		13			
1 de	Man	My	160 10	.11.73	23	201 a. H. Man	10.12.	72	X	70	5	AVG	Tem	o°C	4							
Sample Ma	trix: 5 - Soil. S	id - Solid, Se -	Sludge, A - A	Aqueous, O - Ot	her	anni i i i i i i i i i i i i i i i i i i	Container	Type	0 .	place	_	-	_		hor a	loce .	. 1/0	۸				Acres 1
Note: Sam	ples are dis	carded 30 d	lays after re	sults are repo	rted unli	ess other arrangements are made. Hazardou	samples wil	here	turne	d to cli	ent o	r disa	osed o	ag = all	ont c	man.	The	ranc	et for the	aluele of the	abava	
samples is	applicable o	only to thos	e samples r	eceived by th	e labora	story with this COC. The liability of the laborate	ory is limited	to the	amou	unt paid	d for	on the	repor	t.	ent es	pense	. The	repo	t for the an	arysis of the	above	



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Page 40 of 457

envirotech Inc.

Printed: 10/12/2023 12:24:09PM

#### **Envirotech Analytical Laboratory**

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	8:25		Work Order ID:	E310074
Phone:	(539) 573-4018	Date Logged In:	10/11/23 15	5:32		Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/17/23 1	7:00 (3 day TAT)			
Chain of	Custody (COC)						
	e sample ID match the COC?		No				
	e number of samples per sampling site location ma	tch the COC	Yes				
	imples dropped off by client or carrier?		Yes	Carrier: C	Courier		
	e COC complete, i.e., signatures, dates/times, reques	sted analyses?	Yes				
5. Were al	I samples received within holding time?  Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssi	•	Yes			Comments	s/Resolution
Sample T	urn Around Time (TAT)					_	
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		I =	_	containers did not
Sample C	<u>ooler</u>				match the p	project name	on COC. Client
	ample cooler received?		Yes		asked to ch	ange the proj	ect name on the
8. If yes, v	was cooler received in good condition?		Yes		coc.		
9. Was the	e sample(s) received intact, i.e., not broken?		Yes		333.		
10. Were	custody/security seals present?		No				
11. If yes,	were custody/security seals intact?		NA				
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples ar minutes of sampling visible ice, record the temperature. Actual sample	e received w/i 15	Yes				
Sample C	•	· • · · · · · <u></u>	-				
	queous VOC samples present?		No				
	OC samples collected in VOA Vials?		NA				
	head space less than 6-8 mm (pea sized or less)?		NA				
	trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers	?	Yes				
	appropriate volume/weight or number of sample contain		Yes				
Field Lab							
	ield sample labels filled out with the minimum info	ormation:					
	imple ID?		Yes				
	ate/Time Collected?		Yes				
C	ollectors name?		Yes				
	<u>reservation</u>						
	the COC or field labels indicate the samples were pr	reserved?	No				
	imple(s) correctly preserved?	. 1.0	NA				
24. Is lab	filteration required and/or requested for dissolved n	netals?	No				
	se Sample Matrix						
	he sample have more than one phase, i.e., multipha		No				
27. If yes,	does the COC specify which phase(s) is to be analy	yzed?	NA				
Subcontra	act Laboratory						
28. Are sa	mples required to get sent to a subcontract laborato	ry?	No				
29. Was a	subcontract laboratory specified by the client and is	f so who?	NA	Subcontract Lab	b: NA		
Client In	struction						

Date

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

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

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: 10/25/23

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

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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

### **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS07 4'	6
FS08 4'	7
FS09 4'	8
FS10 4'	9
FS11 4'	10
FS12 4'	11
FS13 4'	12
FS14 4'	13
FS15 4'	14
FS16 4'	15
FS17 4'	16
FS18 4'	17
FS19 4'	18
FS20 4'	19
FS21 4'	20
FS22 4'	21
FS23 4'	22
FS24 4'	23
FS25 4'	24
FS26 4'	25

# Table of Contents (continued)

	FS27 4'	26
	FS28 4'	27
Q	C Summary Data	28
	QC - Volatile Organics by EPA 8021B	28
	QC - Nonhalogenated Organics by EPA 8015D - GRO	30
	QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	32
	QC - Anions by EPA 300.0/9056A	34
D	efinitions and Notes	36
С	hain of Custody etc.	37

### **Sample Summary**

Γ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
l	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	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.



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

		E310120-01				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Analyte	Result	Limit	Dilution	Trepared	Analyzed	rotes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	Analy	st: 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	Analy	vst: 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	Analy	vst: BA		Batch: 2342076
Chloride	1260	20.0	1	10/19/23	10/19/23	



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

	ъ «:				
Result		Dilution	Prepared	Analyzed	Notes
Result	Liiiit			rmaryzed	
mg/kg	mg/kg	Anal	yst: RKS		Batch: 2342066
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0500	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
	95.8 %	70-130	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: RKS		Batch: 2342066
ND	20.0	1	10/19/23	10/20/23	
	88.8 %	70-130	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: KM		Batch: 2342068
ND	25.0	1	10/19/23	10/20/23	
ND	50.0	1	10/19/23	10/20/23	
	98.8 %	50-200	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: BA		Batch: 2342076
	ND Mg/kg ND	mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           ND         0.0250           MD         25.0           MB/kg         MB/kg           MB/kg         MB/kg           ND         25.0           ND         50.0           98.8 %	Result         Limit         Dilution           mg/kg         mg/kg         Anal           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           MD         0.0250         1           MD         25.8%         70-130           mg/kg         mg/kg         Anal           ND         20.0         1           88.8%         70-130           mg/kg         mg/kg         Anal           ND         25.0         1           ND         50.0         1           98.8%         50-200	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0500         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23           ND         50.0         1         10/19/23           98.8 %         50-200         10/19/23	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0500         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           mg/kg         70-130         10/19/23         10/20/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23         10/20/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23



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

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2342076
Chloride	1290	20.0	1	10/19/23	10/19/23	·



Chloride

# **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							
Reporting							
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	Analys	t: 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	Analys	t: 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	Analys	t: BA		Batch: 2342076	

20.0

1350

10/19/23

10/19/23



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							
Reporting							
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2342076	
Chloride	1240	20.0	1	10/19/23	10/19/23		



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

		E310120-00				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Tillayee	resuit	Emit	Bilation	Trepured	7 Hary Zea	110105
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2342076
Chloride	1270	20.0	1	10/19/23	10/19/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	alyst: 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	Ana	alyst: 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	Ana	alyst: BA		Batch: 2342076
Chloride	1490	20.0	1	10/19/23	10/19/23	



Anions by EPA 300.0/9056A

Chloride

### **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					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	

mg/kg

20.0

mg/kg

1370

Analyst: BA

10/19/23

10/19/23



Batch: 2342076

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				
		Reporting				
Analyte	Result	Limit	Dilutio	on Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	nalyst: 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	An	nalyst: 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	An	nalyst: BA		Batch: 2342076
Chloride	1410	20.0	1	10/19/23	10/19/23	



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

Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Anal	yst: RKS	<u> </u>	Batch: 2342066
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
ND	0.0500	1	10/19/23	10/20/23	
ND	0.0250	1	10/19/23	10/20/23	
	95.2 %	70-130	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: RKS		Batch: 2342066
ND	20.0	1	10/19/23	10/20/23	
	87.4 %	70-130	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: KM		Batch: 2342068
ND	25.0	1	10/19/23	10/20/23	
ND	50.0	1	10/19/23	10/20/23	
	95.2 %	50-200	10/19/23	10/20/23	
mg/kg	mg/kg	Anal	yst: BA		Batch: 2342076
1240	20.0	1	10/19/23	10/19/23	
	mg/kg ND mg/kg ND mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           MD         20.0250           MD         20.0           87.4 %         mg/kg           ND         25.0           ND         50.0           95.2 %         mg/kg           mg/kg         mg/kg	mg/kg         mg/kg         Anal           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           95.2 %         70-130           mg/kg         mg/kg         Anal           ND         20.0         1           87.4 %         70-130         1           mg/kg         mg/kg         Anal           ND         25.0         1           ND         50.0         1           95.2 %         50-200           mg/kg         mg/kg         Anal	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0500         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23           87.4 %         70-130         10/19/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23           ND         50.0         1         10/19/23           ND         50.0         1         10/19/23           mg/kg         mg/kg         Analyst: KM	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0500         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           ND         0.0250         1         10/19/23         10/20/23           MD         0.0250         1         10/19/23         10/20/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23         10/20/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           <



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				
		Reporting				
Analyte	Result	Limit	Dilutio	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2342076
Chloride	935	20.0	1	10/19/23	10/19/23	



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	2
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		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: 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	Analy	vst: 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	Analy	vst: 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	Analy	vst: 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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2342076
Chloride	429	20.0	1	10/19/23	10/19/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2342076
Chloride	2220	20.0	1	10/19/23	10/19/23	



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

		E310120-13				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: 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	
o,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	Analy	st: 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	Analy	st: 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	Analy	/st: BA		Batch: 2342076
Chloride	466	20.0	1	10/19/23	10/20/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2342076
Chloride	422	20.0	1	10/19/23	10/20/23	



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					
Reporting							
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2342076	
Chloride	984	20.0	1	10/19/23	10/20/23	·	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2342076
Chloride	957	20.0	1	10/19/23	10/20/23	



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

		E310120-19				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
· many te	resur	2	2	Tropared	111111,200	110100
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2342076
Chloride	1230	20.0	1	10/19/23	10/20/23	



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

		L510120 20				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	
-Xylene	ND	0.0250	1	10/19/23	10/20/23	
o,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	Analy	st: 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	Analy	st: 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	Analy	vst: BA		Batch: 2342076
Chloride	1990	20.0	1	10/19/23	10/20/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: IY		Batch: 2342077
Chloride	3210	40.0	2	10/19/23	10/20/23	



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

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	llyst: IY		Batch: 2342077
· · · · · · · · · · · · · · · · · · ·	3220	40.0	2	10/19/23	10/20/23	·

				J							
WPX Energy - Carlsbad		Project Name:	R	OSS DRAW	UNIT #011				Reported:		
5315 Buena Vista Dr		Project Number:	01	1058-0007	8-0007			*			
Carlsbad NM, 88220	· ·						10	/25/2023 12:15:12PM			
		Volatile O	rganics l	by EPA 802	21B				Analyst: RKS		
Analyte		Reporting	Spike	Source		Rec		RPD			
	Result	Limit	Level	Result	Rec	Limits	RPD	Limit			
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes		
Blank (2342065-BLK1)							Prepared: 1	0/19/23 Ana	alyzed: 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	0/19/23 Ana	alyzed: 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:	E310123-0	4	Prepared: 1	0/19/23 Ana	alyzed: 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:	E310123-0	4	Prepared: 1	0/19/23 Ana	alyzed: 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			

10.0

15.0

8.00

0.0500

0.0250

ND

ND

94.3

94.2

63-131

63-131

70-130

3.85

3.87

20

20



p,m-Xylene Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

9.43

14.1

7.47

ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2342066-BLK1) Prepared: 10/19/23 Analyzed: 10/20/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 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 5.21 104 70-130 5.00 Benzene 0.0250 Ethylbenzene 5.11 0.0250 5.00 102 70-130 5.18 0.0250 5.00 104 70-130 Toluene 103 o-Xylene 5.13 0.0250 5.00 70-130 10.4 10.0 104 70-130 0.0500 p.m-Xvlene 104 70-130 15.5 15.0 Total Xylenes 0.0250 8.00 96.3 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.71 Matrix Spike (2342066-MS1) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23 5.19 0.0250 5.00 ND 54-133 Benzene ND 102 61-133 Ethylbenzene 5.10 0.0250 5.00 Toluene 5.16 0.0250 5.00 ND 103 61-130 ND 102 63-131 5.11 5.00 0.0250 o-Xylene p,m-Xylene 10.4 0.0500 10.0 ND 104 63-131 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.70 8.00 Matrix Spike Dup (2342066-MSD1) Source: E310126-02 Prepared: 10/19/23 Analyzed: 10/20/23 5.39 0.0250 5.00 ND 54-133 3.75 61-133 3.70 5.29 0.0250 5.00 ND 106 20 Ethylbenzene 61-130 Toluene 5.36 0.0250 5.00 ND 107 3.82 20 5.31 5.00 ND 106 63-131 3.84 20 o-Xylene 0.0250 10.8 10.0 ND 108 63-131 3.91 20 p,m-Xylene 0.0500



16.1

7.72

0.0250

15.0

8.00

ND

107

96.5

63-131

70-130

3.89

20

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

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

Carlsbad NM, 88220		Project Manage		lbert Moreno				10/2	25/2023 12:15:12PM
	Non	halogenated	Organics l	by EPA 80	15D - Gl	RO		ı	Analyst: RKS
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
Blank (2342065-BLK1)							Prepared: 1	0/19/23 Anal	yzed: 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: 1	0/19/23 Anal	yzed: 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: 1	0/19/23 Anal	yzed: 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: 1	0/19/23 Anal	yzed: 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			

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno				10	/25/2023 12:15:12P	
	Nonhalogenated Organics by EPA 8015D - GRO							Analyst: RKS		
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes	
Blank (2342066-BLK1)							Prepared: 1	0/19/23 Ana	alyzed: 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: 1	0/19/23 Ana	alyzed: 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:	Source: E310126-02			epared: 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: E31			E310126-0	E310126-02 Prepared: 1			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				

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					10/25/2023 12:15:12P	
	Nonhal	Analyst: KM								
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes	
Blank (2342068-BLK1)							Prepared: 1	0/19/23 A	nalyzed: 10/20/23	
Diesel Range Organics (C10-C28)	ND	25.0								
Dil Range Organics (C28-C36)	ND	50.0								
urrogate: n-Nonane	50.7		50.0		101	50-200				
LCS (2342068-BS1)							Prepared: 1	0/19/23 A	analyzed: 10/20/23	
Diesel Range Organics (C10-C28)	242	25.0	250		96.8	38-132				
urrogate: n-Nonane	49.6		50.0		99.2	50-200				
Matrix Spike (2342068-MS1)				Source:	Source: E310126-05			Prepared: 10/19/23 Analyzed: 10/20/23		
Diesel Range Organics (C10-C28)	291	25.0	250	ND	116	38-132				
urrogate: n-Nonane	57.5		50.0		115	50-200				
Matrix Spike Dup (2342068-MSD1)				Source:	E310126-	05	Prepared: 1	0/19/23 A	nalyzed: 10/20/23	
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	8.64	20		
urrogate: n-Nonane	53.1		50.0		106	50-200				



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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno				1	0/25/2023 12:15:12P
	Nonha	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2342098-BLK1)							Prepared: 10	0/20/23 Ar	nalyzed: 10/21/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	43.9		50.0		87.7	50-200			
LCS (2342098-BS1)							Prepared: 10	0/20/23 Ar	nalyzed: 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	0/20/23 Ar	nalyzed: 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	0/20/23 Ar	nalyzed: 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			

Matrix Spike Dup (2342076-MSD1)

Chloride

1530

## **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr	Project Name: Project Number:	ROSS DRAW UNIT #011 01058-0007	Reported:
Carlsbad NM, 88220	Project Number: Project Manager:	Gilbert Moreno	10/25/2023 12:15:12PM

Anions by EPA 300.0/9056A
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Ana	lyst:	BA
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Prepared: 10/19/23 Analyzed: 10/19/23

20

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2342076-BLK1)							Prepared: 1	0/19/23 Anal	lyzed: 10/19/23
Chloride	ND	20.0							
LCS (2342076-BS1)							Prepared: 1	0/19/23 Ana	lyzed: 10/19/23
Chloride	241	20.0	250		96.5	90-110			
Matrix Spike (2342076-MS1)				Source: 1	Source: E310126-03		Prepared: 1	0/19/23 Ana	lyzed: 10/19/23
Chloride	1600	20.0	250	1290	125	80-120			M1

250

20.0

Source: E310126-03

98.0

80-120

4.27

1290



Matrix Spike Dup (2342077-MSD1)

Chloride

732

#### **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220		Project Name: Project Number: Project Manager	: (	ROSS DRAW U 01058-0007 Gilbert Moreno				10	Reported: 0/25/2023 12:15:12PM
Cuitoud 1111, 00220				300.0/9056					Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2342077-BLK1)							Prepared: 10	0/19/23 An	alyzed: 10/20/23
Chloride	ND	20.0							
LCS (2342077-BS1)							Prepared: 1	0/19/23 An	alyzed: 10/20/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2342077-MS1)				Source:	E310127-0	)1	Prepared: 10	0/19/23 An	alyzed: 10/20/23
Chloride	688	20.0	250	253	174	80-120			Ml

250

20.0

Source: E310127-01

192

80-120

6.32

253

#### 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.



Prepared: 10/19/23 Analyzed: 10/20/23

20

M1

## **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.

Received	
by:	
OCD:	
1/1	
8/2024	
1:45:48	
PM	

Client: V	VPX Energ	y Permia	n, LLC.		Bill To			il and	L	ab U	se On	ly		Г		TA	AT		EPA Pi	rogram
Project:	ROSS DRA	AW UNIT	#011		Attention: Jim Raley		Lab	WO	#		Job	Numb	er _	1D	2D	3D	Sta	andard	CWA	SDWA
Project I	Manager:	Gilbert N	loreno		Address: 5315 Buena Vista Dr.		E3	310	121	0	90	58.	0007				5 d	day TAT		
Address	: 13000 W	/ County	Rd 100		City, State, Zip: Carlsbad, NM, 882	20					Analy	sis an	d Metho	d						RCRA
City, Sta	te, Zip_O	dessa,TX,	79765		Phone: 575-885-7502				I											
Phone: 8	832-541-7	719			Email: jim.raley@dvn.com			þγ		1									State	
Email: D	evon-tear	m@etech	env.com		WO: 21153712			ORO S		1								NM CO	UT AZ	TX
24	W- 10	D 100-20			Incident ID: mNHMP1412241998, nAB171	2951426,		RO/	21	0		0.0		ΣZ		X				
Collecte	d by: Edyt	e Konan			nAB1728553778, nAB1728551205, nAPP22007		7	0/0	/ 80	826	601(	e 30		1				×		
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		GDOC			Remarks	
9:00	10.16.23	S	1		FS07	1	4'							х						
9:10	10.16.23	S	1		FS08	2	4'						100	х						
9:20	10.16.23	S	1		FS09	3	4'							х						
9:30	10.16.23	S	1		FS10	4	4'							х						
9:40	10.16.23	S	1		FS11	5	4'							х						
9:50	10.16.23	S	1		FS12	6	4'							х						
10:00	10.16.23	S	1		FS13	7	4'							х						
10:10	10.16.23	S	1		FS14	8	4'							х						
10:20	10.16.23	S	1		FS15	9	4'							х						
10:30	10.16.23	S	1		FS16	10	4'							х						
Addition	al Instruc	tions:											•							
I, (field sam	pler), attest to	the validity	and authen	ticity of this sample	. I am aware that tampering with or intentionally mis	abelling the san	nple lo	cation			Sampl	es requi	ring thermal	presen	vation m	ust be	receive	d on ice the da	y they are sar	npled or
				may be grounds for				H	3//		receiv	ed pack	ed in ice at a	n avg te	emp abo	ve 0 bu	ut less th	han 6 °C on su	bsequent days	ii.
Relinquish	ed by: (Sign		Date	18/23 12	Received by: (Signature)	W 10.18	I.	Time	218	)	Rec	eived	on ice:		ab U		nly			
	ed by: (Sign	Ture	Date	1823)	Received by: (Signature)	Date 10-18	.23	Time	Boo	)	T1			T2				<u>T3</u>		
	ed by: (Sign:	ature)	Date	18.23 Time	Received by/Signature)  What has the Mar	Date 10-19-	23	8.	: 15	5	AVO	3 Ten	ip °C	4						
6				Aqueous, O - Other	- 000	Containe								nber	glass,	v - V(	OA			p - 1/2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
Note: Sam	ples are disc	arded 30 d	ays after re	sults are reporte	d unless other arrangements are made. Hazard													port for the	e analysis o	f the above
					boratory with this COC. The liability of the labo															



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Client: V	VPX Energ	y Permia	n, LLC.			Bill To				La	ab Us	e On	ly				TA	T		EPA P	rogram
CONTRACTOR OF STREET	ROSS DRA		The state of the s		Attention: Jim			Lab WO# E310126									3D	Standard		CWA	SDWA
Project I	Manager:	Gilbert N	loreno			Buena Vista Dr.		E3	310	120	9	OIC	X58	$\infty$				5 da	y TAT		
Address	13000 W	County	Rd 100		City, State, Zip	: Carlsbad, NM, 8822	20				-			d Metho				3			RCRA
City, Sta	te, Zip_O	dessa,TX,	79765		Phone: 575-88	5-7502															
Phone: 8	332-541-7	719			Email: jim.rale				þ											State	
Email: D	evon-tear	n@etech	env.com		WO: 21153712				ORO									1	MM CO	UT AZ	TX
1						HMP1412241998, nAB17129	51426		3/02	11			0.		ΣN						
Collecte	d by: Edyt	e Konan			W46000	B1728551205, nAPP220072		7	o/DE	/ 802	8260	6010	e 300		1	1	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		верос		GDOC			Remarks	8
10:40	10.16.23	S	1		FS17		11	4'							х						
10:50	10.16.23	S	1		FS18		12	4'							х						
11:00	10.16.23	S	1		FS19		13	4'							х						***************************************
11:10	10.16.23	S	1		FS20		14	4'							х			1			
11:20	10.16.23	S	1		FS21		15	4'							х						
11:30	10.16.23	S	1		FS22		10	4'							х						
11:40	10.16.23	S	1		FS23		17	4'							х						
11:50	10.16.23	S	1		FS24		18	4'							х						
12:00	10.16.23	S	1		FS25		19	4'							х						
12:10	10.16.23	S	1		FS26		20	4'							х						
Addition	al Instruc	tions:						111							1						
				OWNERS SERVICE CONTRACTOR OF THE PROPERTY OF T	The strange of the st	g with or intentionally mislal	pelling the sam	ple lo	cation,			- 33							on ice the da		
			Date	may be grounds for	107	ampled by: GN	Inets 6		Time						- 55						Discolate in
1=	ed by: (Sign	<i>(</i> )		18/23 12	CO Received by	all in Order	Date 18	3:2	3	21	0	Rec	eived	on ice:		)/ N	se On	ııy			
100	ed tay: /Sign:	K/W		18.237	1//- 1	(Signature)	Date 10.18	3.2	3 le	300		T1_			<u>T2</u>				Г3		
	ed by: (Sign:		Date	18-23 Time	Hoo Received by	: Agglature) Man	Date 10-19-2	23	8:	15		AVG	Tem	p°C_	4						
			Sludge, A -	Aqueous, O - Other	1000		Containe									glass,	v - VO	Α			
					unless other arrangem	ents are made. Hazardo													ort for the	analysis o	of the above
						The liability of the labora															



ent expense. The report for the analysis of the above

Client: V	/PX Energ	y Permia	n, LLC.			Bill To		Lab Us			se Only				TAT			EPA Program			
Project:	ROSS DRA	W UNIT	#011		Atte	ntion: Jim Raley		Lab WO#			Job	Num	ber	1D 2D 3D		Stan	dard	CWA	SDWA		
Project N	√anager:	Gilbert N	loreno		Add	Address: 5315 Buena Vista Dr.			310	1120	0	1010	SZ	$-\infty07$				5 day	y TAT		
	13000 W				City	State, Zip: Carlsbad, NM, 8822	20							nd Metho	d						RCRA
City, Sta	te, Zip_O	dessa,TX,	79765		Pho	ne: 575-885-7502		1											And the same		
Phone: 8	32-541-7	719			Ema	il: jim.raley@dvn.com			by											State	•
Email: D	evon-tear	n@etech	env.com			21153712			ORO		1							N	м со	UT AZ	TX
1					Incid	dent ID: mNHMP1412241998, nAB17129	951426,		RO/	12			0.0		Σ		~				
Collecte	d by: Edyt	e Konan				728553778, nAB1728551205, nAPP220072		T.	0/0	/ 80	826	6010	e 30		1		¥		×		
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		GDOC			Remarks	000
12:20	10.16.23	S	1			FS27	21	4'							х	10					
12:30	10.16.23	S	1			FS28	00	4'							х						
12.50	10.10.23	3	-			1320	22	-							^						
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A ddist	al Insta	Alama:		L							1	1									
Addition	al Instru	tions:																			
I (field sam	nier) attest t	n the validity	and author	ticity of this sample	I am awaro	that tampering with or intentionally mislal	alling the car	nla la	reation			Samo	les rea	iring thermal	preserv	ation m	ust be re	eceived or	n ice the da	v they are sa	mpled or
100000				may be grounds for	legal action	a Samplad by: Gtt	cining the sall	ibie ic	, cation,					ked in ice at a							
	ed by: (Sign		Date	Time	regai action.	Reseived by (Signature)	Date 16	)	Time		~		200		1	ab Us	e On	lv			
a #	# 0			18123	2/01	Received by: (signature)	10.18	2	4	2/	0	Rec	eive	d on ice:		D/ N		ı y			
	colum	KOW	Date	1823 17	145	Received by: (Signature)	10.18.	2	Time	80	0	<u>T1</u>			<u>T2</u>			I	3		
Relinquish	ed by: (Sign	ature) MV3	bate lo		400	Received by Signature	Date 10.19.2		Time	:15	5	AVO	3 Ter	np°C	1						
		d - Solid, Sg	- Sludge, A -	Aqueous, O - Other				_						ic, ag - am		lass, v	/ - VO	A			million Description
						er arrangements are made. Hazardo													rt for the	analysis o	f the above
						th this COC. The liability of the labora															- Area and a second of the



Page 80 of 457

Printed: 10/19/2023 12:10:56PM

#### **Envirotech Analytical Laboratory**

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	I	Logged In By:	Caitlin Mars
Email:	devon-team@ensolum.com	Due Date:	10/25/23	17:00 (4 day TAT)			
Chain of	Custody (COC)						
	he sample ID match the COC?		Yes				
	he number of samples per sampling site location mat	ch the COC	Yes				
3. Were s	amples dropped off by client or carrier?		Yes	Carrier: Co	ourier		
4. Was th	e COC complete, i.e., signatures, dates/times, reques	sted analyses?	Yes		<del></del>		
5. Were a	all samples received within holding time?	·	Yes				
	Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssic			_		Comment	s/Resolution
	<b>Furn Around Time (TAT)</b>						
6. Did the	e COC indicate standard TAT, or Expedited TAT?		Yes				
Sample (							
	sample cooler received?		Yes				
•	was cooler received in good condition?		Yes				
	e 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				
	ne sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling	e received w/i 15	Yes				
	visible ice, record the temperature. Actual sample	temperature: 4°	<u>L</u>				
	Container 1		3.7				
	queous VOC samples present?		No				
	/OC samples collected in VOA Vials?		NA NA				
	head space less than 6-8 mm (pea sized or less)?		NA				
	a trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers		Yes				
	appropriate volume/weight or number of sample contain	ners collected?	Yes				
Field La	<del></del>	<b></b>					
	field sample labels filled out with the minimum info ample ID?	rmation:	Yes				
	Date/Time Collected?		Yes				
	Collectors name?		Yes				
Sample l	Preservation_						
21. Does	the COC or field labels indicate the samples were pr	eserved?	No				
22. Are s	ample(s) correctly preserved?		NA				
24. Is lab	filteration required and/or requested for dissolved m	netals?	No				
Multipha	ase Sample Matrix						
	the sample have more than one phase, i.e., multiphase	se?	No				
	s, does the COC specify which phase(s) is to be analy		NA				
	ract Laboratory		1112				
	amples required to get sent to a subcontract laborator		No				
	amples required to get sent to a subcontract laborator a subcontract laboratory specified by the client and if	-	NA	Cook a coder of T. alex	NI A		
		so who?	NA	Subcontract Lab:	NA		
Client I	<u>nstruction</u>						

Page 40 of 40

Date

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

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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS29 4'	5
FS30 4'	6
FS31 4'	7
FS32 4'	8
FS33 4'	9
FS34 4'	10
FS35 4'	11
FS36 4'	12
FS37 4'	13
FS38 4'	14
FS39 4'	15
FS40 4'	16
QC Summary Data	17
QC - Volatile Organics by EPA 8021B	17
QC - Nonhalogenated Organics by EPA 8015D - GRO	18
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	19
QC - Anions by EPA 300.0/9056A	20
Definitions and Notes	21
Chain of Custody etc.	22

## Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
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.

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

Notes Batch: 2344026
Batch: 2344026
Batch: 2344026
Batch: 2344044
Batch: 2344079
_



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				
		Reporting				
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	alyst: 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	
o,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	Ana	alyst: 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	Ana	alyst: 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	Ana	alyst: BA		Batch: 2344079
Chloride	37.9	20.0	1	11/02/23	11/03/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2344079
Chloride	262	20.0	1	11/02/23	11/03/23	



Chloride

# **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				
		Reporting				
Analyte	Result	Limit	Diluti	ion Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	A	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	A	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	A	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	А	analyst: BA		Batch: 2344079

20.0

506

11/02/23

11/03/23



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							
Reporting							
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2344079	
Chloride	503	20.0	1	11/02/23	11/03/23		



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

		E310270-00				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	
o,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	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2344079
Chloride	472	20.0	1	11/02/23	11/03/23	



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

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2344079
Chloride	1430	20.0	1	11/02/23	11/03/23	



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							
Reporting							
Analyte	Result	Limit	Dilutio	n Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2344079	
Chloride	5220	100	5	11/02/23	11/03/23		



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							
Reporting							
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	Analy	st: 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	Analy	st: 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	Analy	st: 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				
		Reporting				
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2344079
Chloride	281	20.0	1	11/02/23	11/03/23	



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'

0296	

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	Analy	st: 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	Analy	st: 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	Analy	st: BA		Batch: 2344079
-	3340	400	20	11/02/23	11/03/23	



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

	Reporting				
Result	Limit	Dilutio	on Prepared	Analyzed	Notes
mg/kg	mg/kg	Ar	nalyst: RKS		Batch: 2344026
ND	0.0250	1	10/31/23	11/01/23	
ND	0.0250	1	10/31/23	11/01/23	
ND	0.0250	1	10/31/23	11/01/23	
ND	0.0250	1	10/31/23	11/01/23	
ND	0.0500	1	10/31/23	11/01/23	
ND	0.0250	1	10/31/23	11/01/23	
	94.7 %	70-130	10/31/23	11/01/23	
mg/kg	mg/kg	Ar	nalyst: RKS		Batch: 2344026
ND	20.0	1	10/31/23	11/01/23	
	89.6 %	70-130	10/31/23	11/01/23	
mg/kg	mg/kg	Ar	nalyst: KM		Batch: 2344044
ND	25.0	1	11/01/23	11/02/23	
ND	50.0	1	11/01/23	11/02/23	
	91.6 %	50-200	11/01/23	11/02/23	
mg/kg	mg/kg	Ar	nalyst: BA		Batch: 2344079
3070	100	5	11/02/23	11/03/23	_
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           MD         0.0250           MD         20.0250           89.6 %         mg/kg           MD         25.0           ND         50.0           91.6 %         mg/kg           mg/kg         mg/kg	Result         Limit         Dilution           mg/kg         mg/kg         Ar           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         0.0250         1           MD         20.0250         1           Mg/kg         mg/kg         Ar           ND         20.0         1           89.6 %         70-130           mg/kg         mg/kg         Ar           ND         25.0         1           ND         50.0         1           91.6 %         50-200           mg/kg         mg/kg         Ar	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/31/23           ND         0.0250         1         10/31/23           ND         0.0250         1         10/31/23           ND         0.0500         1         10/31/23           ND         0.0250         1         10/31/23           ND         0.0250         1         10/31/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/31/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         11/01/23           ND         50.0         1         11/01/23           MD         50.0         1         11/01/23           Mg/kg         mg/kg         Analyst: KM	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/31/23         11/01/23           ND         0.0250         1         10/31/23         11/01/23           ND         0.0250         1         10/31/23         11/01/23           ND         0.0500         1         10/31/23         11/01/23           ND         0.0250         1         10/31/23         11/01/23           ND         0.0250         1         10/31/23         11/01/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/31/23         11/01/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/31/23         11/01/23           Mg/kg         mg/kg         Analyst: KM           ND         25.0         1         11/01/23         11/02/23           ND         50.0         1         11/01/23         11/02/23           ND         50.0         1         11/01/23         11/02/23           Mg/kg         mg/kg



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344026-BLK1) Prepared: 10/31/23 Analyzed: 10/31/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 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 4.60 92.0 70-130 5.00 Benzene 0.0250 Ethylbenzene 4.74 0.0250 5.00 94.8 70-130 4.83 0.0250 5.00 96.6 70-130 Toluene 97.9 o-Xylene 4.89 0.0250 5.00 70-130 9.78 10.0 97.8 70-130 0.0500 p.m-Xvlene 97.9 70-130 14.7 15.0 Total Xylenes 0.0250 8.00 101 70-130 Surrogate: 4-Bromochlorobenzene-PID 8.10 Matrix Spike (2344026-MS1) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23 4.57 0.0250 5.00 ND 91.4 54-133 Benzene ND 94.2 61-133 Ethylbenzene 4.71 0.0250 5.00 Toluene 4.80 0.0250 5.00 ND 95.9 61-130 4.87 ND 97.3 63-131 5.00 0.0250 o-Xylene p,m-Xylene 9.71 0.0500 10.0 ND 97.1 63-131 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 8.21 8.00 Matrix Spike Dup (2344026-MSD1) Source: E310296-03 Prepared: 10/31/23 Analyzed: 10/31/23 4.50 0.0250 5.00 ND 89.9 54-133 1.61 20 61-133 1.02 4.66 0.0250 5.00 ND 93.3 20 Ethylbenzene 61-130 Toluene 4 74 0.0250 5.00 ND 94.8 1.20 20 4.82 5.00 ND 96.3 63-131 1.07 20 o-Xylene 0.0250 0.815 9.63 10.0 ND 96.3 63-131 20 p,m-Xylene 0.0500 Total Xylenes 14.4 0.0250 15.0 ND 96.3 63-131 0.900 20

8.00

102

70-130



Surrogate: 4-Bromochlorobenzene-PID

8.15

WPX Energy - Carlsbad 5315 Buena Vista Dr	Project Name: Project Number:	ROSS DRAW UNIT #011 01058-0007	Reported:
Carlsbad NM, 88220	Project Number: Project Manager:	Gilbert Moreno	11/3/2023 4:40:22PM

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno	•			1	1/3/2023 4:40:22PM
	Nor	nhalogenated	Organics l	by EPA 80	15D - G	RO			Analyst: RKS
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
Blank (2344026-BLK1)							Prepared: 1	.0/31/23 Ana	alyzed: 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: 1	0/31/23 Ana	alyzed: 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: 1	0/31/23 Ana	alyzed: 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: 1	0/31/23 Ana	alyzed: 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			

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					11/3/2023 4:40:22PM
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344044-BLK1)							Prepared: 1	1/01/23	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: 1	1/01/23	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:	E310296-0	01	Prepared: 1	1/01/23	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: 1	1/01/23	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			

WPX Energy - Carlsbad		Project Name:		ROSS DRAW U	JNIT #011				Reported:
5315 Buena Vista Dr Carlsbad NM, 88220		Project Number: Project Manager:		01058-0007 Gilbert Moreno					11/3/2023 4:40:22PM
		Anions	by EPA	300.0/9056	<b>A</b>				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limi	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
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:	E310296-0	2	Prepared:	11/02/23	Analyzed: 11/03/23
Chloride	289	20.0	250	37.9	101	80-120			
Matrix Spike Dup (2344079-MSD1)				Source:	E310296-0	2	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.



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13:10	10.27.23	S	1			FS36	8	4								x				<del> </del>		
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ent expense. The report for the analysis of the above

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#### **Envirotech Analytical Laboratory**

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.

Phone: (\$399.573-4018   Date   Langesoft in 10.0023 1730 (4 day TAT)   Langed in By. Cairtin Vurn Foreign and Control of Processing	Client:	WPX Energy - Carlsbad	Date Received:	10/30/23	08:30	Work Order ID:	E310296
Chain of Custody (COC)  1. Does the sample ID match the COC? 2. Does the number of samples per sampling site location match the COC yes 3. Were samples dopped of IPs ye into the carrier? 4. Was the COC complete, i.e., signatures, datestimes, requested analyses? 5. Were all sample secretived within boding time? 5. Were all sample secretived within boding time? 6. Were all sample secretived within boding time? 7. Was a sample cooler received? 7. Was a sample cooler received? 8. Hyse, was cooler received? 8. Hyse, was cooler received mited, i.e., not broken? 9. Was the sample (s) received inted, i.e., not broken? 9. Was the sample (s) received inted, i.e., not broken? 10. Were custody/security seals intate? 11. Hyse, were custody/security seals intate? 12. Was the sample received in its or required, if samples are received will 5 minutes of sampling 13. If no visible is, exceed the temperature. Actual sample temperature: \$\frac{1}{2}C\$  8ample Container 14. Are aspeace NCC samples collected in the OrV Co analyses? 15. Are VOC samples collected in the orrect containers? 16. Is the head space less than 6-8 mm (pea sized or less)? 17. Was a trip black (Tb) included for VOC analyses? 18. Are non-VOC samples collected in the orrect containers? 19. It was a trip black (Tb) included for VOC analyses? 19. Were fleat sample labels filled out with the minimum information: 19. It was a trip black (Tb) included for VOC analyses? 19. Were fleat sample labels filled out with the minimum information: 20. Were fleat sample labels filled out with the minimum information: 21. Does the COC or field labels indicate the samples were preserved? 22. Are samples (or field labels indicate the samples were preserved? 23. Loos the COC or field labels indicate the samples were preserved? 24. Is label filteration required and or required	Phone:	(539) 573-4018	Date Logged In:	10/30/23	11:25	Logged In By:	Caitlin Mars
Does the sample ID match the COC?   Yes   2. Does the number of sampling site location match the COC   Yes   2. Does the number of sampling site location match the COC   Yes   2. Wes the COC complete, i.e., signatures, dates/times, requested analyses?   Yes   Note: Analysis, such as pH which should be conducted in the field, i.e. 15 minume hold time, are not included in this discussion.   Yes   Note: Analysis, such as pH which should be conducted in the field, i.e. 15 minume hold time, are not included in this discussion.   Yes   Sample Tour Around Time (TAY)	Email:	devon-team@ensolum.com	Due Date:	11/03/23	17:00 (4 day TAT)		
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14. Are aqueous VOC samples present?  15. Are VOC samples collected in VOA Vials?  16. Is the head space less than 6-8 mm (pea sized or less)?  17. Was a trip blank (TB) included for VOC analyses?  18. Are non-VOC samples collected in the correct containers?  19. Is the appropriate volume/weight or number of sample containers collected?  19. Is the appropriate volume/weight or number of sample containers collected?  19. Were field sample labels filled out with the minimum information:  10. Sample ID?  10. Were field sample labels filled out with the minimum information:  10. Sample ID?  11. Does the COC or field labels indicate the samples were preserved?  12. Are sample(s) correctly preserved?  13. Is lab filteration required and/or requested for dissolved metals?  14. Is lab filteration required and/or requested for dissolved metals?  15. Does the Sample Matrix  16. Does the Sample have more than one phase, i.e., multiphase?  17. If yes, does the COC specify which phase(s) is to be analyzed?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Are samples required to get sent to a subcontract laboratory?  18. Subcontract Laboratory Specified by the client and if so who?  18. Subcontract Lab: NA				_			
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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?  19. Is the appropriate volume/weight or number of sample containers collected?  19. Is the appropriate volume/weight or number of sample containers collected?  19. Is the appropriate volume/weight or number of sample containers collected?  19. Is the appropriate volume/weight or number of sample containers collected?  20. Were field sample labels filled out with the minimum information:  Sample ID?  Date/Time Collected?  Collectors name?  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  Multiphase COC specify which phase(s) is to be analyzed?  NA  Subcontract Laboratory  28. Are samples required to get sent to a subcontract laboratory?  No  No  Subcontract Laboratory specified by the client and if so who?  NA  Subcontract Lab: NA							
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22. Are sample(s) correctly preserved?  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	Sample F	Preservation					
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Client Instruction		• •	•		Subcontract Lab: NA		
	Client II	<u>nstruction</u>					
	_						

Date

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: 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

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## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS41 4'	5
FS42 4'	6
FS43 4'	7
FS44 4'	8
QC Summary Data	9
QC - Volatile Organic Compounds by EPA 8260B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

## Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
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'	F310308-04A Soil	10/30/23	11/01/23	Glass Jar. 2 oz.



7	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
4	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

		E310308-01				
Analyte	Result	Reporting Limit	Dilutio	on Prepared	Analyzed	Notes
Allalyte	Result	Lillit	Diluit	on Frepared	Allalyzeu	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Aı	nalyst: 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	Aı	nalyst: 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	Aı	nalyst: BA		Batch: 2344118
Chloride	3260	400	20	11/04/23	11/06/23	_



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/2023 3:15:42PM

#### FS42 4'

#### E310308-02

		Reporting					
Analyte	Result	Limit	Dilut	tion	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Α	Analyst: RK	S		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	11/01/23	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	Α	Analyst: RK	S		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	Α	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
		400	20		11/04/23	11/06/23	



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				
		Reporting				
Analyte	Result	Limit	Dilutio	on Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	A	nalyst: 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	A	nalyst: RKS	st: RKS	
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	Ai	nalyst: 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	A	nalyst: BA		Batch: 2344118
Chloride	1610	400	20	11/04/23	11/06/23	



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/2023 3:15:42PM

#### FS44 4'

#### E310308-04

		Reporting				
Analyte	Result	Limit	Dilutio	on Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	A	nalyst: 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		nalyst: 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	A	nalyst: 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	A	nalyst: BA		Batch: 2344118
			20	11/04/23	11/06/23	



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: Reported: Project Number: 5315 Buena Vista Dr 01058-0007 Carlsbad NM, 88220 Project Manager: Gilbert Moreno 11/7/2023 3:15:42PM **Volatile Organic Compounds by EPA 8260B** Analyst: RKS Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 ND 0.0250 Total Xylenes Surrogate: Bromofluorobenzene 0.523 0.500 105 70-130 Surrogate: 1,2-Dichloroethane-d4 0.508 0.500 102 70-130 0.500 99.6 70-130 Surrogate: Toluene-d8 0.498 LCS (2344042-BS1) Prepared: 11/01/23 Analyzed: 11/02/23 2.43 0.0250 2.50 97.4 70-130 Benzene 2.42 2.50 70-130 96.8 Ethylbenzene 0.0250 2.35 0.0250 2.50 94.0 70-130 2.38 95.4 70-130 0.0250 2.50 o-Xylene 4.68 5.00 93.7 70-130 p,m-Xylene 0.0500 7.07 0.0250 7.50 94.2 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.509 0.500 102 70-130 0.500 100 70-130 Surrogate: 1,2-Dichloroethane-d4 0.502 70-130 Surrogate: Toluene-d8 0.495 0.500 Matrix Spike (2344042-MS1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23 2.40 0.0250 2.50 ND 48-131 45-135 Ethylbenzene 2.39 0.0250 2.50 ND 95.7 ND 92.3 48-130 Toluene 2.31 0.0250 2.50 2.36 0.0250 2.50 ND 94.3 43-135 o-Xylene 4.60 5.00 ND 91.9 43-135 p,m-Xylene 0.0500 Total Xylenes 6.95 0.0250 7.50 ND 92.7 43-135 Surrogate: Bromofluorobenzene 0.513 0.500 103 70-130 0.512 0.500 102 70-130 Surrogate: 1,2-Dichloroethane-d4 0.500 98.2 70-130 0.491 Surrogate: Toluene-d8 Matrix Spike Dup (2344042-MSD1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23 2.42 0.0250 2.50 ND 96.7 48-131 0.685 23 0.0250 2.50 ND 96.4 45-135 0.771 27 Ethylbenzene ND 93.1 48-130 0.885 24 2.33 2.50 Toluene 0.0250 o-Xylene 2.38 0.0250 2.50 ND 95.4 43-135 1.18 27

5.00

7.50

0.500

0.500

0.500

0.0500

0.0250

4.68

7.06

0.513

0.510

0.491

ND

ND

93.5

94.2

103

102

98.2

43-135

43-135

70-130

70-130

70-130



27

27

1.76

1.56

p,m-Xylene

Total Xylenes

Surrogate: Toluene-d8

Surrogate: Bromofluorobenzene

Surrogate: 1,2-Dichloroethane-d4

WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #011Reported:5315 Buena Vista DrProject Number:01058-0007Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/20233:15:42PM

	Non	halogenated	Analyst: RKS						
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344042-BLK1)						]	Prepared: 1	1/01/23 Analy	zed: 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: 1	1/01/23 Analy	zed: 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

Surrogate: 10tuene-as	0.374		0.500		113	/0-130		
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		

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					11/7/2023 3:15:42PM
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: JL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344083-BLK1)							Prepared: 1	1/03/23 A	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: 1	1/03/23 A	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: 1	1/03/23 A	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: 1	1/03/23 A	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			



Chloride

Chloride

Matrix Spike Dup (2344118-MSD1)

M2

M2, R3

Prepared: 11/04/23 Analyzed: 11/06/23

20

### **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr		Project Name: Project Number		OSS DRAW U 1058-0007	JNIT #011				Reported:
Carlsbad NM, 88220		Project Manager	r: G	ilbert Moreno					11/7/2023 3:15:42PM
		Anions	by EPA	300.0/9056	1				Analyst: BA
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
Blank (2344118-BLK1)							Prepared: 1	1/04/23 An	alyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)							Prepared: 1	1/04/23 An	alyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				Source:	E310306-	26	Prepared: 1	1/04/23 An	alyzed: 11/06/23

250

250

200

200

593

593

NR

67.2

Source: E310306-26

80-120

80-120

70.7

363

761

#### 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

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

Did not react with the addition of acid or base.

DNR

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

Phone: 832-541-7719

Sampled

10:00

10:10

10:20

10:30

Collected by: Edyte Konan

Sampled

10.30.23

10.30.23

10.30.23

10.30.23

Client: WPX Energy Permian, LLC.

Project Manager: Gilbert Moreno

Address: 13000 W County Rd 100

City, State, Zip\_Odessa, TX, 79765

Email: Devon-team@etechenv.com

Matrix

S

S

S

S

Containers

1

1

1

1

Sample ID

Project: ROSS DRAW UNIT #011

Lab

Number

2

3

Lab WO#

TPH GRO/DRO/ORO by 8015

4'

4'

4'

BTEX by 802. VOC by 8260

Bill To

Attention: Jim Ralev

Phone: 575-885-7502

FS41

FS42

FS43

FS44

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.

Email: jim.raley@dvn.com

WBS/WO: MM-155117.AL.RNM

Address: 5315 Buena Vista Dr.

City, State, Zip: Carlsbad, NM, 88220

Incident ID: mNHMP1412241998, nAB1712951426.

nAB1728553778, nAB1728551205, nAPP2200728755

**EPA Program** 

**SDWA** 

RCRA

CWA

State

Remarks

NM CO UT AZ TX

2
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Received by OCD: 1/18/2024 1:45:48 PM

			1013112023					
Additional Instructions:								
l, (field sampler), attest to the validity and a	uthenticity of this s	ample. I am aware	that tampering with or intentionally mislabe	lling the sample lo	cation,			ed on ice the day they are sampled or
date or time of collection is considered frau	d and may be grou	nds for legal action.	Sampled by: GM			received packed in ice at ar	avg temp above 0 but less	than 6 °C on subsequent days.
	Date 1013112023	Time	Received by: (Signature) McClllu Cluy	Date 103123	Time 1045	Received on ice:	Lab Use Only	
Relinquished by: (Signature)  Michille Cayla	10-31-23	1545	Received by: (Signature)	Date 10.31.23	113 <sub>0</sub>	<u>T1</u>	<u>T2</u>	<u>T3</u>
Relinquished by: (Signature) 🕖	Date	Time	Received by: (Signature)	Date	Time			
pudden mysso	10.31.23	2400	dacy ods	11/1/23	8:30	AVG Temp °C	1	
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludg			00	Container Typ	e: g - glass, p	poly/plastic, ag - am		
Note: Samples are discarded 30 days af	ter results are re	ported unless oth	er arrangements are made. Hazardous	samples will be	returned to clie	nt or disposed of at the	client expense. The r	eport for the analysis of the above



01058-000.

Analysis and Method

ΣZ

BGDOC

Х

X

X

X

Job Number

Chloride 300.0

TAT

5 day TAT

1D 2D 3D Standard

 $\succeq$ 

GDOC

Lab Use Only

E310308 (3410) 0031

envirotech

envirotech Inc.

Printed: 11/1/2023 3:57:30PM

#### **Envirotech Analytical Laboratory**

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 o	Custody (COC)					
	he sample ID match the COC?		Yes			
	he number of samples per sampling site location mate	the COC	Yes			
	samples dropped off by client or carrier?		Yes	Carrier: Courier		
	ne COC complete, i.e., signatures, dates/times, request	ed analyses?	Yes			
5. Were	all samples received within holding time?  Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssion		Yes		Commen	ts/Resolution
Sample '	<u> Turn Around Time (TAT)</u>					
6. Did th	e COC indicate standard TAT, or Expedited TAT?		Yes			
Sample						
	sample cooler received?		Yes			
8. If yes,	was cooler received in good condition?		Yes			
9. Was th	ne sample(s) received intact, i.e., not broken?		Yes			
10. Were	custody/security seals present?		No			
11. If yes	s, were custody/security seals intact?		NA			
	he sample received on ice? If yes, the recorded temp is 4°C, i Note: Thermal preservation is not required, if samples are minutes of sampling	received w/i 15	Yes			
		emperature: 4°0	<u>C</u>			
	Container 1 (2)		3.7			
	aqueous VOC samples present?		No			
	VOC samples collected in VOA Vials?		NA NA			
	e head space less than 6-8 mm (pea sized or less)?		NA NA			
	a trip blank (TB) included for VOC analyses?		NA			
	non-VOC samples collected in the correct containers?	11 4 - 40	Yes			
	appropriate volume/weight or number of sample containe	ers conecteu?	Yes			
Field La	field sample labels filled out with the minimum infor	mation				
	Sample ID?	mation.	Yes			
	Date/Time Collected?		Yes			
(	Collectors name?		Yes			
Sample	<u>Preservation</u>					
21. Does	the COC or field labels indicate the samples were pre-	eserved?	No			
	sample(s) correctly preserved?		NA			
24. Is lab	o filteration required and/or requested for dissolved me	etals?	No			
Multiph	ase Sample Matrix					
26. Does	the sample have more than one phase, i.e., multiphase	e?	No			
27. If ye	s, does the COC specify which phase(s) is to be analyzed	zed?	NA			
Subcont	ract Laboratory					
	amples required to get sent to a subcontract laborator	y?	No			
29. Was	a subcontract laboratory specified by the client and if	so who?	NA	Subcontract Lab: NA		
Client I	<u>nstruction</u>					
	<del></del>					

Date

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

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

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### **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW01 0-2'	5
SW02 0-2'	6
SW03 0-2'	7
SW04 0-4'	8
SW05 0-4'	9
SW06 0-4'	10
SW07 0-2'	11
SW08 0-4'	12
SW09 0-4'	13
SW10 0-4'	14
QC Summary Data	15
QC - Volatile Organics by EPA 8021B	15
QC - Nonhalogenated Organics by EPA 8015D - GRO	16
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	17
QC - Anions by EPA 300.0/9056A	18
Definitions and Notes	19
Chain of Custody etc.	20

### Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
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.



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

		E310073-01				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: 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	Analy	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	Analy	yst: 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	Analy	yst: BA		Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	



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

		E310073-02				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Allaryte	Kesuit	Limit	Dilution	Trepared	Anaryzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: BA		Batch: 2341076
Chloride	ND	20.0	1	10/12/23	10/13/23	



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				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: 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	Ana	ılyst: BA		Batch: 2341076
Chloride	20.1	20.0	1	10/12/23	10/13/23	



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				
		Reporting				
Analyte	Result	Limit	Dilutio	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: 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	An	alyst: BA		Batch: 2341076
Chloride	23.6	20.0	1	10/12/23	10/13/23	



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

		E310073-06				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Thatye	resur	- Emili		•	7 mary 20a	rotes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2341076
Chloride	20.5	20.0	1	10/12/23	10/13/23	



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

		E3100/3-0/				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Tillalyte	Result	Liiiit	Dilution	Trepared	Maryzea	rotes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	yst: 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	Anal	yst: 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	Anal	yst: BA		Batch: 2341076
Chloride	22.7	20.0	1	10/12/23	10/13/23	



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

		E3100/3-08				
Aughte	Result	Reporting Limit	Dilution	Duomono d	Analyzed	Notes
Analyte	Result	Limit	Dilution	Prepared	Ananyzed	notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	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	Anal	yst: 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	Anal	yst: BA		Batch: 2341076
Chloride	28.3	20.0	1	10/12/23	10/13/23	·



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											
		Reporting									
Analyte	Result	Limit	Dilution	n Prepared	Analyzed	Notes					
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	alyst: 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	Ana	alyst: 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	Ana	alyst: 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	Ana	alyst: BA		Batch: 2341076					
Chloride	30.0	20.0	1	10/12/23	10/13/23						



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

		E3100/3-10				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Analyte	Result	Lillit	Dilution	Frepareu	Allalyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	Ana	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	Ana	lyst: 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	Ana	lyst: BA		Batch: 2341076
Chloride	29.7	20.0	1	10/12/23	10/13/23	



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2341068-BLK1) Prepared: 10/12/23 Analyzed: 10/12/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 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 4.67 93.4 70-130 5.00 Benzene 0.0250 Ethylbenzene 4.61 0.0250 5.00 92.2 70-130 4.66 0.0250 5.00 93.2 70-130 Toluene 93.0 o-Xylene 4.65 0.0250 5.00 70-130 9.43 10.0 94.3 70-130 0.0500 p.m-Xvlene 93.9 70-130 14.1 15.0 Total Xylenes 0.0250 8.00 94.7 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.58 Matrix Spike (2341068-MS1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23 4.42 0.0250 5.00 ND 54-133 Benzene ND 87.4 61-133 Ethylbenzene 4.37 0.0250 5.00 Toluene 4.43 0.0250 5.00 ND 88.6 61-130 4.41 ND 88.3 63-131 5.00 0.0250 o-Xylene p,m-Xylene 8.94 0.0500 10.0 ND 89.4 63-131 13.4 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.57 8.00 Matrix Spike Dup (2341068-MSD1) Source: E310074-02 Prepared: 10/12/23 Analyzed: 10/12/23 4.46 0.0250 5.00 ND 89.1 54-133 0.784 20 61-133 0.970 4.41 0.0250 5.00 ND 88.3 20 Ethylbenzene Toluene 4 46 0.0250 5.00 ND 89.2 61-130 0.636 20 4.46 5.00 ND 89.2 63-131 1.09 20 o-Xylene 0.0250 0.933 9.03 10.0 ND 90.3 63-131 20 p,m-Xylene 0.0500



13.5

7.64

0.0250

15.0

8.00

ND

89.9

95.6

63-131

70-130

0.983

20

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno				1	/3/2024 11:06:06AM
	Non	halogenated		Analyst: RKS					
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
D. 1 (22 (42 (2 D. 174 )								0/10/02	1 1 10/10/20
Blank (2341068-BLK1)							Prepared: 1	0/12/23 Ana	alyzed: 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: 1	0/12/23 Ana	alyzed: 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:	E310074-0	02	Prepared: 1	0/12/23 Ana	alyzed: 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:	E310074-0	02	Prepared: 1	0/12/23 Ana	alyzed: 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			



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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					1/3/2024 11:06:06AN
	Nonhal	logenated Or	ganics by	EPA 8015I	D - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2341066-BLK1)							Prepared: 1	0/12/23	Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	42.0		50.0		84.0	50-200			
LCS (2341066-BS1)							Prepared: 1	0/12/23	Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	209	25.0	250		83.5	38-132			
urrogate: n-Nonane	40.2		50.0		80.4	50-200			
Matrix Spike (2341066-MS1)				Source:	E310070-	04	Prepared: 1	0/12/23	Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	211	25.0	250	ND	84.4	38-132			
urrogate: n-Nonane	37.7		50.0		75.5	50-200			
Matrix Spike Dup (2341066-MSD1)				Source:	E310070-	04	Prepared: 1	0/12/23	Analyzed: 10/12/23
Diesel Range Organics (C10-C28)	206	25.0	250	ND	82.3	38-132	2.54	20	
urrogate: n-Nonane	36.3		50.0		72.5	50-200			



WPX Energy - Carlsbad		Project Name:		ROSS DRAW U	JNIT #011				Reported:
5315 Buena Vista Dr Carlsbad NM, 88220		Project Number: Project Manager:		01058-0007 Gilbert Moreno					1/3/2024 11:06:06AM
		Anions	by EPA	300.0/9056	<b>A</b>				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
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:	E310065-2	1	Prepared:	10/12/23	Analyzed: 10/12/23
Chloride	249	20.0	250	ND	99.4	80-120			
Matrix Spike Dup (2341076-MSD1)				Source:	E310065-2	1	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.



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	Brushy Ga				0.44				1 - 1- 1	WO#			Use Only Job Number				1D 2D 3D					rogram SDW/
					Attention: Jim Raley Address: 5315 Buena Vista Dr.					100					000		20	130	5 day		CWA	3DVV/
	oject Manager: Gilbert Moreno ddress: 13000 W County Rd 100			(C) (C)	, State, Zip: Carlsbad, NM, 8	88220		L	100	21-				nd Meth				Jua	Rental	-	RCRA	
	te, Zip_Oc					ne: 575-885-7502	00220					Τí	ariary	313 01	id Weth	T	Т	Т	-			KCK
			73703			ail: jim.raley@dvn.com				115									1000		State	-
Phone: 832-541-7719 Email: Devon-team@etechenv.com			the same of the sa	: 21153712				)y 8(									N	M CO	UT AZ	TX		
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Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	L	TOTAL TARPONIUM		Lab Number	Depth(ft.)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC		GDOC			Remarks	;
10:00	10.6.23	S	1			SW01			0-2'					0		х	T					
10:10	10.6.23	S	1			SW02		2	0-2'							х						
10:20	10.6.23	S	1			SW03			0-2'							х						
10:30	10.6.23	S	1		SW04			1000	0-4'							х						
10:40	10.6.23	S	1		SW05			5	0-4'							х						
10:50	10.6.23	S	1			SW06		6	0-4'							х						
11:00	10.6.23	S	1		(4)	SW07		7	0-2'							х						
11:10	10.6.23	S	1		<b></b>	SW08		8	0-4'							х						
11:20	10.6.23	S	1	,		SW09		9	0-4'							х						
11:30	10.6.23	S	1			SW10		10	0-4'							х						
ddition	al Instruc	tions:																				
ate or time	of collection	is considere	ed fraud and i	may be grounds for	legal action.	that tampering with or intentionally r Sampled by: GM			e locat	tion,											they are sam sequent days.	
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Project Information
Pross Da
Pross Dr.
Project: Brushy Gatl
Project Manager: Gi
Address: 13000 W C
City, State, Zip_Ode

Chain of Custody

Page1 of1	Received by
m VA	OCD:
RA	1/18/2024
	Received by OCD: 1/18/2024 1:45:48 PM

Pros	SD	mu	linit	#011																	
Client: V	VPX Energ	y Permia	n, LLC.			Bill To			Lab Us				se Only				TAT	T EPA Program		rogram	
Project: Brushy Gathering Facility						Attention: Jim Raley		Lab WO#							1D	2D	3D	Standard	CWA	SDWA	
Project Manager: Gilbert Moreno			The second secon	Address: 5315 Buena Vista Dr.		E:	3100	573		DIC	58	1000				5 day TAT					
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	te, Zip_Od		79765		Phor	Phone: 575-885-7502											Market				
	332-541-7				Emai	l: jim.raley@dvn.com			801									-	State		
Email: D	evon-tear	n@etech	env.com		WO:	WO: 21153712			) by									NM C	UT AZ	TX	
					SOURCE TO THE REAL PROPERTY.	Incident ID: NHMP1412241998,			/ORC												
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10.20	10 6 22	-		The special sec		CWO		0.01										. 6001	~ 10	LIMIL	
10:20	10.6.23	5	1			SW03	3	0-2							X			ome	ct na	meon	
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					3₩04										^			Dan	iple c	ontain	N.
10:40	10.6.23	5	1			SW05	15	0-4							x			10.1-	1.12	cm	
							+											10.19	2.23	an	
10:50	10.6.23	S	1	SW06			10	0-4'							X						
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11:00	10.6.23	S	1			SW07		0-2'							X						
11:10	10.6.23	S	1	LEW THERE		SW08	CT.	0-4							v						
11.10	10.0.25		-			34408	8	0.4							Х						
11:20	10.6.23	S	1			SW09	9	0-4							x						
37 3 11 3							1								^						
11:30	10.6.23	S	1			SW10	10	0-4							x						
Addition	nal Instru	tions:																			
I, (field sam	pler), attest to	the validity	and authent	ticity of this sample	. I am aware t	hat tampering with or intentionally misla	belling the sam	ple loca	tion,	- Ciliamin		Control of the same						elved on ice the	Annual Committee of the	TANKS INCOME.	
date or tim	e of collection	is considere	ed fraud and	may be grounds for	legal action.	Sampled by: GM						receive	ed packe	d in ice at an	avg te	mp abou	e O but le	ess than 6 °C on s	ubsequent days		
						Date						Lab Use Only									
10110123 12:20 Middle Carle							- 1010	1010-22 1220					Received on ice: (Y)/ N								
Relinquished by: (Signature) / Date Time Received by: (Signature)								40	Time												
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	Ira	my	50 10		520	auch Man	10.12.	23	8	- 25	)	AVG	Tem	p°C_	7						
Sample Ma	trix: S - Soil, S	d - Solid, Sg	- Sludge, A - /	Aqueous, O - Other			Containe	r Type	:g-	glass, I	-			-	ber g	lass, v	- VOA				
						er arrangements are made. Hazardo									ent e	pense	. Ther	eport for the	analysis of the	he above	
samples is	applicable	only to tho:	se samples	received by the la	boratory wit	h this COC. The liability of the labora	tory is limited	d to the	amou	unt paid	d for	on the	e repor	rt.							

e. Thereport for the analysis of the above

envirotech of 457

Page 141 of 457

Printed: 10/12/2023 12:15:29PM

#### **Envirotech Analytical Laboratory**

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.

	WPX Energy - Carlsbad	Date Received:	10/12/23 (		Work Order ID: E310073	
Client:	<del>-</del>					
Phone:	· · ·	Date Logged In:	10/11/23 1		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 t	he sample ID match the COC?		No			
2. Does t	he number of samples per sampling site location mate	h the COC	Yes			
3. Were s	samples dropped off by client or carrier?		Yes	Carrier: C	<u>Courier</u>	
4. Was th	e COC complete, i.e., signatures, dates/times, request	ed analyses?	Yes			
5. Were a	all samples received within holding time?  Note: Analysis, such as pH which should be conducted in i.e. 15 minute hold time, are not included in this disucssion.		Yes		Comments/Resolution	
Sample '	Furn Around Time (TAT)	1.				
	e COC indicate standard TAT, or Expedited TAT?		Yes		Project name on sample containers di	id not
Sample (	•				match the project name on COC. Clie	ent
	sample cooler received?		Yes		asked to change the project name on	
	was cooler received in good condition?		Yes		]	ıne
•	ne sample(s) received intact, i.e., not broken?		Yes		COC.	
	custody/security seals present?					
	s, were custody/security seals intact?		No			
-	• •	60+ <b>2</b> 0G	NA			
	ne sample received on ice? If yes, the recorded temp is 4°C, i Note: Thermal preservation is not required, if samples are minutes of sampling	received w/i 15	Yes			
	visible ice, record the temperature. Actual sample t	emperature: 4°0	<u>_</u>			
	Container VOC 1 1 2 2 2		3.7			
	equeous VOC samples present?		No			
	/OC samples collected in VOA Vials?		NA NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	a trip blank (TB) included for VOC analyses?		NA			
	non-VOC samples collected in the correct containers?	una a alla ata d?	Yes			
	appropriate volume/weight or number of sample contained	ers conecteu?	Yes			
Field La	field sample labels filled out with the minimum infor	matian				
	sample ID?	mation.	Yes			
	Date/Time Collected?		Yes			
C	Collectors name?		Yes			
	Preservation the COC or field labels indicate the samples were pre	namiad?	No			
	ample(s) correctly preserved?	serveu?	No NA			
	ofilteration required and/or requested for dissolved me	etale?	No			
		tais:	INU			
	ase Sample Matrix	. 0	2.7			
	the sample have more than one phase, i.e., multiphase		No			
27. II yes	s, does the COC specify which phase(s) is to be analyz	zea?	NA			
	ract Laboratory					
	amples required to get sent to a subcontract laboratory		No			
29. Was a	a subcontract laboratory specified by the client and if	so who?	NA	Subcontract Lab	o: NA	
Client I	<u>nstruction</u>					

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

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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

### **Table of Contents**

Title Page	1				
Cover Page	2				
Table of Contents	3				
Sample Summary	4				
Sample Data	5				
SW11 0-4'	5				
SW12 0-4'	6				
SW13 0-4'	7				
SW14 0-4'	8				
QC Summary Data	9				
QC - Volatile Organics by EPA 8021B	9				
QC - Nonhalogenated Organics by EPA 8015D - GRO	10				
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11				
QC - Anions by EPA 300.0/9056A	12				
Definitions and Notes	13				
Chain of Custody etc.					

## Sample Summary

WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
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.



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

	E310125-01				
Result		Dilution	Prepared	Analyzed	Notes
resur	Ziiiit	Bitation	Trepared	7 mary zea	110103
mg/kg	mg/kg	Analy	st: RKS		Batch: 2342062
ND	0.0250	1	10/19/23	10/19/23	
ND	0.0250	1	10/19/23	10/19/23	
ND	0.0250	1	10/19/23	10/19/23	
ND	0.0250	1	10/19/23	10/19/23	
ND	0.0500	1	10/19/23	10/19/23	
ND	0.0250	1	10/19/23	10/19/23	
	95.1 %	70-130	10/19/23	10/19/23	
mg/kg	mg/kg	Analy	Analyst: RKS		Batch: 2342062
ND	20.0	1	10/19/23	10/19/23	
	89.6 %	70-130	10/19/23	10/19/23	
mg/kg	mg/kg	Analy	st: KM		Batch: 2342064
ND	25.0	1	10/19/23	10/20/23	
ND	50.0	1	10/19/23	10/20/23	
	88.7 %	50-200	10/19/23	10/20/23	
mg/kg	mg/kg	Analy	st: IY		Batch: 2342075
	ND Mg/kg ND	mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           mg/kg         mg/kg           ND         20.0           89.6 %         mg/kg           ND         25.0           ND         50.0           88.7 %	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analys           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         0.0250         1           MD         25.1 %         70-130           mg/kg         mg/kg         Analys           ND         20.0         1           Mg/kg         mg/kg         Analys           ND         25.0         1           ND         50.0         1           88.7 %         50-200	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0500         1         10/19/23           ND         0.0250         1         10/19/23           ND         0.0250         1         10/19/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23           ND         50.0         1         10/19/23           88.7 %         50-200         10/19/23	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/19/23         10/19/23           ND         0.0250         1         10/19/23         10/19/23           ND         0.0250         1         10/19/23         10/19/23           ND         0.0500         1         10/19/23         10/19/23           ND         0.0250         1         10/19/23         10/19/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/19/23         10/19/23           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23         10/20/23           ND         50.0         1         10/19/23



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

		E310123-02				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: 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	Anal	lyst: 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	Anal	yst: 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	Anal	yst: IY		Batch: 2342075
Chloride	86.2	20.0	1	10/19/23	10/19/23	



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

		E310125-03				
Aughte	Result	Reporting Limit	Dilution	Duomono d	A malarga J	Notes
Analyte	Kesult	Limit	Dilution	Prepared	Analyzed	notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: 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	Analy	yst: 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	Analy	yst: 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	Analy	yst: IY		Batch: 2342075
Chloride	104	20.0	1	10/19/23	10/19/23	·



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				
		Reporting				
Analyte	Result	Limit	Dilutio	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: 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	An	alyst: 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	An	alyst: IY		Batch: 2342075
Chloride	90.3	20.0	1	10/19/23	10/19/23	



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2342062-BLK1) Prepared: 10/19/23 Analyzed: 10/19/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 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 4.45 89.1 70-130 5.00 Benzene 0.0250 Ethylbenzene 4.54 0.0250 5.00 90.7 70-130 4.54 0.0250 5.00 90.8 70-130 Toluene 91.5 o-Xylene 4.58 0.0250 5.00 70-130 9.28 10.0 92.8 70-130 0.0500 p.m-Xvlene 92.4 70-130 13.9 15.0 Total Xylenes 0.0250 8.00 93.9 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.51 Matrix Spike (2342062-MS1) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23 4.74 0.0250 5.00 ND 94.8 54-133 Benzene ND 61-133 Ethylbenzene 4.84 0.0250 5.00 96.7 Toluene 4.84 0.0250 5.00 ND 96.9 61-130 ND 97.3 63-131 4.86 5.00 0.0250 o-Xylene p,m-Xylene 9.86 0.0500 10.0 ND 98.6 63-131 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.50 8.00 Matrix Spike Dup (2342062-MSD1) Source: E310122-02 Prepared: 10/19/23 Analyzed: 10/19/23 4.66 0.0250 5.00 ND 93.2 54-133 1.71 95.2 61-133 1.59 4.76 0.0250 5.00 ND 20 Ethylbenzene 61-130 Toluene 4.76 0.0250 5.00 ND 95.1 1.83 20

5.00

10.0

15.0

8.00

0.0250

0.0500

0.0250

ND

ND

ND

95.4

97.0

96.5

93.2

63-131

63-131

63-131

70-130

1.95

1.65

1.75

20

20

20



o-Xylene

p,m-Xylene

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

4.77

9.70

14.5

7.45

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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno				10/	/23/2023 11:48:27A
	Non	Nonhalogenated Organics by EPA 8015D - GRO						Analyst: RKS	
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
Blank (2342062-BLK1)							Prepared: 10	0/19/23 Ana	alyzed: 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	0/19/23 Ana	lyzed: 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: 1	0/19/23 Ana	lyzed: 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:	E310122-0	02	Prepared: 1	0/19/23 Ana	lyzed: 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			



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

Carlsbad NM, 88220		Project Manager	r: Gi	lbert Moreno				1	0/23/2023 11:48:2/A
	Nonha	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2342064-BLK1)							Prepared: 1	0/19/23 Ar	nalyzed: 10/19/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	45.9		50.0		91.7	50-200			
LCS (2342064-BS1)							Prepared: 1	0/19/23 Ar	nalyzed: 10/19/23
Diesel Range Organics (C10-C28)	250	25.0	250		100	38-132			
urrogate: n-Nonane	46.5		50.0		93.0	50-200			
Matrix Spike (2342064-MS1)				Source:	E310122-0	04	Prepared: 1	0/19/23 Ar	nalyzed: 10/19/23
Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
urrogate: n-Nonane	50.4		50.0		101	50-200			
Matrix Spike Dup (2342064-MSD1)				Source:	E310122-	04	Prepared: 1	0/19/23 Ar	nalyzed: 10/19/23
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	2.44	20	
Gurrogate: n-Nonane	49.3		50.0		98.6	50-200			

Chloride

## **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220		Project Name: Project Number: Project Manager:	0	ROSS DRAW U 1058-0007 Gilbert Moreno					<b>Reported:</b> 10/23/2023 11:48:27AM
<u> </u>				300.0/9056 <i>A</i>	<b>\</b>				Analyst: IY
Analyte	Result	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
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:	E310123-0	)5	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:	E310123-0	)5	Prepared:	10/19/23	Analyzed: 10/19/23

250

20.0

80-120

52.3

#### 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**

ſ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
١	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
١	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.



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	ROSS DRA				Attention: Jim	Raley		Lab	WO	‡	n de	Job	Num	ber	1D	2D	3D	Stan	dard	CV	NA	SDWA
Project N	Manager:	Gilbert N	loreno		Address: 5315	Buena Vista Dr.		IE3	310	125	5	OIC	)5R	0007				5 da	y TAT			
	13000 W				City, State, Zip:	: Carlsbad, NM, 8822	0				_	_		nd Metho								RCRA
	te, Zip_O		79765	***	Phone: 575-88	5-7502						T			1	T						
Phone: 8	332-541-7	719			Email: jim.raley	v@dvn.com		1	ρ											Sta	ate	
Email: D	evon-tear	n@etech	env.com		WO: 21153712				ORG									N	м со	UT	AZ	TX
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Collecte	d by: Edyt	e Konan				B1728551205, nAPP2200728		-	IQ/C	802	8260	0109	300		1		¥		×			
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		GDOC			Rem	narks	
12:40	10.16.23	S	1		SW11			0-4							х							
12:50	10.16.23	S	1		SW12		2	0-4							х							
13:00	10.16.23	S	1		SW13		3	0-4							х							
13:10	10.16.23	S	1		SW14		4	0-4							х							
-									_													
					1011815	23												+		-		
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					Berlinden 2001																	
Addition	al Instruc	tions:	R											***************************************								
				ticity of this sample may be grounds for		with or intentionally mislabe	elling the sam	ple lo	cation,			1857		ring thermal	73					337		oled or
- High	ed by: (Sign	1	No l	18123 17		(Signature)	Date 8	23		210	)	Rece	eived	on ice:		ab Us		ly				
MAN	ed by: Sign	Laur	Date	1823 Time	145 Received by:	(Signature)	10.18.	23	Time / g	œ		T1			<u>T2</u>			_ <u>T</u> :	3			
6.	ed by: (Sign	mel	Date	18.23 2	400 Can	Myso Mar	10./9-Z		Time	15	-	AVG	Tem	ıp °C	4							
Sample Mat	rix: S - Soil, S	d - Solid, Sg -	- Sludge, A -	Aqueous, O - Other			Containe					poly/p	olasti	c, ag - an								
Note. Jan	pies are disc	arueu 30 u	ays arter re	suits are reporter	a unless other arrangeme	ents are made. Hazardou							spose	of at the	client	expen	se. T	he repo	rt for the	analy	sis of 1	the above



ent expense. The report for the analysis of the above

Printed: 10/19/2023 12:05:17PM

#### **Envirotech Analytical Laboratory**

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:		17:00 (4 day TAT)		88	
Chain of	Custody (COC)						
1. Does th	ne sample ID match the COC?		Yes				
2. Does th	ne number of samples per sampling site location mat	ch the COC	Yes				
3. Were sa	amples dropped off by client or carrier?		Yes	Carrier: C	ourier		
4. Was the	e COC complete, i.e., signatures, dates/times, reques	ted analyses?	Yes				
5. Were al	Il samples received within holding time?		Yes				
	Note: Analysis, such as pH which should be conducted in					Comment	s/Resolution
Sample T	i.e, 15 minute hold time, are not included in this disucssic	on.		Г		<u>commun</u>	
	Urn Around Time (TAT) COC indicate standard TAT, or Expedited TAT?		Yes				
	•		103				
Sample C	cample cooler received?		Yes				
	was cooler received in good condition?		Yes				
•	e sample(s) received intact, i.e., not broken?						
			Yes				
	custody/security seals present?		No				
•	were custody/security seals intact?		NA				
12. Was the	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling		Yes				
13. If no v	visible ice, record the temperature.  Actual sample	temperature: 4°0	<u>C</u>				
Sample C	Container						
	queous VOC samples present?		No				
15. Are V	OC 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 no	on-VOC samples collected in the correct containers?	•	Yes				
19. Is the a	appropriate volume/weight or number of sample contain	ers collected?	Yes				
Field Lab	<u>oel</u>						
20. Were	field sample labels filled out with the minimum info	rmation:					
	ample ID?		Yes				
	ate/Time Collected?		Yes	-			
_	ollectors name?		Yes				
	' <u>reservation</u> the COC or field labels indicate the samples were pr	osomiod9	No				
	ample(s) correctly preserved?	eserveu?	No NA				
	filteration required and/or requested for dissolved m	retals?	No				
	1		110				
	se Sample Matrix	9	3.7				
	the sample have more than one phase, i.e., multiphase		No				
	does the COC specify which phase(s) is to be analy	zeur	NA				
	act Laboratory						
	imples required to get sent to a subcontract laborator	•	No				
29. Was a	subcontract laboratory specified by the client and if	so who?	NA	Subcontract Lab	: NA		
Client In	<u>istruction</u>						
							_

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

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## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW15 0-4'	5
SW16 0-4'	6
QC Summary Data	7
QC - Volatile Organic Compounds by EPA 8260B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

## Sample Summary

Γ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
ı	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	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.



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	Dilut	tion Prepared	Analyzed	Notes
		mg/kg		Analyst: RKS	111111,200	Batch: 2344030
Volatile Organic Compounds by EPA 8260B	mg/kg			10/31/23	11/02/23	Batch: 2344030
Benzene	ND	0.0250	1			
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 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	A	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	A	Analyst: BA		Batch: 2344059
Chloride	39.3	20.0	1	11/02/23	11/02/23	



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/6/2023 10:43:03AM

#### SW16 0-4' E310293-02

		2010270 02				
Analyte	Result	Reporting Limit	Dilut	ion Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Α	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	A	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	A	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	A	Analyst: BA		Batch: 2344059
Chloride	ND	20.0	1	11/02/23	11/02/23	

ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: 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 Source Reporting Spike Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23 ND 0.0250 Ethylbenzene ND 0.0250 Toluene ND 0.0250 ND 0.0250 o-Xylene ND p,m-Xylene 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 0.500 109 70-130 Surrogate: Toluene-d8 0.547 LCS (2344030-BS1) Prepared: 10/31/23 Analyzed: 11/02/23 2.70 0.0250 2.50 108 70-130 Benzene 2.50 106 70-130 2.64 0.0250 Ethylbenzene 2.61 0.0250 2.50 105 70-130 2.58 2.50 103 70-130 o-Xylene 0.0250 5.20 5.00 104 70-130 p,m-Xylene 0.0500 7.77 0.0250 7.50 104 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.573 0.500 115 70-130 0.500 96.1 70-130 Surrogate: 1,2-Dichloroethane-d4 0.481 Surrogate: Toluene-d8 0.500 70-130 0.550 Matrix Spike (2344030-MS1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23 ND 48-131 2.77 0.0250 2.50 111 ND 45-135 Ethylbenzene 2.75 0.0250 2.50 110 ND 108 48-130 Toluene 2.69 0.0250 2.50

58     0.0250       58     0.0250       64     0.0250       61     0.0250	2.50 2.50 2.50 2.50	ND ND ND ND	107 107 106	48-131 45-135 48-130	3.04 2.56 1.74	23 27 24
54 0.0250 51 0.0250	2.50	ND	106			
0.0250				48-130	1.74	24
****	2.50	ND	104			
			104	43-135	2.59	27
23 0.0500	5.00	ND	105	43-135	2.51	27
34 0.0250	7.50	ND	105	43-135	2.54	27
89	0.500		118	70-130		
81	0.500		96.1	70-130		
50	0.500		110	70-130		
	89	89 0.500 81 0.500	89 0.500 81 0.500	89 0.500 118 81 0.500 96.1	89     0.500     118     70-130       81     0.500     96.1     70-130	89 0.500 118 70-130 81 0.500 96.1 70-130

2.50

5.00

7.50

0.500

0.500

0.500

ND

ND

ND

107

107

107

119

99.8

111

43-135

43-135

43-135

70-130

70-130

70-130

2.68

5.36

8.04

0.595

0.499

0.557

0.0250

0.0500

0.0250

o-Xylene

p,m-Xylene

Total Xylenes

Surrogate: Bromofluorobenzene

Surrogate: Toluene-d8

Surrogate: 1,2-Dichloroethane-d4

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

	Nonl	halogenated (	Organics l	by EPA 801	15D - Gl	RO			Analyst: RKS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes

Analyte	Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344030-BLK1)							Prepared: 10	0/31/23 Analy	vzed: 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	0/31/23 Analy	zed: 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	0/31/23 Analy	zed: 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	0/31/23 Analy	zed: 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			



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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					11/6/2023 10:43:03AN
	Nonhal	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344070-BLK1)							Prepared: 1	1/02/23 A	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: 1	1/02/23 A	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:	E310300-0	08	Prepared: 1	1/02/23 A	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:	E310300-0	08	Prepared: 1	1/02/23 A	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			

Chloride

### **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr		Project Name: Project Number:		ROSS DRAW U 01058-0007	JNIT #011				Reported:
Carlsbad NM, 88220		Project Manager		Gilbert Moreno					11/6/2023 10:43:03AM
		Anions	by EPA	300.0/9056	١				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344059-BLK1)							Prepared: 1	1/02/23 A	Analyzed: 11/02/23
Chloride	ND	20.0							
LCS (2344059-BS1)							Prepared: 1	1/02/23 A	Analyzed: 11/02/23
Chloride	246	20.0	250		98.6	90-110			
Matrix Spike (2344059-MS1)				Source:	E311014-0	)4	Prepared: 1	1/02/23 A	Analyzed: 11/02/23
Chloride	272	20.0	250	ND	109	80-120			
Matrix Spike Dup (2344059-MSD1)				Source:	E311014-0	)4	Prepared: 1	1/02/23 A	Analyzed: 11/02/23

250

20.0

105

80-120

3.32

#### 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.



Gent: W						Bill To				La	b Us	se On	lγ				Ť	AT		EPA P	rogram
Poject: I						ention: Jim Raley		Lab	WO		_	dot				2D	3D	St	andard	CWA	SDWA
	Aanager:					dress: 5315 Buena Vista Dr.		E3	5)02	93	3	Of	158	3.000	7			50	day TAT		
	13000 W					y, State, Zip: Carlsbad, NM, 8822	0		•			Analy	sis aı	nd Meth	lod						RCRA
City, Stat			79765		Ph	one: 575-885-7502										T	T		l		
	32-541-7				<u>Em</u>	ail: jim.raley@dvn.com			<u>ā</u>		i				-	1				State	
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Sime Simpled	Deta Sampled	Matrix	No. of Containers	Sample ID			Lab Number	Ospot(ft.)	TPH GRO/DRO/ORO by 8015	етсх Бу	VOC 5y 8260	Wetzłs 6010	Chloride 300.0		0008		8			Remarks	
<b>3</b> 4:00	10.27.23	s	1			SW15	1	0-4	1						×						
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Reimquish			Date	1	Time /5:00	Received by: (Signature) MICHELLE GONZALES	Date 10-27-	23	Time	500	-	Rec	eivec	l on ice		Lab L	ise O	nly	<del></del>		
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						her arrangements are made. Hazardou	<del></del>								*********				port for the	analysis of	the above
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envirotech Inc.

Printed: 10/30/2023 11:00:28AM

#### **Envirotech Analytical Laboratory**

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)						
	ne sample ID match the COC?		Yes				
	e number of samples per sampling site location ma	tch the COC	Yes				
	amples dropped off by client or carrier?		Yes	Carrier: C	Courier		
	e COC complete, i.e., signatures, dates/times, reque	sted analyses?	Yes				
5. Were al	Il samples received within holding time?  Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssi		Yes			Comment	s/Resolution
Sample T	<u>urn Around Time (TAT)</u>						
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes				
Sample C							
	sample cooler received?		Yes				
8. If yes,	was cooler received in good condition?		Yes				
9. Was the	e 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				
	e sample received on ice? If yes, the recorded temp is 4°C.  Note: Thermal preservation is not required, if samples ar minutes of sampling visible ice, record the temperature. Actual sample	re received w/i 15	Yes				
Sample C			<u>~</u>				
	queous VOC samples present?		No				
	OC samples collected in VOA Vials?		NA				
	head space less than 6-8 mm (pea sized or less)?		NA				
	trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers	9	Yes				
	appropriate volume/weight or number of sample contain		Yes				
Field Lab	· · ·	ners conceted:	103				
	field sample labels filled out with the minimum info	ormation:					
	ample ID?	orringerore.	Yes				
	ate/Time Collected?		Yes	l			
C	ollectors name?		Yes				
Sample P	reservation_						
21. Does	the COC or field labels indicate the samples were p	reserved?	No				
22. Are sa	imple(s) correctly preserved?		NA				
24. Is lab	filteration required and/or requested for dissolved n	netals?	No				
Multipha	se Sample Matrix						
26. Does	the sample have more than one phase, i.e., multipha	ise?	No				
27. If yes,	does the COC specify which phase(s) is to be analy	yzed?	NA				
Subcontr	act Laboratory						
	imples required to get sent to a subcontract laborato	orv?	No				
	subcontract laboratory specified by the client and i	•	NA	Subcontract Lab	: NA		
	struction						
<u>Chent III</u>	istruction						

Date

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

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: 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

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Cell: 775-287-1762

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Envirotech Web Address: www.envirotech-inc.com

## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW17 0-4'	5
QC Summary Data	6
QC - Volatile Organic Compounds by EPA 8260B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

### **Sample Summary**

_				
ſ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
l	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	11/06/23 10:41

Client Sample ID	Lab Sample ID Matri	x Sampled	Received	Container
SW17 0-4'	E310292-01A Soil	10/27/23	10/30/23	Glass Jar, 2 oz.



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

		E010272 01					
Analyte	Result	Reporting Limit		ution	Prepared	Analyzed	Notes
Analyte	Result	Limit	Dii	ution	Frepared	Allalyzed	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	<u> </u>	1	11/02/23	11/02/23	



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: Reported: Project Number: 5315 Buena Vista Dr 01058-0007 Carlsbad NM, 88220 Project Manager: Gilbert Moreno 11/6/2023 10:41:13AM **Volatile Organic Compounds by EPA 8260B** Analyst: RKS Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 ND 0.0250 Total Xylenes Surrogate: Bromofluorobenzene 0.580 0.500 116 70-130 Surrogate: 1,2-Dichloroethane-d4 0.461 0.500 92.2 70-130 0.500 109 70-130 Surrogate: Toluene-d8 0.547 LCS (2344030-BS1) Prepared: 10/31/23 Analyzed: 11/02/23 2.70 0.0250 2.50 108 70-130 Benzene 2.50 106 70-130 2.64 Ethylbenzene 0.0250 2.61 0.0250 2.50 105 70-130 70-130 2.58 0.0250 2.50 103 o-Xylene 5.20 5.00 104 70-130 p,m-Xylene 0.0500 7.77 0.0250 7.50 104 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.573 0.500 115 70-130 0.500 96.1 70-130 Surrogate: 1,2-Dichloroethane-d4 0.481 70-130 Surrogate: Toluene-d8 0.550 0.500 Matrix Spike (2344030-MS1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23 48-131 2.77 0.0250 2.50 ND 111 45-135 Ethylbenzene 2.75 0.0250 2.50 ND 110 ND 48-130 Toluene 2.69 0.0250 2.50 108 2.68 0.0250 2.50 ND 107 43-135 o-Xylene 5.00 ND 107 43-135 p,m-Xylene 5.36 0.0500 Total Xylenes 8.04 0.0250 7.50 ND 107 43-135 Surrogate: Bromofluorobenzene 0.595 0.500 119 70-130 0.500 99.8 70-130 Surrogate: 1,2-Dichloroethane-d4 0.499 0.500 70-130 0.557 Surrogate: Toluene-d8 Matrix Spike Dup (2344030-MSD1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23 2.68 0.0250 2.50 ND 107 48-131 3.04 23 2.68 0.0250 2.50 ND 45-135 2.56 27 Ethylbenzene ND 48-130 1.74 24 2.64 2.50 106 Toluene 0.0250 o-Xylene 2.61 0.0250 2.50 ND 104 43-135 2.59 27 5.23 5.00 ND 105 43-135 27 2.51 p,m-Xylene 0.0500 27 7.84 0.0250 7.50 ND 105 43-135 2.54 Total Xylenes Surrogate: Bromofluorobenzene 0.589 0.500 118 70-130



0.500

0.500

0.481

0.550

96.1

70-130

70-130

Surrogate: 1,2-Dichloroethane-d4

Surrogate: Toluene-d8

Surrogate: Bromofluorobenzene

Surrogate: Toluene-d8

Surrogate: 1,2-Dichloroethane-d4

## **QC Summary Data**

WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #011Reported:5315 Buena Vista DrProject Number:01058-0007Carlsbad NM, 88220Project Manager:Gilbert Moreno11/6/2023 10:41:13AM

Carlsbad NM, 88220		Project Manager		lbert Moreno				11/6	i/2023 10:41:13AM
	Non	halogenated	Organics	by EPA 80	15D - Gl	RO		A	analyst: RKS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344030-BLK1)							Prepared: 1	0/31/23 Anal	/zed: 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: 1	0/31/23 Anal	zed: 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: 1	0/31/23 Anal	zed: 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: 1	0/31/23 Anal	zed: 11/02/23
Gasoline Range Organics (C6-C10)	57.1	20.0	50.0	ND	114	70-130	3.37	20	

0.500

0.500

0.500

0.576

0.496

0.556

115

99.2

111

70-130

70-130

70-130



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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno				1	1/6/2023 10:41:13AN
	Nonhal	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344044-BLK1)							Prepared: 1	1/01/23 Ar	alyzed: 11/01/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	47.3		50.0		94.5	50-200			
LCS (2344044-BS1)							Prepared: 1	1/01/23 Ar	alyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250		90.6	38-132			
urrogate: n-Nonane	49.5		50.0		98.9	50-200			
Matrix Spike (2344044-MS1)				Source:	E310296-	01	Prepared: 1	1/01/23 Ar	alyzed: 11/01/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.7	38-132			
urrogate: n-Nonane	46.1		50.0		92.3	50-200			
Matrix Spike Dup (2344044-MSD1)				Source:	E310296-0	01	Prepared: 1	1/01/23 Ar	alyzed: 11/01/23
Diesel Range Organics (C10-C28)	227	25.0	250	ND	90.9	38-132	0.813	20	
urrogate: n-Nonane	48.0		50.0		96.0	50-200			



WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220		Project Name: Project Number: Project Manager:	0	OSS DRAW U 1058-0007 Gilbert Moreno	NIT #011				Reported: 11/6/2023 10:41:13AM			
		Anions	by EPA	300.0/9056 <i>A</i>					Analyst: BA			
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limi %				
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:	E311014-0	4	Prepared:	11/02/23	Analyzed: 11/02/23			
Chloride	272	20.0	250	ND	109	80-120						
Matrix Spike Dup (2344059-MSD1)				Source:	E311014-0	4	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.



Quent: W	PX Energy	Permiar	ı, LLC.			Lab Use Only									TAT				EPA P	rogram		
Project: R	OSS DRA	W UNIT #	1011			Attention: Jim Raley		Lab	WO							10	20	3D Standard		andard	CWA	SDWA.
Poject M	lanager: (	ilbert M	oreno			Address: 5315 Buena Vista Dr.		E310292				lok	758	· 000						lay TAT		
<b>M</b> dress:	13000 W	County F	₹d 100			City, State, Zip: Carlsbad, NM, 88220								nd Me								RCRA
ty, State	e, Zip_Od	essa,TX,	79765			hone: 575-885-7502				T	1	Ι ,			T					:	-	
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collected by: Edyte Konan					AB1728553778, nAB1728551205, nAPP2200728		=	Ĕ	ğ	35	8	300.0	1 1	1			¥		×			
Time Sumpled	Date Sampled	Matrix	State of Contains	Sample II	)		Lab Number	Depth(ft.)	TPH GRO/DRO/ORD by 8015	8TEX by 8021	VOC by 12260	Merzels 6010	Chloride			BGD0C		2005			Remarks	
<b>₹</b> 4:20	10.27.23	S	1			SW17	,		<del>                                     </del>	1	✝▔	<del>                                     </del>	<u> </u>	<del>                                     </del>	_				_			
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Addition	al Instruc	tions:																			-	
l, (field samp	der), attest t	the validity	and aut	enucity of this	sample. I am a	ware that tampering with or intentionally mislab	elling the san	ple lo	cation,	<del></del>										on ice the da		pted or
date or time	of collection	ts considere	ed fraud a	nd may be grou	inds for legal a	ction. Sampled by: GM														an 6°C on sub		
Relinquish	ed by: (Sign)	ture)		ate .	Time	Received by: (Signature)	Date		Time			1				La	ıb Üs	e On	ily			
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Sample Matrix: \$ - Soil, Sd - Selid, Sg - Sludge, A - Aqueous, O - Other																				port for the	analysis of	the above

(3

envirotech envirotech environment 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.

Page 181 of 457

Printed: 10/30/2023 10:52:20AM

#### **Envirotech Analytical Laboratory**

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)						
	ne sample ID match the COC?		Yes				
	ne number of samples per sampling site location ma	tch the COC	Yes				
	amples dropped off by client or carrier?		Yes	Carrier: <u>C</u>	Courier		
	e COC complete, i.e., signatures, dates/times, reque	sted analyses?	Yes				
5. Were a	Il samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssi		Yes			<b>Comment</b> :	s/Resolution
Sample T	Curn Around Time (TAT)						
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes				
Sample C	<u>Cooler</u>						
7. Was a s	sample cooler received?		Yes				
8. If yes,	was cooler received in good condition?		Yes				
9. Was the	e 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				
	e sample received on ice? If yes, the recorded temp is 4°C. Note: Thermal preservation is not required, if samples ar minutes of sampling visible ice, record the temperature. Actual sample	e received w/i 15	Yes				
		temperature. 4 v	<u>~</u>				
	Container queous VOC samples present?		No				
	OC samples collected in VOA Vials?		NA				
	head space less than 6-8 mm (pea sized or less)?		NA				
	trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers	9	Yes				
	appropriate volume/weight or number of sample contain		Yes				
Field Lat	· ·	ners conceted:	103				
	field sample labels filled out with the minimum info	ormation:					
	ample ID?	mation.	Yes				
	ate/Time Collected?		Yes				
C	ollectors name?		Yes				
Sample P	reservation_						
21. Does	the COC or field labels indicate the samples were p	reserved?	No				
	ample(s) correctly preserved?		NA				
24. Is lab	filteration required and/or requested for dissolved n	netals?	No				
Multipha	se Sample Matrix						
26. Does	the sample have more than one phase, i.e., multipha	se?	No				
27. If yes,	, does the COC specify which phase(s) is to be analy	yzed?	NA				
Subcontr	act Laboratory						
	amples required to get sent to a subcontract laborato	rv?	No				
	subcontract laboratory specified by the client and i	-	NA	Subcontract Lab	: NA		
	nstruction						
Chent II	isti uction						

Page 12 of 12

Date

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

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whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW18 0-4'	5
SW19 0-4'	6
SW20 0-4'	7
SW21 0-4	8
QC Summary Data	9
QC - Volatile Organic Compounds by EPA 8260B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

## **Sample Summary**

Γ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Donoutoda
ı	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	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.



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

	L510507-01				
Pagult	Reporting	Dibi	tion Prope	arad Analyzad	Notes
Result	Lillit	Dilu	поп гтера	ared Anaryzed	Notes
mg/kg mg/kg Anal		Analyst: RKS	Batch: 2344042		
ND	0.0250	1	11/01	/23 11/02/23	
ND	0.0250	1	11/01	/23 11/02/23	
ND	0.0250	1	11/01	/23 11/02/23	
ND	0.0250	1	11/01	/23 11/02/23	
ND	0.0500	1	11/01	/23 11/02/23	
ND	0.0250	1	11/01	/23 11/02/23	
	104 %	70-130	11/01	11/02/23	
	102 %	70-130	11/01	1/23 11/02/23	
	100 %	70-130	11/01	11/02/23	
mg/kg	mg/kg	1	Analyst: RKS		Batch: 2344042
ND	20.0	1	11/01	/23 11/02/23	
	104 %	70-130	11/01	1/23 11/02/23	
	102 %	70-130	11/01	1/23 11/02/23	
	100 %	70-130	11/01	11/02/23	
mg/kg	mg/kg	ı	Analyst: KM		Batch: 2344103
ND	25.0	1	11/03	11/04/23	
ND	50.0	1	11/03	11/04/23	
	103 %	50-200	11/03	2/23 11/04/23	
mg/kg	mg/kg	I	Analyst: BA		Batch: 2344118
27.1	20.0	1	11/04	11/06/23	
	ND ND ND ND ND ND ND ND ND ND ND ND ND Mg/kg ND Mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           IO2 %         100 %           mg/kg         mg/kg           ND         20.0           104 %         102 %           100 %         100 %           mg/kg         mg/kg           ND         25.0           ND         50.0           103 %         mg/kg	Result         Limit         Dilu           mg/kg         mg/kg           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           102 %         70-130           100 %         70-130           mg/kg         mg/kg           ND         20.0         1           104 %         70-130           102 %         70-130           100 %         70-130           mg/kg         mg/kg           ND         25.0         1           ND         50.0         1           103 %         50-200           mg/kg         mg/kg	Result         Limit         Dilution         Preparation           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         11/01           ND         0.0250         1         11/01           ND         0.0250         1         11/01           ND         0.0500         1         11/01           ND         0.0250         1         11/01           ND         0.0250         1         11/01           102 %         70-130         11/01           102 %         70-130         11/01           100 %         70-130         11/01           104 %         70-130         11/01           102 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %         70-130         11/01           100 %	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         11/01/23         11/02/23           ND         0.0250         1         11/01/23         11/02/23           ND         0.0250         1         11/01/23         11/02/23           ND         0.0500         1         11/01/23         11/02/23           ND         0.0500         1         11/01/23         11/02/23           ND         0.0250         1         11/01/23         11/02/23           ND         0.0250         1         11/01/23         11/02/23           102 %         70-130         11/01/23         11/02/23           102 %         70-130         11/01/23         11/02/23           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         11/01/23         11/02/23           102 %         70-130         11/01/23         11/02/23           100 %         70-130         11/01/23         11/02/23           100 %         70-130         11/01/23         11/02/23           100 %         70-130



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/2023 3:10:23PM

#### SW19 0-4' E310309-02

		E310307-02					
		Reporting					
Analyte	Result	Limit	Dilu	tion	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	1	Analyst: 1	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	1	Analyst: 1	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: 1	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	<u>.                                    </u>	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	1	Analyst: 1	BA		Batch: 2344118
Chloride	26.8	20.0	1		11/04/23	11/06/23	
	****						



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/2023 3:10:23PM

#### SW20 0-4' E310309-03

		E510507-05				
Analyte	Result	Reporting Limit	Dilutio	on Prepared	Analyzed	Notes
Analyte	Result	Limit	Diluti	on Frepared	Anaryzeu	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	A	nalyst: 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	A	nalyst: 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	A	nalyst: 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	A	nalyst: BA		Batch: 2344118
	162		1	11/04/23	11/07/23	•



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/2023 3:10:23PM

#### SW21 0-4 E310309-04

	Reporting					
1.	T * *.	Б.1		D 1		NI 4
esult	Limit	Dilt	ıtion	Prepared	Analyzed	Notes
ıg/kg	mg/kg		Analyst:	RKS		Batch: 2344042
ND	0.0250		1	11/01/23	11/02/23	
ND	0.0250		1	11/01/23	11/02/23	
ND	0.0250		1	11/01/23	11/02/23	
ND	0.0250		1	11/01/23	11/02/23	
ND	0.0500		1	11/01/23	11/02/23	
ND	0.0250		1	11/01/23	11/02/23	
	103 %	70-130		11/01/23	11/02/23	
	101 %	70-130		11/01/23	11/02/23	
	100 %	70-130		11/01/23	11/02/23	
ıg/kg	mg/kg Analyst: RKS			Batch: 2344042		
ND	20.0		1	11/01/23	11/02/23	
	103 %	70-130		11/01/23	11/02/23	
	101 %	70-130		11/01/23	11/02/23	
	100 %	70-130		11/01/23	11/02/23	
ıg/kg	mg/kg		Analyst:	KM		Batch: 2344103
ND	25.0		1	11/03/23	11/04/23	
ND	50.0		1	11/03/23	11/04/23	
	90.7 %	50-200		11/03/23	11/04/23	
	_			D.A		D ( 1. 22/4/110
ıg/kg	mg/kg		Analyst:	BA		Batch: 2344118
	g/kg ND ND ND ND ND ND ND ND ND ND ND ND ND	g/kg mg/kg ND 0.0250 ND 0.0250 ND 0.0250 ND 0.0250 ND 0.0500 ND 0.0500 ND 0.0250  103 % 101 % 100 % g/kg mg/kg ND 20.0  103 % 101 % 100 % g/kg mg/kg ND 25.0 ND 25.0 ND 50.0	g/kg mg/kg ND 0.0250 ND 0.0250 ND 0.0250 ND 0.0250 ND 0.0250 ND 0.0500 ND 0.0250  103 % 70-130 100 % 70-130 101 % 70-130 101 % 70-130 101 % 70-130 101 % 70-130 101 % 70-130 101 % 70-130 100 % 70-130 100 % 70-130 100 % 50.0	g/kg mg/kg Analyst:  ND 0.0250 1  ND 0.0250 1  ND 0.0250 1  ND 0.0250 1  ND 0.0250 1  ND 0.0500 1  ND 0.0250 1  103 % 70-130  101 % 70-130  100 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  101 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130  100 % 70-130	g/kg mg/kg Analyst: RKS  ND 0.0250 1 11/01/23  ND 0.0250 1 11/01/23  ND 0.0250 1 11/01/23  ND 0.0250 1 11/01/23  ND 0.0500 1 11/01/23  ND 0.0500 1 11/01/23  ND 0.0250 1 11/01/23  ND 0.0250 1 11/01/23  103 % 70-130 11/01/23  100 % 70-130 11/01/23  g/kg mg/kg Analyst: RKS  ND 20.0 1 11/01/23  101 % 70-130 11/01/23  101 % 70-130 11/01/23  101 % 70-130 11/01/23  101 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23  100 % 70-130 11/01/23	g/kg mg/kg Analyst: RKS  ND 0.0250 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  ND 0.0500 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  ND 0.0250 1 11/01/23 11/02/23  103 % 70-130 11/01/23 11/02/23  101 % 70-130 11/01/23 11/02/23  100 % 70-130 11/01/23 11/02/23  g/kg mg/kg Analyst: RKS  ND 20.0 1 11/01/23 11/02/23  101 % 70-130 11/01/23 11/02/23  101 % 70-130 11/01/23 11/02/23  100 % 70-130 11/01/23 11/02/23  100 % 70-130 11/01/23 11/02/23  100 % 70-130 11/01/23 11/02/23  100 % 70-130 11/01/23 11/02/23  g/kg mg/kg Analyst: KM  ND 25.0 1 11/03/23 11/04/23  ND 25.0 1 11/03/23 11/04/23  ND 50.0 1 11/03/23 11/04/23



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: Reported: Project Number: 5315 Buena Vista Dr 01058-0007 Carlsbad NM, 88220 Project Manager: Gilbert Moreno 11/7/2023 3:10:23PM **Volatile Organic Compounds by EPA 8260B** Analyst: RKS Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344042-BLK1) Prepared: 11/01/23 Analyzed: 11/02/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 ND 0.0250 Total Xylenes Surrogate: Bromofluorobenzene 0.523 0.500 105 70-130 Surrogate: 1,2-Dichloroethane-d4 0.508 0.500 102 70-130 0.500 99.6 70-130 Surrogate: Toluene-d8 0.498 LCS (2344042-BS1) Prepared: 11/01/23 Analyzed: 11/02/23 2.43 0.0250 2.50 97.4 70-130 Benzene 2.42 2.50 70-130 96.8 Ethylbenzene 0.0250 2.35 0.0250 2.50 94.0 70-130 2.38 95.4 70-130 0.0250 2.50 o-Xylene 4.68 5.00 93.7 70-130 p,m-Xylene 0.0500 7.07 0.0250 7.50 94.2 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.509 0.500 102 70-130 0.500 100 70-130 Surrogate: 1,2-Dichloroethane-d4 0.502 70-130 Surrogate: Toluene-d8 0.495 0.500 Matrix Spike (2344042-MS1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23 2.40 0.0250 2.50 ND 48-131 45-135 Ethylbenzene 2.39 0.0250 2.50 ND 95.7 ND 92.3 48-130 Toluene 2.31 0.0250 2.50 2.36 0.0250 2.50 ND 94.3 43-135 o-Xylene 4.60 5.00 ND 91.9 43-135 p,m-Xylene 0.0500 Total Xylenes 6.95 0.0250 7.50 ND 92.7 43-135 Surrogate: Bromofluorobenzene 0.513 0.500 103 70-130 0.512 0.500 102 70-130 Surrogate: 1,2-Dichloroethane-d4 0.500 98.2 70-130 0.491 Surrogate: Toluene-d8 Matrix Spike Dup (2344042-MSD1) Source: E310305-23 Prepared: 11/01/23 Analyzed: 11/02/23 2.42 0.0250 2.50 ND 96.7 48-131 0.685 23 0.0250 2.50 ND 96.4 45-135 0.771 27 Ethylbenzene

ND

ND

ND

ND

2.50

2.50

5.00

7.50

0.500

0.500

0.500

0.0250

0.0250

0.0500

0.0250

93.1

95.4

93.5

94.2

103

102

98.2

48-130

43-135

43-135

43-135

70-130

70-130

70-130

0.885

1.18

1.76

1.56

24

27

27

27



Toluene

o-Xylene

p,m-Xylene

Total Xylenes

Surrogate: Toluene-d8

Surrogate: Bromofluorobenzene

Surrogate: 1,2-Dichloroethane-d4

2.33

2.38

4.68

7.06

0.513

0.510

0.491

WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #011Reported:5315 Buena Vista DrProject Number:01058-0007Carlsbad NM, 88220Project Manager:Gilbert Moreno11/7/20233:10:23PM

Nonhalogenated Or	ganics by EI	PA 8015D - GRO
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Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes

	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344042-BLK1)							Prepared: 1	1/01/23 Ana	alyzed: 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: 1	1/01/23 Ana	alyzed: 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:	E310305-2	23	Prepared: 1	1/01/23 Ana	alyzed: 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:	E310305-2	23	Prepared: 1	1/01/23 Ana	alyzed: 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			



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

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno					11/7/2023 3:10:23PN
Nonhalogenated Organics by EPA 8015D - DRO/ORO Analyst: KM									
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344103-BLK1)							Prepared: 1	1/03/23 A1	nalyzed: 11/04/23
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.2		50.0		98.3	50-200			
LCS (2344103-BS1)							Prepared: 1	1/03/23 Aı	nalyzed: 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:	E311018-0	)7	Prepared: 1	1/03/23 Aı	nalyzed: 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:	E311018-0	07	Prepared: 1	1/03/23 Aı	nalyzed: 11/04/23
Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132	0.421	20	
Gurrogate: n-Nonane	53.9		50.0		108	50-200			

Matrix Spike Dup (2344118-MSD1)

Chloride

761

## **QC Summary Data**

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220		Project Name: Project Number: Project Manager	: (	ROSS DRAW U 01058-0007 Gilbert Moreno					<b>Reported:</b> 11/7/2023 3:10:23PM
		Anions	by EPA	300.0/9056 <i>A</i>	<b>\</b>				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344118-BLK1)							Prepared: 1	1/04/23 Ar	nalyzed: 11/06/23
Chloride	ND	20.0							
LCS (2344118-BS1)							Prepared: 1	1/04/23 Ar	nalyzed: 11/06/23
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2344118-MS1)				Source:	E310306-2	26	Prepared: 1	1/04/23 Ar	nalyzed: 11/06/23
Chloride	363	200	250	593	NR	80-120			M2

250

200

Source: E310306-26

67.2

80-120

70.7

593

#### 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.



Prepared: 11/04/23 Analyzed: 11/06/23

20

M2, R3

#### **Definitions and Notes**

ſ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	
l	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	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. Analyte NOT DETECTED at or above the reporting limit ND NR Not Reported RPD Relative Percent Difference DNI Did Not Ignite

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

Did not react with the addition of acid or base.

DNR

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

Phone: 832-541-7719

Time

Sampled

10:40

10:50

11:00

11:10

Collected by: Edyte Konan

Date

Sampled

10.30.23

10.30.23

10.30.23

10.30.23

Additional Instructions:

Client: WPX Energy Permian, LLC.

Project Manager: Gilbert Moreno

Address: 13000 W County Rd 100

City, State, Zip Odessa, TX, 79765

Email: Devon-team@etechenv.com

Matrix

S

S

S

S

No. of

Containers

1

1

1

1

date or time of collection is considered fraud and may be grounds for legal action.

Sample ID

Project: ROSS DRAW UNIT #011

Lab WO#

TPH GRO/DRO/ORO by 8015

Depth(ft.)

0-4

0-4

0-4

0-4

Lab

Number

2

3

BTEX by 8021 VOC by 8260 Metals 6010

Bill To

Attention: Jim Raley

Phone: 575-885-7502

SW18

SW19

SW20

SW21

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location,

Email: jim.raley@dvn.com

WBS/WO: MM-155117.AL.RNM

1013112023

Sampled by: GM

Address: 5315 Buena Vista Dr.

City, State, Zip: Carlsbad, NM, 88220

Incident ID: mNHMP1412241998, nAB1712951426,

nAB1728553778, nAB1728551205, nAPP2200728755

**EPA Program** 

SDWA

**RCRA** 

CWA

State

Remarks

NM CO UT AZ TX

TAT

5 day TAT

1D 2D 3D Standard

X

GDOC

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.

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Received by OCD: 1/18/2024 1:45:48 PM

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date Time	Lab Use Only
tight	10/3/12023		Michelle Cearle	10-31-23 1045	Received on ice: (Y) N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date Time	
Michelle Courte	103123	15.42	1 from misso	in.31.23 1730	T1 T2 T3
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date Time	
hoben misso	10.31.23	2400	down Pac	11/1/23 8:30	AVG Temp °C —
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludg	ge, A - Aqueous, O -	Other	6	Container Type: g - glass, p	- poly/plastic, ag - amber glass, v - VOA
			ther arrangements are made. Hazardo with this COC. The liability of the labora		ent or disposed of at the client expense. The report for the analysis of the above
The state of the s	inpres received by	the laboratory i	men end ede. The hability of the labora	tory is minica to the amount paid	Tor on the report.



01058-0007

Analysis and Method

Σ

BGDOC

X

X

X

Х

Job Number

Chloride 300.0

Lab Use Only

F310309 13-1108-049-

Isposed of at the client expense. The report for the analysis of the above the report.

Page 195 of the above the report.

Page 196 of 457

envirotech Inc.

Printed: 11/1/2023 4:00:08PM

#### **Envirotech Analytical Laboratory**

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 0	8:30	Work Order ID:	E310309
Phone:	(539) 573-4018	Date Logged In:	10/31/23 1	5:20	Logged In By:	Lacey Rodgers
Email:	devon-team@ensolum.com	Due Date:	11/07/23 1	7:00 (4 day TAT)		
Chain of	Custody (COC)					
1. Does th	ne sample ID match the COC?		Yes			
	ne number of samples per sampling site location ma	tch the COC	Yes			
	amples dropped off by client or carrier?		Yes	Carrier: Courier		
4. Was the	e COC complete, i.e., signatures, dates/times, reque	sted analyses?	Yes			
5. Were a	Il samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssi		Yes		<u>Comment</u>	ts/Resolution
Sample T	urn Around Time (TAT)					
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes			
Sample C	<u>Cooler</u>					
7. Was a s	sample cooler received?		Yes			
8. If yes,	was cooler received in good condition?		Yes			
9. Was the	e 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 th	e sample received on ice? If yes, the recorded temp is 4°C.  Note: Thermal preservation is not required, if samples ar minutes of sampling visible ice, record the temperature. Actual sample	re received w/i 15	Yes			
Sample C		- I	_			
	queous VOC samples present?		No			
	OC samples collected in VOA Vials?		NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	trip blank (TB) included for VOC analyses?		NA			
	on-VOC samples collected in the correct containers	9	Yes			
	appropriate volume/weight or number of sample contain		Yes			
Field Lat	•	nois conceica.	105			
	field sample labels filled out with the minimum info	ormation:				
	ample ID?	ormation.	Yes			
	ate/Time Collected?		Yes			
C	ollectors name?		Yes			
Sample P	<u>reservation</u>					
21. Does	the COC or field labels indicate the samples were p	reserved?	No			
22. Are sa	ample(s) correctly preserved?		NA			
24. Is lab	filteration required and/or requested for dissolved n	netals?	No			
Multipha	se Sample Matrix					
26. Does	the sample have more than one phase, i.e., multipha	ise?	No			
	, does the COC specify which phase(s) is to be analy		NA			
Subcontr	act Laboratory					
	amples required to get sent to a subcontract laborato	rv?	No			
	subcontract laboratory specified by the client and i	•		Subcontract Lab: NA		
	• •			Subcontract Eur. 1411		
Chent II	nstruction					

Date

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

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

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Cell: 505-947-8222

mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

## **Table of Contents**

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW17 0-4'	5
QC Summary Data	6
QC - Volatile Organic Compounds by EPA 8260B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

#### **Sample Summary**

_				
Γ	WPX Energy - Carlsbad	Project Name:	ROSS DRAW UNIT #011	Reported:
l	5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
l	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.



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #0115315 Buena Vista DrProject Number:01058-0007Reported:Carlsbad NM, 88220Project Manager:Gilbert Moreno11/6/2023 10:41:13AM

#### SW17 0-4' E310292-01

		E310272-01					
Analyte	Result	Reporting Limit	Dib	ution	Prepared	Analyzed	Notes
Analyte	Result	Lillit	Dill	шиоп	Frepared	Allalyzeu	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	mg/kg Analyst: F		nalyst: 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	



ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: Reported: Project Number: 5315 Buena Vista Dr 01058-0007 Carlsbad NM, 88220 Project Manager: Gilbert Moreno 11/6/2023 10:41:13AM **Volatile Organic Compounds by EPA 8260B** Analyst: RKS Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2344030-BLK1) Prepared: 10/31/23 Analyzed: 11/02/23 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 ND 0.0250 Total Xylenes Surrogate: Bromofluorobenzene 0.580 0.500 116 70-130 Surrogate: 1,2-Dichloroethane-d4 0.461 0.500 92.2 70-130 0.500 109 70-130 Surrogate: Toluene-d8 0.547 LCS (2344030-BS1) Prepared: 10/31/23 Analyzed: 11/02/23 2.70 0.0250 2.50 108 70-130 Benzene 2.50 106 70-130 2.64 Ethylbenzene 0.0250 2.61 0.0250 2.50 105 70-130 70-130 2.58 0.0250 2.50 103 o-Xylene 5.20 5.00 104 70-130 p,m-Xylene 0.0500 7.77 0.0250 7.50 104 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.573 0.500 115 70-130 0.500 96.1 70-130 Surrogate: 1,2-Dichloroethane-d4 0.481 70-130 Surrogate: Toluene-d8 0.550 0.500 Matrix Spike (2344030-MS1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23 48-131 2.77 0.0250 2.50 ND 45-135 Ethylbenzene 2.75 0.0250 2.50 ND 110 ND 48-130 Toluene 2.69 0.0250 2.50 108 2.68 0.0250 2.50 ND 107 43-135 o-Xylene 5.00 ND 107 43-135 p,m-Xylene 5.36 0.0500 Total Xylenes 8.04 0.0250 7.50 ND 107 43-135 Surrogate: Bromofluorobenzene 0.595 0.500 119 70-130 0.500 99.8 70-130 Surrogate: 1,2-Dichloroethane-d4 0.499 0.500 70-130 0.557 Surrogate: Toluene-d8 Matrix Spike Dup (2344030-MSD1) Source: E310292-01 Prepared: 10/31/23 Analyzed: 11/02/23 2.68 0.0250 2.50 ND 107 48-131 3.04 23 2.68 0.0250 2.50 ND 45-135 2.56 27 Ethylbenzene ND 48-130 1.74 24 2.64 2.50 106 Toluene 0.0250



2.61

5.23

7.84

0.589

0.481

0.550

0.0250

0.0500

0.0250

2.50

5.00

7.50

0.500

0.500

0.500

ND

ND

ND

104

105

105

118

96.1

43-135

43-135

43-135

70-130

70-130

70-130

2.59

2.51

2.54

27

27

27

o-Xylene

p,m-Xylene

Total Xylenes

Surrogate: Toluene-d8

Surrogate: Bromofluorobenzene

Surrogate: 1,2-Dichloroethane-d4

ROSS DRAW UNIT #011 WPX Energy - Carlsbad Project Name: Reported: 5315 Buena Vista Dr Project Number: 01058-0007 Carlsbad NM, 88220 Project Manager: Gilbert Moreno 11/6/2023 10:41:13AM

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes

	Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2344030-BLK1)							Prepared: 1	0/31/23	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: 1	0/31/23	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: 1	0/31/23	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: 1	0/31/23	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			



WPX Energy - CarlsbadProject Name:ROSS DRAW UNIT #011Reported:5315 Buena Vista DrProject Number:01058-0007Carlsbad NM, 88220Project Manager:Gilbert Moreno11/6/2023 10:41:13AM

Carlsbad NM, 88220		Project Manage	r: Gi	lbert Moreno	1				11/6/2023 10:41:13A				
Nonhalogenated Organics by EPA 8015D - DRO/ORO Analyst: KM													
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit					
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes				
Blank (2344044-BLK1)							Prepared: 1	1/01/23 A1	nalyzed: 11/01/23				
Diesel Range Organics (C10-C28)	ND	25.0											
Dil Range Organics (C28-C36)	ND	50.0											
Surrogate: n-Nonane	47.3		50.0		94.5	50-200							
LCS (2344044-BS1)							Prepared: 1	1/01/23 Aı	nalyzed: 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: 1	1/01/23 A1	nalyzed: 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: 1	1/01/23 Aı	nalyzed: 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 5315 Buena Vista Dr		Project Name: Project Number:		ROSS DRAW U 1058-0007	JNIT #011				Reported:	
Carlsbad NM, 88220		Project Number: Project Manager:		Gilbert Moreno					11/6/2023 10:41:13AM	
		Anions	by EPA	300.0/9056 <i>A</i>	1				Analyst: BA	
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limi		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes	
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	1	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	1	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.



Qient: W	PX Energy	/ Permiar	ı, LLC.			Bill To		Lab Use Only TAT					AT		EPA P	rogram						
Project: R	OSS DRA	W UNIT (	1011		A	ttention: Jim Raley		Lab WO# Job Number _						1D 2D 3D Standard				CWA	SDWA.			
<b>Poject M</b>	lanager: (	Silbert M	oreno			ddress: 5315 Buena Vista Dr.		E310292 01058.0007					ワト					TAT yel				
🔯 dress:	13000 W	County F	Rd 100		C	ity, State, Zip: Carlsbad, NM, 8822	)	Analysis and Metho												RCRA		
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🎨 one: 8	32-541-7	719			E	mail: jim.raley@dvn.com		ŀ	2	İ	1				- 1						State	
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Addition	al instruc	tions:				•																
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			ed fraud an	d may be grou	nds for legal ac	tion. <u>Sampled by: GM</u>						recely	ed pac	ked in ice	at an a	vg ten	np abo	re C but	t less th	ian 6°C on sub	redneut gsår:	
Relinquished by: (Signature) Date Time Received by: (Signature) Date					Date		Time							La	b Ü:	e On	ily					
]				10-27-	<u>23</u>		500		Rec	eive	d on le	e:	P	7/ N	ı							
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<b></b>					]		1		1			AVO	3 Ter	np °C_		<u>L</u>						
				Aqueous, O -			Containe														*** <u> </u>	
Note Sam	ples are disc	arded 30 d	ays after	esults are re	ported unless	other arrangements are made. Hazardou														port for the	anabols of	the above

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envirotech 9 457

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.

Page 207 of 457

Printed: 10/30/2023 10:52:20AM

#### **Envirotech Analytical Laboratory**

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)						
	ne sample ID match the COC?		Yes				
	ne number of samples per sampling site location mat	ch the COC					
	amples dropped off by client or carrier?	on the coc	Yes Yes	<i>a</i>			
	e COC complete, i.e., signatures, dates/times, reques	ted analyses?	Yes	Carrier: C	ourier		
	Il samples received within holding time?	icu anaryses.	Yes				
3. Were a	Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssion		103			Comments	s/Resolution
Sample T	<u> [urn Around Time (TAT)</u>						
6. Did the	e COC indicate standard TAT, or Expedited TAT?		Yes				
Sample C							
	sample cooler received?		Yes				
8. If yes,	was cooler received in good condition?		Yes				
9. Was the	e 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				
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling visible ice, record the temperature. Actual sample	received w/i 15	Yes				
	, ,	temperature. 1	<u> </u>				
	Container queous VOC samples present?		No				
	OC samples collected in VOA Vials?		NA				
	head space less than 6-8 mm (pea sized or less)?		NA				
	trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers?	ı	Yes				
	appropriate volume/weight or number of sample contain		Yes				
Field Lat	· · · · · · · · · · · · · · · · · · ·	ers conected?	105				
•	field sample labels filled out with the minimum info	rmation:					
	ample ID?	imation.	Yes				
	pate/Time Collected?		Yes				
C	ollectors name?		Yes				
Sample P	Preservation_						
21. Does	the COC or field labels indicate the samples were pr	eserved?	No				
22. Are sa	ample(s) correctly preserved?		NA				
24. Is lab	filteration required and/or requested for dissolved m	etals?	No				
Multipha	se Sample Matrix						
26. Does	the sample have more than one phase, i.e., multiphas	se?	No				
27. If yes	, does the COC specify which phase(s) is to be analy	zed?	NA				
Subcontr	act Laboratory						
	amples required to get sent to a subcontract laborator	w9	No				
	subcontract laboratory specified by the client and if	-	NA	Subcontract Lab	N A		
		30 WIIO.	1421	Subcontract Lau	, INA		
Client Ir	<u>nstruction</u>						
L							

# **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)

You don't often get email from scott.rodgers@emnrd.nm.gov. Learn why this is important

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)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following site between October 5<sup>th</sup> through October 6<sup>th</sup>, 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)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 16<sup>th</sup> through October 20<sup>th</sup>, 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



Work: (432) 305-6416 Cell: (281) 777-4152

## Staff Geologist



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)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between October 23<sup>rd</sup> through October 27<sup>th</sup>, 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



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)

You don't often get email from scott.rodgers@emnrd.nm.gov. Learn why this is important

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)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon.

WPX anticipates conducting confirmation soil sampling activities at the following site between October 30<sup>th</sup> through November 3<sup>th</sup>, 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



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

Some people who received this message don't often get email from robert.hamlet@emnrd.nm.gov. Learn why this is important

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

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

#### 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, 20<sup>th</sup>. 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



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 < <u>Jim.Raley@dvn.com</u>>
Sent: Wednesday, June 7, 2023 7:08 AM

To: Hamlet, Robert, EMNRD < Robert. Hamlet@emnrd.nm.gov >

Cc: Devon-Team < <u>Devon-Team@etechenv.com</u>>
Subject: [EXTERNAL] RE: RDU 11 Extension

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

#### 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



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



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# **APPENDIX G**

# Approved Remediation Work Plan

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



Page 223 of 457

#### NM OIL CONSERVATION

<u>District I</u> 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

State of New Mexico **Energy Minerals and Natural Resources** 

> Oil Conservation Division 1220 South St. Francis Dr.

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

MAY 0 2 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

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Address		ena Vista D			7		No. 970 589 074					
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Surface Ow	mer: Fede	ral		Mineral C	)wner:	Federal			API No	. 30- 015-2	24307	
( <u> </u>						<u>.</u>	LDACD			<u> </u>		
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By Whom? I	Carolina Bla					l	Hour: 4/21/2017-					
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E-mail Addr	ess: Karolii	na.blancy@wj	oxenergy.	com		Conditions o	f Approval:		,	Attached	ı 🗀	
Date: 5/2/2017 Phone: 970-589-0743						See at	lached	7		• +		

\* Attach Additional Sheets If Necessary

Date: 5/2/2017

2RP-4197

Phone: 970-589-0743

	Page 224 of 40	<i>57</i>
Incident ID	nAB1712951426	
District RP		
Facility ID		
Application ID		

## Site Assessment/Characterization

t nis information must be provided to the appropriate district office no taler 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 X No				
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes X No				
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	X 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.					

com	amination associated with the release have been determined. Refer to 19.13.29.11 NMAC for specifics.
<u>Ch</u>	aracterization 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
文	Photographs including date and GIS information Topographic/Aerial maps
X	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.

Received by OCD: 1/18/2024 1:45:48 PM State of New Mexico
Page 4 Oil Conservation Division

Page 225 of 457

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: fin Rife	Date:					
email: jim.raley@dvn.com	Telephone: 575-686-7597					
OCD Only						
Received by:	Date:					

1000 Rio Brazos Road, Aztec, NM 87410

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

District III

#### Page 226 of 457

## NM OIL CONSERVATION ARTESIA DISTRICT

District I State of New Mexico
District II Energy Minerals and Natural Resources
Energy Minerals and Natural Resources

OCT **05** 2017

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit I Copy to appropriate District Office in RECEIVED cordance with 19.15.29 NMAC.

** *	TAT 4 # 470 4 1	3 (3)	4 4
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Treicase.	INCLIMATION		ALUUII

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NABIT	12855	3118				OPERA'	ГOR		M Initia	al Report		Final	Report
Name of Co	ompany: R	KI Explorati	on/WP	X Energy 24			rolina Blaney						
Address: 53						Telephone No. 970 589 0743							
Facility Na	me: RDU 1	1			<u> </u>	Facility Typ	e: Well Pad						
Surface Owner: Federal Mineral Owner: I					Jumer: F	Gederal	<del> </del>		API NO	. 30- 015-2	4300	7	
Our race On	1101. 1 0001	<u> </u>		1 William C	<u> </u>	caciai			1 2 3 4 4 4 7 7	7. 50° 075° 20°	4501		
	<del></del>					OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/\	Vest Line	County			
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						OF REL							
Type of Rele	ase: Produc	ed Water		11/2/	UKE	<del></del>	Release: unknow	/n	Volume 8	Recovered 0	hhis		
Source of Re		cu mater					Hour of Occurrence			Hour of Dise			
water transfe						unknown			9/21/2017				
Was Immedi	ate Notice C					If YES, To						_	
L			Yes L	No Not R	equired	NMOCD (	Crystal Weaver &	Michae	l Bratcher,	BLM Shelly	/ Tucl	ker	
By Whom? I							Hour 9/21/17 at 16						
Was a Water	course Reac	ched?	Yes ⊠	No No		If YES, Vo	olume Impacting	the Wate	ercourse.				
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*		<u> </u>							
A174													
N/A													
Describe Cau	use of Proble	em and Remo	dial Actio	n Taken.*									
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				r and tear of the p ion. The total volu									
		er line has be					<b>,</b>						
Describe Are	ea Affected :	and Cleanup.	Action Tai	ken.*									
The water tra	ansfer opera	tions were sto	oped imn	nediately to preven	nt from f	urther release	e of the fluids and	the im	pacted area	was mapped	l with	a Trim	ble to
delineate the	horizontal e	extent of the i	mpacts. T	he impacted area									
remediation	will be base	d on the samp	ling resul	ts.									
I haraby cort	ify that the i	information a	iven above	e is true and comp	lete to th	ne heet of my	knowledge and t	ınderetu	nd that nurs	suppt to NM	OCD	rules ar	nd.
regulations a	di operators	are required t	o report a	nd/or file certain	release no	otifications a	nd perform correct	ctive act	ions for rel	eases which	may	endange	:c ≥r
public health	or the envi	ronment. The	acceptan	ce of a C-141 rep	ort by the	NMOCD n	arked as "Final R	teport" o	ioes not rel	ieve the oper	rator (	of liabili	ity
should their	operations h	ave failed to	adequately	y investigate and i	remediate	e contaminat	ion that pose a thi	reat to g	round wate	r, surface wa	iter, h	iuman h	ealth
				ptance of a C-141	report de	oes not reliev	e the operator of	respons	ability for c	compliance v	7ith a	ny other	
tederai, state	, or local lav	ws and/or reg	uiations.		-		OIL CON	CEDI	7 A TION	מאוניות	147		
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Signature:	racycon	ua amminis	J		}				11				
						Approved by	Environmental S	necialis	1/4 B	I KANTUL SA	ı		
Printed Nam	e: Karolina	Blaney					organd 1	<u> </u>	117 T NO	CONTRACTOR	<del></del>	<b>**</b>	
,		<u>.</u>					101=Lu	7			$\sqrt{\Lambda}$		
Title: Enviro	nmental Sp	ecialist		<u> </u>		Approval Da	te:   <b>D D  </b>	1	Expiration	Date: N	<u>H</u> _		
E-mail Addr	ess: Karolin	a.blaney@wp	xenergy.c	com		Conditions of Approval:  Attached  Attached							
Date: 10/5/	17	Phone	: 970 589	0743		$\mathcal{B}$	e) attacl	ned			Qζ	44	32

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 100 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 <u>division-approved corrective action</u> 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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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 plts, 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>

Thursday, September 21, 2017 4:45 PM Sent: To: Weaver, Crystal, EMNRD; 'Tucker, Shelly' Bratcher, Mike, EMNRD; Raley, Jim Cc: WPX/RKI RDU 11 - initial notification Subject:

#### 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

Page 231 of 457

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

This information must be provided to the appropriate district office no taler than 20 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 X 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 🄀 No
Did the release impact areas <b>not</b> 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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characteristics Deposit Charletter Factor Call Call Call Call Call Call Call Cal	

Com	animation associated with the release have been determined. Refer to 17.13.27.11 (WIAC for specifies.							
<u>Ch</u>	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.

Received by OCD: 1/18/20241:45:48 PM State of New Mexico
Page 4 Oil Conservation Division

Page 232 of 457

Incident ID	nAB1728553778
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	occ does not relieve the operator of liability should their operations have to groundwater, surface water, human health or the environment. In
Printed Name: Jim Raley	Title: Environmental Professional
Signature: fin Rolly	Date:
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

## State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr.

## NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141 Revised April 3, 2017

OCT 0 5 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

District IV 1220 S. St. Fran	icis Dr., Santa	a Fc, NM 87505	i	1220 South St. Francis Dr. Santa Fe, NM 87505		RECEIVED						
Release Notification and Corrective Action												
N 10 1010 10 10						OPERA'			☐ Initia	al Report	П	Final Report
Name of Co	mpany: R	KI Explorati	on / WP	X Energy 24			rolina Blaney					
Address: 53						<del></del>	No. 970 589 0743					
Facility Na	me: RDU	<u> </u>			<u>  I</u>	Facility Typ	e: Well Pad		<del> </del>			
Surface Ow	ner: Feder	al		Mineral C	)wner: I	ederal			API No	. 30- 015-2	24307	
				LOCA	ATION	OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West Line		County		
0	22	26S	30E	660	<u> </u>	FSL	1980	FEL		Eddy		
		,	La	titude: 32.0211	4 Lor	eitude - I	03.86714_ NA	D83				
						_		202				
Type of Rele	ase Produc	od Water		NAI	UKE	OF REL	Release: unknow	'n	Vojume F	Recovered 0	hhls	
Source of Re		ed Water					lour of Occurrence	e	Date and	Hour of Dis		
water transfe Was Immedi		7:7		<del></del>		9/30/17 If YES, To	11th care?		9/30/2017	at 15:00		· · · · · · · · · · · · · · · · · · ·
was immedi	ate Notice (		Yes 🗀	No □ Not R	equired		Crystal Weaver &	Michael	Bratcher,	BLM Sheli	y Tuck	cr
By Whom? I	Karolina Bla	aney		<del></del>		Date and I-	Iour 9/30/17 at 20	:30		· · · · · · · · · · · · · · · · · · ·		
Was a Water		ched?	V N	7 No.		If YES, Vo	olume Impacting t	he Water	course.			
75 337		<u> </u>	Yes 🗵	···					<u></u>			
Ji a Watercor	urse was Im	pacted, Descr	the Fully.	*								
N/A												
Describe Car	ise of Probl	em and Remo	dial Actio	n Taken.*								
The cause of	this spill is	equipment fa	ilure: wear	r and tear of the p	olv line.	The spill occ	curred ~75-100' so	outh of th	e RDU 11	l well pad a	and the	fluids
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 Are	a Affected	and Cleanup	Action Tal	ken.*								
The water tra	ansfer opera	tions were sto	oped imp	nediately to preven	nt from f	urther release	of the fluids and	the impa	acted area	was mappe	d with a	a Trimble to
delineate the	horizontal	extent of the i	mpacts. T	he impacted area	was sam	pled for TPH	, BTEX and Chlo	rides on	10/4/17. F	urther reme	diation	will be
based on the	sampling re	esults.										
							knowledge and u					
regulations a	ll operators For the envi	are required to	o report a: : acceptana	nd/or file certain i ce of a C-141 reni	release no	otifications a	nd perform correct arked as "Final R	tive action	ons for reli ses not reli	eases which leve the one	i may ei erator o	ndanger f Jiability
should their	operations h	nave failed to	adequately	y investigate and i	emediate	e contaminat	ion that pose a thr	eat to gro	ound water	r, surface w	ater, hu	ıman health
		addition, NMC ws and/or regi		ptance of a C-141	report de	oes not reliev	e the operator of	responsit	pility for c	ompliance v	with an	y other
icociai, state							OIL CON	SERV.	ATION	DIVISION	NC	
Signature: Kambina Blaney												
Ann.			Annroyed by	Enviro <b>bigued 8</b>	necialist	[], <sub>]</sub> ,	CARRILLE					
Printed Nam	e: Karolina	Blaney				hphoroa nj	Ziii i i i i i i i i i i i i i i i i i		<u> </u>	CANDOLL SOL	<u></u>	
Title: Enviro	nmental Sa	ocialiet				Approval Da	10K17	E	expiration	Date: NI	Α	
			-//	<del></del>					primitori		1_/	
E-mail Addr	ess: Karolin	a.blaney@wr	xenergy.c	com		Conditions o	f Approval:	. , 1	. (	Attache	į Д	1 1 1
Date: 10/5/	17	Phone	: 970 589	0743			) (99C	atta(	Mec	1 2K	<u> 1</u> 22	1431

<sup>\*</sup> 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 has been assigned. Please refer to this case number in all future correspondence.

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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<sub>6</sub> thru C<sub>36</sub>), 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<sub>6</sub> thru C<sub>36</sub>), 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 spili 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 PMTo:stucker@blm.gov; Weaver, Crystal, EMNRD

Cc:Bratcher, Mike, EMNRD; Raley, JimSubject: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 te of New Mexico Incident ID nAB1728551205

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 X No				
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes 🔀 No				
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	X 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					

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.

Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release

Boring or excavation logs

Topographic/Aerial maps

Photographs including date and GIS information

Laboratory data including chain of custody

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Page 239 of 457

Incident ID	nAB1728551205
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	occ does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In
Printed Name: Jim Raley	Titl: Environmental Professional
Signature: fix Rife	Date:4/4/2022
email:jim.raley@dvn.com	Telephone: 575-686-7597
OCD Only	
Received by:	Date:

Page 240 of 457

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.
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.1 Proposed schedule for remediation (note if remediation plan time	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con-	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around prodeconstruction.	oduction equipment where remediation could cause a major facility
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 complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptar liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local laterals.	ertain release notifications and perform corrective actions for releases ace of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, cceptance of a C-141 report does not relieve the operator of
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: Robert Hamlet	Date:5/4/2022
☐ Approved ☐ Approved with Attached Conditions of A	Approval
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

Responsible Party: WPX Energy Permian, LLC

Contact Name: Jim Raley

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**

OGRID: 246289

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						
			Locatio	n of Release S	Source	
Latitude 32.0	)224991		(NAD 83 in 6	Longitude decimal degrees to 5 dec	: -103.8669281 cimal places)	
Site Name: R	OSS DRAW	V UNIT #011		Site Type	e: Oil Production Site	
Date Release	Discovered	: January 4 <sup>th</sup> . 2022	2	API# (if ap	pplicable) 30-015-24307	
Unit Letter	Section	Township	Range	Соц	unty	
О	22	26S	30E	Eddy		
☐ Crude Oi	1	Volume Release Volume Release	all that apply and atta ed (bbls) 20 ed (bbls) 24		Volume Recovered (bbls) 0  Volume Recovered (bbls) 0	
		Is the concentration of dissolved chloric produced water >10,000 mg/l?		chloride in the	∑ Yes □ No	
Condensa	ate	Volume Released (bbls)			Volume Recovered (bbls)	
☐ Natural C	Gas	Volume Release	ed (Mcf)		Volume Recovered (Mcf)	
Other (describe) Volume/Weight Released (provide units		ide units)	Volume/Weight Recovered (provide units)			
pad surface a	and slightly of turated Soil	off-pad. <i>Volume yds^3 x j</i>	percent porosity		from PRV and impact soils in dirt secondary containment  ads^3)] = bbls of residual fluid in soil  ing fluid	

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FORM C-17-1

Page 2

Oil Conservation Division

State of New Mexico		
State of New Mexico	Incident ID	n/
	metaciii 1D	11/

	Page 242 of 4.	50
Incident ID	nAPP2200728755	
District RP		
Facility ID		
Application ID		

	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	
∑ Yes ☐ No	
If VES, was immediate not	tice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)
	tcher, Emily Hernandez and Robert Hamlet on 1/4/2022
	Initial Response
The responsible pa	arty must undertake the following actions immediately unless they could create a safety hazard that would result in injury
∑ The source of the relea	se has been stopped.
	been secured to protect human health and the environment.
· _ ·	re been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	coverable materials have been removed and managed appropriately.
<u> </u>	above have <u>not</u> been undertaken, explain why:
if all the actions described	above have not been undertaken, explain why.
Per 19.15.29.8 B. (4) NMA	AC 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.
	nation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and equired to report and/or file certain release notifications and perform corrective actions for releases which may endanger
public health or the environme	ent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
	the and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.	a contraction of the contraction of the sponsoning for compliance with any other reaction, state, or recall target
Printed Name: James	Raley Title: Environmental Specialist
,	
Signature:	Kily
Signature:	Date:1/10/2022
email:jim.raley@dvn.c	com Telephone:575-689-7597
OCD O I	
OCD Only	
Received by: Ramona M	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

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 71386

#### CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
	Action Number:
Oklahoma City, OK 73102	71386
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
rmarcus	None	1/10/2022

te of New Mexico

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 X 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 X No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes X No
Did the release impact areas <b>not</b> 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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 wel	ls.
Field data  Post table of soil contaminant concentration 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	

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.

Topographic/Aerial maps

Photographs including date and GIS information

Laboratory data including chain of custody

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Page 245 of 457

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Incident ID	nAPP2200728755
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	oCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Jim Raley	Title: Environmental Professional
Signature: fin Rife	Date:4/4/2022
email: jim.raley@dvn.com	Telephone:575-686-7597
OCD Only	
Received by:	Date:

v Mexico

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.
Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12 Proposed schedule for remediation (note if remediation plan time	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be conjugated	firmed as part of any request for deferral of remediation.
	duction equipment where remediation could cause a major facility
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 rules and regulations all operators are required to report and/or file complicitly should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local laterals.	ertain release notifications and perform corrective actions for releases ce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, ecceptance of a C-141 report does not relieve the operator of
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:
Approved	approval
Signature: 1	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 A. Uger
Ashley Ager, M.S., PG
Program Director, Geologist

Ross Draw Unit #011 Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755 Remediation Work Plan Report April 1, 2022



## **TABLE OF CONTENTS**

1.0	INTF	RODUCTION	1
	1.1	Site Description & Releases Overview1	&2
	1.2	Site Characterization	&3
	1.3	Project Objective	3
2.0	SC	DIL SAMPLING AND INITIAL REMEDIAL ACTIONS	3
	2.1	Delineation Activities	&4
3.0	SOIL	L SAMPLING RESULTS	4
4.0	DEF	FERAL REQUEST4	&5
5.0	REN	MEDIATION WORK PLAN	&6
	5.1	Proposed Sampling	6
	5.2	Proposed Schedule	6
		APPENDICES	
App	endix	x <b>A</b> : Figure 1 – Site Map	
Арр	endix	<b>A:</b> Figure 1 – Site Map Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)	
App	endix	Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and	
Арр	endix	Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)  Figure 2B – Delineation Soil Sample Locations (nAB172855377 and	
App	endix	Figure 2A – Delineation Soil Sample Locations (nAP1712951426 and nAPP2200728755)  Figure 2B – Delineation Soil Sample Locations (nAB172855377 and nAB1728551205)	
	endix endix	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	
Арре		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  CB: Well Record	
Appo	endix	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  Well Record  C: Lithologic Soil Sampling Logs	
Appe Appe	endix endix	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  CB: Well Record  CC: Lithologic Soil Sampling Logs  CD: Photographic Log	

April 1, 2022

Ross Draw Unit #011 Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755 Remediation Work Plan Report



#### 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

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426

nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022



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

Ross Draw Unit #011

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022



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

Ross Draw Unit #011 Incident Number: NHMP141224199

Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755

Remediation Work Plan Report

April 1, 2022



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.

Remediation Work Plan Report

Ross Draw Unit #011 Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755



April 1, 2022

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;

April 1, 2022

Ross Draw Unit #011 Incident Number: NHMP1412241998, nAB1632647780, nAB1712951426 nAB1728553778, nAB1728551205, nAPP2200728755 Remediation Work Plan Report



 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

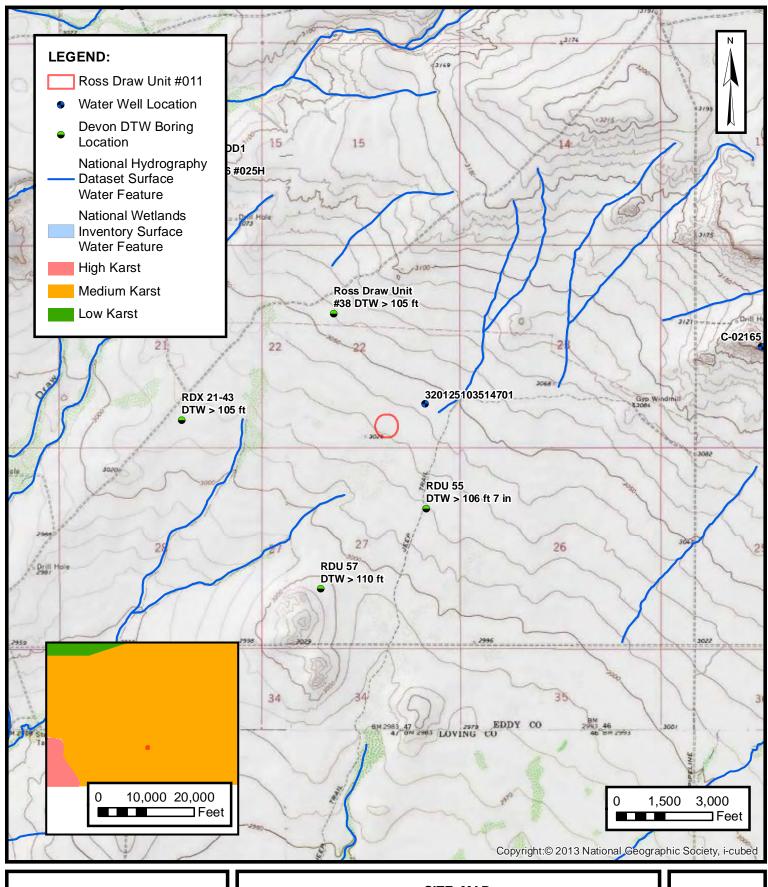
WPX believes the scope of work described above will meet requirements set forth in NMAC 19.15.29.13 and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

Based on the extent of corrective measures, planning and potential third-party operator oversight at the Site, WPX anticipates beginning remediation by **January 2023**.



APPENDIX A

Figures





# SITE MAP

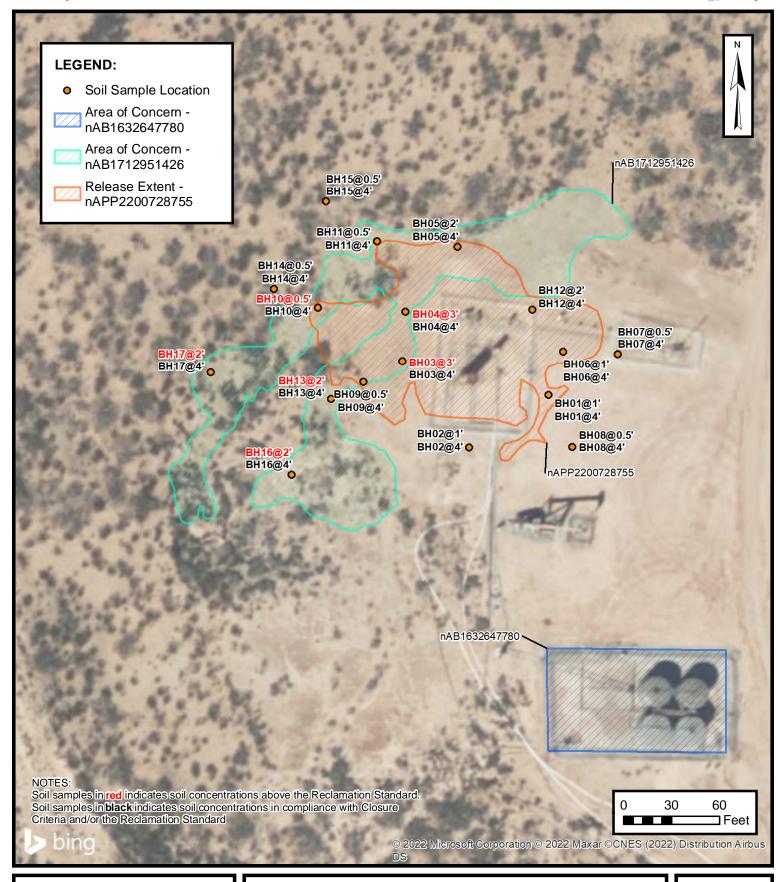
WPX ENERGY PERMIAN, LLC. ROSS DRAW UNIT #011 Eddy County, New Mexico 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE

1

Released to Imaging: 2/8/2024 11250:58 AM





#### **DELINEATION SOIL SAMPLE LOCATION MAP 2A**

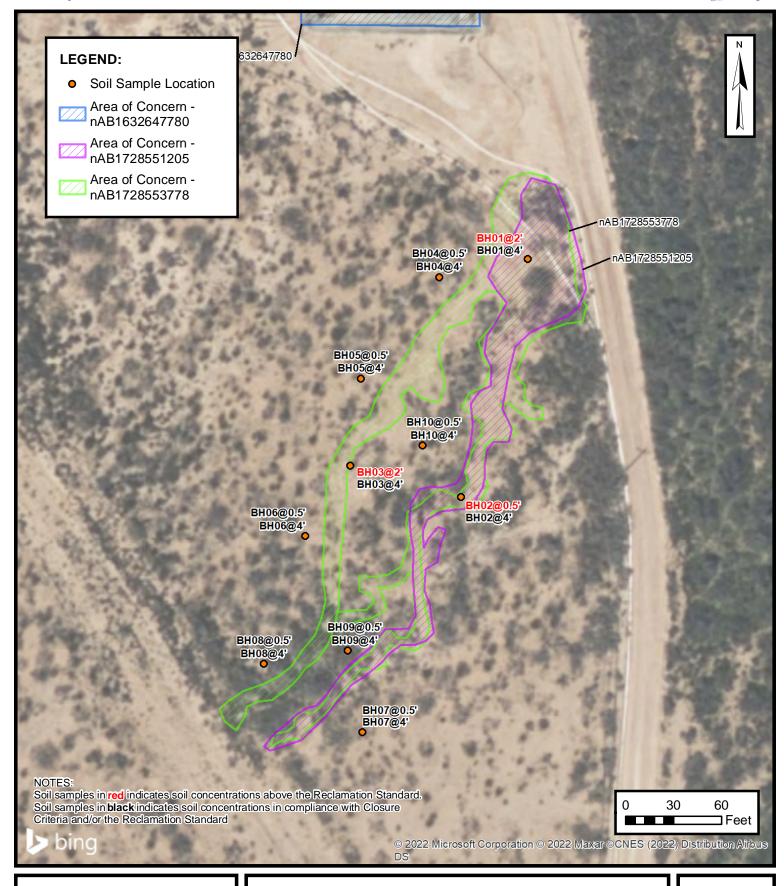
WPX ENERGY PERMIAN, LLC.
ROSS DRAW UNIT #011
Eddy County, New Mexico

32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE

2A





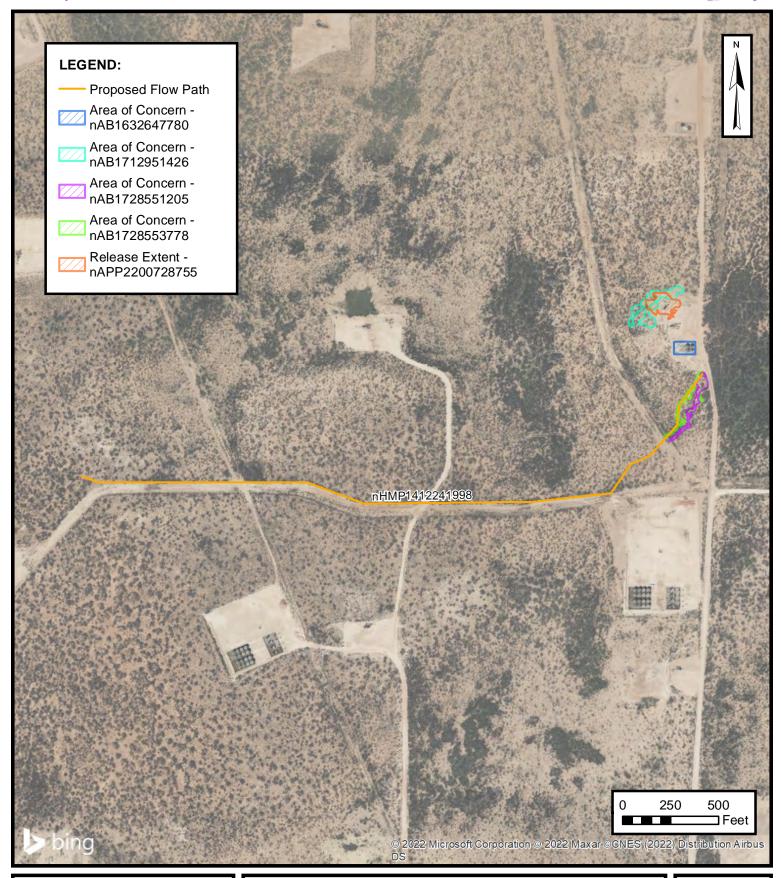
# **DELINEATION SOIL SAMPLE LOCATION MAP 2B**

WPX ENERGY PERMIAN, LLC. ROSS DRAW UNIT #011 Eddy County, New Mexico 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

FIGURE 2B

Released to Imaging: 2/8/2024 11250:58 AM





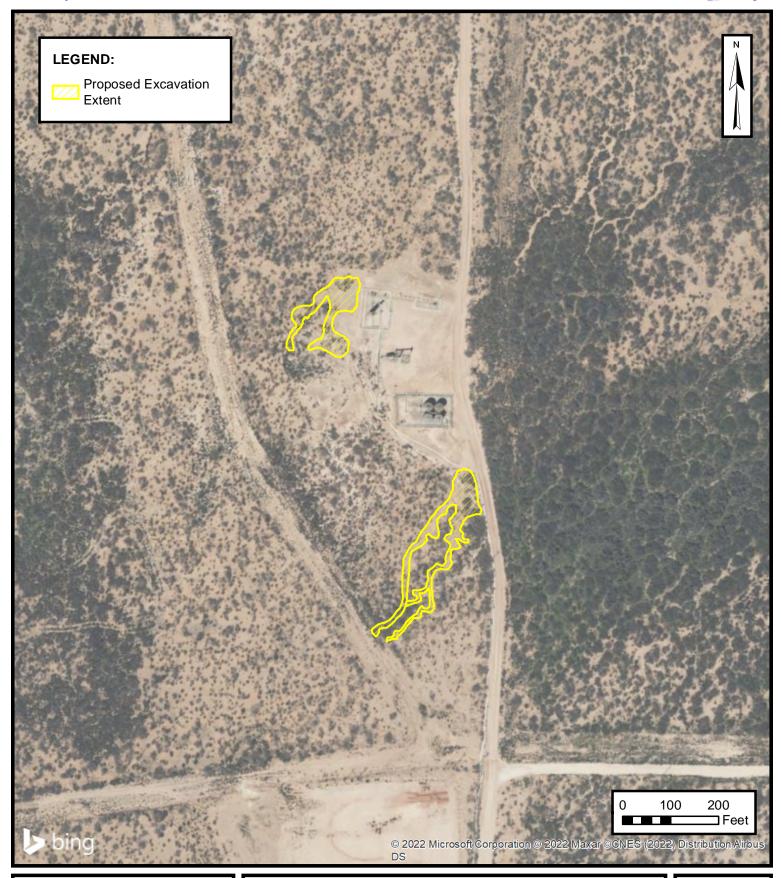
# **AREA OF CONCERN TRACT**

WPX ENERGY PERMIAN, LLC. ROSS DRAW UNIT #011 Eddy County, New Mexico 32.022210° N, 103.867013° W

PROJECT NUMBER: 03A1987006

**FIGURE** 

3





# 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



**APPENDIX B** 

Well Record

		HR					BORI	NG LOG/	MONITORING W	ELL COMPLETION	DIAGRAM	
>				IAN	CE		Boring/Wel	l Number:	W-1	Location: Ross Draw U		
			LUI		NC		Date:	IVI	vv - 1	Client:	mit #33	
	11/	3 U			11.9				/2020	WPX Ene	ergy	
Drilling Me			Sampling !				Logged By:		m DC	Drilled By: Talon LPE		
Gravel Pack	k Type:	У	Gravel Pac	NC k Depth Inte	one erval:		J. Linn, PG  Seal Type: Seal Depth Interval:			Latitude:	re	
	0/20 Sar			3 B	ags		None None			32.0161	65	
Casing Typ PVC	e:	Diameter:		Depth Inter			Boring Tota	al Depth (ft. BC		Longitude:	16	
Screen Type	e:	2-inch Slot:		0-101'7' Diameter:		Interval:	106'7" Well Total Depth (ft. BGS):			-103.863 Depth to Water (ft. BTOC):	DTW Date:	
PVC		0.010-iı	nch		101'7"					>106' 7"	12/16/2020	
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Litholog	y/Remarks	Well Completion	
0 5 10 15	NM	L	D	N	N	NM	SP	NS	_	olored poorly graded n minor silt		
20 25 30	NM	L	D	N	N	NM	SW	NS		ell graded fine sand -		
35 40 45 50 55 60	NM	L	D	N	N	NM	SP	NS	_	n poorly graded fine ninor gravel		
65 70 75 80 85	NM	L	D	N	N	NM	SP	NS	Grey poorly graded fine sand with minor gravel			
90 95	NM	L	D	N	N	NM	SP	NS		ly graded fine sand minor medium sand	$[ \ \ ] \ ]$	
100 106'7"	NM	M	D	N	N	NM	SC	NS		d with moderate silt TD 106'7"		



APPENDIX C

Lithologic Soil Sampling Logs

								Cample Names BU01	Data: 1.25.2022
								Sample Name: BH01	Date: 1-25-2022
		E	N	S	OI	U	M	Site Name: Ross Draw Unit #0 Incident Number: nAPP22007	
_	37								728733 & HAB1712931420
		UTUOL	0010	. /	ANADLING	.100		Job Number: 03A1987006	Marker de Harred Avenue
Caland					SAMPLING	LUG		Logged By: MR	Method: Hand Auger Total Depth: 4'
				3.866936°		olorido Tost (	Ctrine and	Hole Diameter: 4" PID for chloride and vapor, re	
			-				•	factors included.	spectively. Chiloride test
Moisture Content						(ft bgs)			Descriptions
					- -	0	SP-SM	0-4', SAND, dry, dark bro silt, some staining,	own, poorly graded with H-C odor.
М	1,260	1.6	Υ	BH01	1 1	1		At 2', decrease in staing decrease in odor t	o slight H-C ofor.
М	816	0.9	Υ		2 - -	2 -		At 3', no staining, no od	or.
М	1,020	0.2	N		3 <u>-</u> -	3			
М	1,176	0.1						Total depth at 4' bgs.	
					- - - - - -	- - - - - - - -			

								Compile Name : DUO2	Data: 1.25.2022
	-							Sample Name: BH02	Date: 1-25-2022
			N	S	OI	U	M	Site Name: Ross Draw Unit # Incident Number: nAPP2200	
_									7/28/55 & NAB1/12951426
		UTUOL	2010	. /	ANADLINIC	.100		Job Number: 03A1987006	Nasth and Hand Avenue
Caand					AMPLING	LUG		Logged By: MR Hole Diameter: 4"	Method: Hand Auger Total Depth: 4'
				3.867072°		lorido Tost (	Ctrine and	PID for chloride and vapor, r	
			_					factors included.	espectively. Chloride test
Moisture Content						(ft bgs)	_		c Descriptions
	<128 <128 <128	0.1 0 0.2		BH02	1		_	0-4', SAND, dry, dark be silt, no staining, no	rown, poorly graded with o odor.
					-				

								Carrada Narras BUO2	D-4-14 25 2022
	200							Sample Name: BH03	Date: 1-25-2022
		E	N	5	OL		M	Site Name: Ross Draw Unit #011 Incident Number: nAPP22007287	7EE 0. nAD17130F143C
_								Job Number: 03A1987006	755 & NAB1/12951426
		ITHOL	2010	. / 5011 5	ANADLING	106			Nashbadi Hand Airea
Caandi					AMPLING	LUG		Logged By: MR Hole Diameter: 4"	Method: Hand Auger Total Depth: 4'
				3.867186°		Jarida Tast (	Ttring and	PID for chloride and vapor, respe	· ·
			_				•	factors included.	ctively. Chioride test
Moisture Content	0   0   0						_	Lithologic De	
					1	0	SP-SM	0-4', SAND, dry, dark brow silt, no staining, slight	n, poorly graded with odor.
					-	<b>-</b>		one, no ocanima, ongine	
					-	=		At 3', no odor.	
	400	2.5	.,			- ,		, ,	
M	<128	2.5	Υ		1 _	_ 1			
					_	-			
					-	-			
N 4	280	2 5	NI		2	2			
M	280	2.5	N			_ 2			
					_	- -			
					-	-			
D 4	1 5 4 4	1.1		DUIGO		- ,			
M	1,544	1.1	N	BH03	3	3			
					_	- -			
					_	-			
N 4	1 006	1 1	NI	DLIOS		- ,	TD	Total donth at 4' has	
M	1,896	1.4	N	BH03	4 _	_ 4	TD	Total depth at 4' bgs.	
					_	_			
					-	-			
					-	-			
					-	_			
					_	_			
					-	<u>-</u>			
						-			
					-	-			
						- -			
					_	<b>-</b>			
					]	-			
					_	<b>-</b> -			
					-	-			
						<b>-</b>			
					-	-			

								Sample Name: BH04	Date: 1-25-2022
	-7				0 1			Site Name: Ross Draw Unit #011	Date: 1 23 2022
			N	5	OL		V	Incident Number: nAPP22007287	55 & nAR1712951426
_	- 10							Job Number: 03A1987006	33 Q 11/1017 12331420
		ITHOL	OGIC	' / SOIL S	SAMPLING	ine		Logged By: MR	Method: Hand Auger
Coord				3.867181°		100		Hole Diameter: 4"	Total Depth: 4'
						Jorida Tast 9	Strins and	PID for chloride and vapor, respec	·
						factors included.	arvery. Cimoriae test		
Moisture Content	Content Chloride (ppm)  Sample ID Staining Staining (tt pgs)  USCS/Rock Symbol						Lithologic Des	·	
					1	0	SP-SM	0-4', SAND, dry, dark brown silt, slight staining, sligh	n, poorly graded with
					_	-		Siit, Siigiit Staiiiiig, Siigi	it odor.
					<u>-</u>	-		At 21 no staining	
					_			At 2', no staining.	
M	180	27.6	Υ		1 _	_ 1		At 3', color change to light b	arown no odor
					_	-		At 5, color change to light t	orown, no odor.
					-	-		At 4' color change to dark b	rown
					_	<b>-</b> -		At 4 Color change to dark b	TOWII.
M	1,260	9.9	N		2	_ 2			
					-	-			
					_	- -			
					_	_			
M	2,552	14.5	Ν	BH04	3	3			
					_	=			
					_	-			
					_	_			
М	1,772	20.2	Ν	BH04	4	4	TD	Total depth at 4' bgs.	
					-	-			
					_	<del>-</del> -			
					_	_			
					<u>-</u>	<b>-</b>			
						-			
					_	_			
					_	- -			
					-	-			
					-	Γ			
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					-	<u>-</u>			
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					-	-			
					-	-			
					<u> </u>	<del>-</del>			
					-	-			

								S 1 N BUOT	D 4.25.2022
	100							Sample Name: BH05	Date: 1-25-2022
	1		N	S	OI	_ U	M	Site Name: Ross Draw Unit #01	
								Incident Number: nAPP2200728	8/55 & nAB1/12951426
<b> </b>		LITUO:	20:1	1600	`ABAD! :5:5	100		Job Number: 03A1987006	
					AMPLING	LOG		Logged By: MR	Method: Hand Auger
				3.867092°		=		Hole Diameter: 4"	Total Depth: 4'
			-			•	PID for chloride and vapor, resp factors included.	ectively. Chloride test	
Moisture Content						(ft bgs)		Lithologic D	
						<u> </u>	SP-SM	0-4', SAND, dry, dark brov silt, no staining, no o	wn, poorly graded with dor.
					-	- -		At 2', color change to ligh	t brown.
М	152	0.1	N	BH05	1 _	1			
					- -	<del>-</del>			
					_	-			
M	<128	0.1	N		2	2			
					- - -	- -			
М	<128	0.1	N		3	_ 3			
					<u>-</u>	-			
М	<128	0.1	N	BH05	4	- - 4	TD	Total depth at 4' bgs.	
					- -	<u>-</u>			
					- -	- -			
					_	-			
					-	<del>-</del>			
					- - -	- -			
					- -	- -			
					- - -	- -			
					- -	-			
					- - -	- - -			
					-	-			

								Commis Names BUOC	Data: 1 25 2022	
								Sample Name: BH06	Date: 1-25-2022	
ш	2		N	S	OI	_ U	M	Site Name: Ross Draw Unit #0		
_								Incident Number: nAPP2200	728755 & NAB1/12951420	
		LITUOL	2010	. /	ANADLINIC	.100		Job Number: 03A1987006	Made at Hand Average	
Caand					AMPLING	LUG		Logged By: MR Hole Diameter: 4"	Method: Hand Auger Total Depth: 4'	
				3.866911°		alarida Tast (	Ctrine and	PID for chloride and vapor, re		
			_				•	factors included.	espectively. Cilionae test	
Moisture Content						(ft bgs)		Lithologic Descriptions  7 0-4', SAND, dry, dark brown, poorly graded with		
М	488	0.1	Ν	BH06	1 - - - 1 -	0	SP-SM	0-4', SAND, dry, dark br silt, no staining, no At 3', color change to lig	odor.	
М	444	0	N		2	- - - 2				
М	444	0.9	Ν		3	3				
M	356	0.4	N	BH06	4	4 	TD	Total depth at 4' bgs.		

								Sample Name: BH07	Date: 2-18-2022
								Site Name: Ross Draw Unit #011	Date. 2-16-2022
	1		N	5	U	LU	M	Incident Number: nAPP22007287	55 & nΔR1712Q51 <i>1</i> /26
								Job Number: 03A1987006	33 & HAB1712331420
<b> </b>		LITHOL	OGI	r / sou s	SAMPLING	SIOG		Logged By: GM	Method: Hand Auger
Coord				.03.866818		100		Hole Diameter: 4"	Total Depth: 4'
						nloride Test 9	Strins and	PID for chloride and vapor, respec	· ·
								actors included.	areigi emeride test
							~		
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
oist	Chloride (ppm)	Vapor (ppm)	ain	ηdu	Depth	(ft bgs)	SCS/Roc Symbol	Lithologic De	scriptions
žΰ	C)	<b>'</b>	St	Sar	(ft bgs)	(10.00)	USO		
						0	CCHE	0-1',CALICHE, dry, light brow	wn-brown, well graded,
D	588	0.1	N	BH07	0.5	+		very fine-fine grain, no	stain, no odor.
					_	<u> </u>			
					_	+			
D	<128	0.7	N		1 -	1	SP-SM	1-3',SAND, dry, brown, poo	rly graded with silt,
						Ţ		very fine-fine grain, no	stain, no odor.
					_	<del> </del>			
					_	Į.			
D	<128	0.2	N		2	2			
	120	0.2	.,			<b>†</b>			
					_	<del> </del>			
					_	Ĺ			
						3	CCLIE	2 Al CALICIE des light brow	un brown wall graded
					_	- 3	CCHE	3-4',CALICHE, dry, light brov very fine-medium grai	n, no stain, no odor.
					_	Į.			,
						-			
						<u> </u>		= · · · · · · · · · · · · · · · · · · ·	
D	444	0.2	N	BH07	4 -	4	TD	Total depth at 4' bgs.	
					_	Ĺ			
						-			
					_	Ė			
					_	L			
						-			
						<u> </u>			
					_	<b>-</b>			
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					-	┝			
					_	<u>L</u>			
						+			
<u> </u>					<u>I</u>	<u> </u>			

								Cample Name: BHO9	Dato: 2 19 2022
					•			Sample Name: BH08 Site Name: Ross Draw Unit #01	Date: 2-18-2022
	-		N	S	OL	_ U	M	Incident Number: nAPP220072	
_	10							Job Number: 03A1987006	20/33 & HAB1/12931420
		LITUOL	001	. / sou s	CANADLINIC	100			Made adultand Avena
Coord					SAMPLING	LUG		Logged By: GM	Method: Hand Auger Total Depth: 4'
				3.866896°	ith HACH Ch	Jarida Tast (	trine and	Hole Diameter: 4" PID for chloride and vapor, resp	· ·
								factors included.	sectively. Chloride test
Moisture Content						(ft bgs)			Descriptions
D	444	0.1	N	BH08	0.5 <u>-</u>	L 0 -	CCHE	0-1',CALICHE, dry, light b very fine-fine grain,	rown-brown, well graded, no stain, no odor.
D	152	0.1	Ν		1 _	- - - 1 - -	SP-SM	1-3',SAND, dry, brown, p very fine-fine grain,	oorly graded with silt, no stain, no odor.
D	<128	0.1	Ν		2	2 2 			
					- - - - -	- - 3 - -			
D	<128	0.1	Z	BH08	4	- 4 	TD	Total depth at 4' bgs.	

								Comple Names BLIOD	Data: 2 10 2022
					•			Sample Name: BH09 Site Name: Ross Draw Unit #01	Date: 2-18-2022
	-		N	5	OL	. U	M	Incident Number: nAPP220072	
_	10							Job Number: 03A1987006	6/33 & HAB1/12931420
		LITUOL	001	. /	CANADLINIC	100			Nasta ad Harad Avena
C					SAMPLING	LUG		Logged By: GM	Method: Hand Auger Total Depth: 4'
				3.867253°	:+b 114C11Cb	lawida Taak C	`*:	Hole Diameter: 4" PID for chloride and vapor, resp	
							actors included.	ectively. Chloride test	
Moisture Content	S S S S S S S S S S S S S S S S S S S					(ft bgs)		_	Descriptions
D	444	0.5	N	BH09	0.5	L 0	SP-SM	0-4',SAND, dry, brown, po very fine-fine grain,	oorly graded with silt, no stain, no odor.
D	820	0.9	N		1 _ - - 1 _ -	- - - 1 -			
D	1,360	0.8	N		2 _	- _ 2 - -			
					- - - -	- _ 3 - -		At 3', color change to ligh	nt brown-brown.
D	756	1.8	Z	BH09	4	4 	TD	Total depth at 4' bgs.	

								Sample Name: BH10	Date: 2-18-2022
	-1	-						Site Name: Ross Draw Unit #011	
			N	3	U	_ U		Incident Number: nAPP22007287	'55 & nAB1712951426
	10							Job Number: 03A1987006	
		ITHOL	OGIC	/ SOIL S	AMPLING	ilog		Logged By: GM	Method: Hand Auger
Coord				3.867331°				Hole Diameter: 4"	Total Depth: 4'
						loride Test !	Strips and	PID for chloride and vapor, respec	·
			_					factors included.	,
	± o						~		
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
Aoisture Content	Chlorid (ppm)	Vapor (ppm)	ain	ldπ	Depth	(ft bgs)	SS/I	Lithologic De	scriptions
žΰ	) )	/ _	St	Sar	(ft bgs)	(10.080)	US(		
					<u> </u>	0	SP	0-1',SAND, dry, brown, poo	orly graded,
D	280	0.5	N	BH10	0.5	-		very fine-fine grain, no	o stain, no odor.
					_	_			
					_	Ĺ			
D	<128	0.9	N		1 -	1	SP-SM	1-3', SAND, dry, reddish bro	own-brown, poorly
					-	Γ		graded with silt, very f	ine-fine grain, no stain,
					_	-		no odor.	
					_	_			
D	2,224	0.8	N		2 -	2			
	2,227	0.0	14		_				
					-	_			
					-	_			
					_	_			
					_	_ 3	SM	3-4', SILTY SAND, dry, tan-li	ight brown, fine-
					-	-		medium grain, no stai	n, no odor.
					_	<u>-</u>			
					_	_			
D	11,016	1.8	N	BH10	4	4	TD	Total depth at 4' bgs.	
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								Sample Name: BH11	Date: 2-18-2022
								Site Name: Ross Draw Unit #011	Date: 2-10-2022
ПВ			N	5	OI	U	M	Incident Number: nAPP22007287	55 & nAR1712051426
_								Job Number: 03A1987006	33 & HABI7 12331420
		LITHOL	OGIC	'/ SOIL S	SAMPLING	ilog		Logged By: GM	Method: Hand Auger
Coord				3.867229°				Hole Diameter: 4"	Total Depth: 4'
						loride Test !	Strips and	PID for chloride and vapor, respec	
							factors included.		
-							~		
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
Aoisture Content	olor ppr	Vapor (ppm)	ain	ηp	Depth	(ft bgs)	CS/ yml	Lithologic Des	scriptions
ΣÖ	Cł		St	Sai	(ft bgs)	, ,	USO		
						0	SP	0-3', SAND, dry, brown, poo very fine-fine grain, no	orly graded,
D	<128	2.2	N	BH11	0.5	-		very fine-fine grain, no	stain, no odor.
					_	<u> </u>			
					_				
D	<128	4.3	N		1 -	1			
					_	<b>F</b>			
					_	<u> </u>			
					_				
D	120	2.3	N		2	2			
	120	2.5							
					_	<u> </u>			
					_	L			
					-	3	CCLIE	2 4 CALICUE des tan wall	aradad fina
					-	_ 3	ССПЕ	3-4', CALICHE, dry, tan, well medium grain, no stair	n, no odor.
					_			,	,
					-	-			
				5		Γ.			
D	2,188	4.3	N	BH11	4 _	4	TD	Total depth at 4' bgs.	
					_	L			
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								Comple Name: DIII 2	Data: 2.20.2022
								Sample Name: BH12 Site Name: Ross Draw Unit #0	Date: 2-28-2022
Ш	_		N	S	OI	U	M	Incident Number: nAPP22003	
_								Job Number: 03A1987006	720755 & HAB1712951420
		ITUOL	2010	. /	ANADLINIC	100			
					AMPLING	LUG		Logged By: GM	Method: Hand Auger Total Depth: 4'
				3.866964°			~· · ·	Hole Diameter: 4"	· ·
			_					PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Descriptions
D	1,556	0.3	N		0.5 <u>-</u>	L 0 - -	SW-SM	0-1', SAND, dry, brown, very fine-fine grair	well graded with silt, n, no stain, no odor.
D	1,780	0.4	N		1 _ - -	- - 1 - -	SP-SM	1-4', SAND, dry, brown, very fine-fine grair	poorly graded with silt, n, no stain, no odor.
D	2,200	0.9	Ν	BH12	2	- _ 2 -			
					- - - -	- _ 3 - - -			
D	1,556	0.3	Z	BH12	4	4 	TD	Total depth at 4' bgs.	

								Sample Name: BH13	Date: 2-28-2022
					O 1			Site Name: Ross Draw Unit #011	Date: 2 20 2022
ПВ			N	5	OL	. U	M	Incident Number: nAPP22007287	55 & nΔR1712951426
	20							Job Number: 03A1987006	55 & 11/(51/12551126
		ITHOL	OGIC	' / SOIL S	AMPLING	ilog		Logged By: GM	Method: Hand Auger
Coord				3.867308°	AIVII LIIVO	100		Hole Diameter: 4"	Total Depth: 4'
					rith HACH Ch	loride Test '	Strins and	PID for chloride and vapor, respec	<u> </u>
			_					factors included.	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions
D	142	N/A	N		0.5	0	SP	0-2', SAND, dry, brown, poo fine-fine grain, organic	orly graded, very s, no stain, no odor.
					- - -	- - -		Note: PID not calibrating. O chlorides.	nly screening for
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, wel very fine- fine grain, no	l graded with silt, o stain, no odor.
					- - - - -	- - - -	ССНЕ	3-4', CALICHE, dry, light bro fine-fine grain, no staiı	wn, well graded, very n, no odor.
D	4,884	N/A	Z	BH13	4	- 4 	TD	Total depth at 4' bgs.	

								Canada Nanca BUIAA	D-4 2 20 2022
								Sample Name: BH14	Date: 2-28-2022
			N	5	OI	U	M	Site Name: Ross Draw Unit #01 Incident Number: nAPP220072	
_									8/55 & NAB1/12951426
İ		ITUOL	2010	. /	ANADLINIC	100		Job Number: 03A1987006	Mathad Hand Avenu
Caland					AMPLING	LUG		Logged By: GM Hole Diameter: 4"	Method: Hand Auger Total Depth: 4'
				3.867406°		Jarida Tast (	Ctrine and	PID for chloride and vapor, resp	· ·
			-				•	factors included.	ectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic D	·
D	360	N/A	N	BH14	0.5 <u>-</u>	0	SP	0-4', SAND, dry, brown, p fine-fine grain, orgar	oorly graded, very lics, no stain, no odor.
D	<120	N/A	Ν		1 -	- - - 1 -		NOTE: PID not calibrating chlorides.	. Only screening for
D	<120	N/A	Ν		2 <u> </u>	- - 2 -			
					-	- - 3 -		At 4', some silt.	
D	120	N/A	N	BH14	4 -	- 4 	TD	Total depth at 4' bgs.	

								ls 1 11 5145   5 1 2 2 2 2 2 2 2 2
		_				-		Sample Name: BH15 Date: 2-28-2022
			N	S	OI	U	M	Site Name: Ross Draw Unit #011
								Incident Number: nAPP2200728755 & nAB1712951426
		LITUOL	2010	. /	ANADLING	100		Job Number: 03A1987006
Coord				3.867317°	AMPLING	LUG		Logged By: GM Method: Hand Auger Hole Diameter: 4" Total Depth: 4'
						Jorido Tost (	String and	I PID for chloride and vapor, respectively. Chloride test
			_					factors included.
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
ΣŎ	)	_	St	Sal	(ft bgs)	, ,	USO	
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		
					-	<del>-</del> -		
						- _ 3	SW	3-4', SAND, dry, light brown, well graded, very
					-	- -		fine-fine grain, no stain, no odor.
,	.120	21/2		DUAE	<u>-</u> -	-		Total devilent Albert
D	<120	N/A	N	BH15	4 _	_ 4	TD	Total depth at 4' bgs.
					_	<u> </u>		
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					_			

								Cample Name DU16	Date: 2-28-2022
								Sample Name: BH16 Site Name: Ross Draw Unit #01	
	95.	E	N	S	OL	. U	M	Incident Number: nAPP220072	
_									20/33 & HAB1/12931420
		ITUOL	2010	. /	ANADLING	100		Job Number: 03A1987006	Markle and Harrid Access
Caand					AMPLING	LUG		Logged By: GM Hole Diameter: 4"	Method: Hand Auger Total Depth: 4'
				3.867375°		Jarida Tast (	Ctrine and	PID for chloride and vapor, res	·
			_					factors included.	pectively. Chiloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Descriptions
D	<120	N/A	N		0.5 <u>-</u>	0  -  -	SP	0-3', SAND, dry, brown, p fine-fine grain, organ	poorly graded, very nics, no stain, no odor.
D	1,360	N/A	Ν		1 _ - -	- _ 1 -		NOTE: PID not calibrating chlorides.	g. Only screening for
D	1,556	N/A	Ν	BH16	2 -	2 			
					- - - -	- _ 3 - -	SW-SM	3-4', SAND, dry, tan-light silt, very fine-fine gra	brown, well graded with ain, no stain, no odor.
D	3,076	N/A	Z	BH16	4 -	- 4 	TD	Total depth at 4' bgs.	

								Canada Nama BU147	D-4 2 20 2022
								Sample Name: BH17	Date: 2-28-2022
			N	5	OI	U	M	Site Name: Ross Draw Unit #011 Incident Number: nAPP2200728	
-									8/55 & NAB1/12951426
<u> </u>		ITUO	2010	. /	A B & D I I S I S	100		Job Number: 03A1987006	BALLE J. U. J.
					AMPLING	LUG		Logged By: GM	Method: Hand Auger
				3.867514°			~· · ·	Hole Diameter: 4"	Total Depth: 4'
			_				•	PID for chloride and vapor, resp factors included.	ectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic D	
D	<120	N/A	N		0.5	L 0	SP	0-3', SAND, dry, brown, po fine-fine grain, organ	oorly graded, very ics, no stain, no odor.
					- - -	- -		At 1', no organics.	
D	<120	N/A	N		1 _	_ 1 -		NOTE: PID not calibrating. chlorides.	Only screening for
D	888	N/A	Ν	BH17	2	2			
					- - - -	- _ 3 -	SW-SM	3-4', SAND, dry, light brov silt, very fine-fine gra	vn, well graded with in, no stain, no odor.
D	6,160	N/A	Z	BH17	4	4 	TD	Total depth at 4' bgs.	

								Cample Name: PHO1	Date: 3-3-2022
					•			Sample Name: BH01 Site Name: Ross Draw Unit #011	
			N	5	OL	_ U	M	Incident Number: nAB17285512	
_								Job Number: 03A1987006	.03 & HAB1720333770
		LITHOL	OGIO	r / sou s	SAMPLING	ine		Logged By: GM	Method: Hand Auger
Coord				3.866550°		100		Hole Diameter: 4"	Total Depth: 4'
						loride Test 9	Strins and	PID for chloride and vapor, response	,
								factors included.	
							~		
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
Moisture Content	Chloride (ppm)	Vapor (ppm)	ain	ηpl	Depth	(ft bgs)	CS/I	Lithologic D	escriptions
žΰ	C)	/ )	St	Sar	(ft bgs)	(10.080)	USO		
	_				<u> </u>	0	SP	0-1',SAND, dry, brown, po	orly graded,
D	6,160	1.5	N		0.5	-		very fine-fine grain, r	no stain, no odor.
					_	<u> </u>			
					_	_			
D	6,160	1	N		1 -	1	SP-SM	1-4',SAND, dry, brown, po	orly graded with silt,
						- -		very fine-fine grain, r	no stain, no odor.
					_	_			
					_	- -			
D	6,664	0.8	N	BH01	2 -	_ 2			
	0,001	0.0		Biloi					
					_	_			
					<u>-</u>	-			
					-	3			
					_	_ 3			
					_	- -			
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_						- 			
D	7,824	1.1	N	BH01	4 _	_ 4	TD	Total depth at 4' bgs.	
					<u>-</u>	- -			
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								Sample Name: BH02	Date: 3-3-2022
					<b>~</b> I			Site Name: Ross Draw Unit #011	Date: 3-3-2022
		=	N	5	OL		M	Incident Number: nAB172855120	5 & nAR1728553778
								Job Number: 03A1987006	3 & 11/12/20333770
		IITHOI	OGI	^ / SOIL 9	SAMPLING	LOG		Logged By: GM	Method: Hand Auger
Coord				3.866665°	AIVIFLIIVO	100		Hole Diameter: 4"	Total Depth: 4'
					ith HACH Ch	lorida Tast 9	Strine and	PID for chloride and vapor, respec	·
								actors included.	tivery. Cilioride test
							~		
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
ois	Chloride (ppm)	Vapor (ppm)	air	шр	Depth	(ft bgs)	cs/ ym	Lithologic De	scriptions
Σú	C)	, )	S	Sa	(ft bgs)	. 0,	US S		
D	3,076	0.4	N	BH02	0.5	_ 0 -	SP	0-1',SAND, dry, brown, poo very fine-fine grain, no	rly graded, o stain, no odor.
					_	<del>-</del> -			
					-	<u>_</u>			
D	1,664	0.4	N		1 ]	_ 1	SP-SM	1-4',SAND, dry, brown, poo very fine-fine grain, no	rly graded with silt,
					_	-		very fine fine grain, ne	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.	
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								Sample Name: BH03	Date: 3-3-2022
					<b>~</b> I			Site Name: Ross Draw Unit #01	
			N	5	OL	. U	M	Incident Number: nAB1728551	
_	10							Job Number: 03A1987006	203 & HAD1720333770
		LITHOL	OGI	^ / SOIL 9	SAMPLING	106			Method: Hand Auger
Coord				03.866854		100		Logged By: GM Hole Diameter: 4"	Total Depth: 4'
<b>I</b>						Inride Test 9	Strins and	PID for chloride and vapor, resp	
								factors included.	rectively. emoriae test
							~		
Moisture Content	Chloride (ppm)	ر ا ا	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol		
Moisture Content	Chloride (ppm)	Vapor (ppm)	ain	ldπ	Depth	(ft bgs)	SCS/Roc Symbol	Lithologic [	Descriptions
ğΰ	72	> =	St	Sar	(ft bgs)	(10 263)	US( S)		
						0	SP	0-1',SAND, dry, brown, po	oorly graded,
D	<120	0.4	N		0.5	-		very fine-fine grain,	no stain, no odor.
					_	_			
					-	- -			
D	252	0.3	N		1 -	_ 1	SP-SM	1-2',SAND, dry, brown, po	oorly graded with silt.
		0.0	.,			- <sup>-</sup>	0. 0	very fine-fine grain,	no stain, no odor.
					_	_			
						_			
D	1,556	0.3	N	BH03	2	2	CIAL CIA	2-4',SAND, dry, brown, w	all graded with cilt
	1,330	0.5	IN	БПОЗ	_		300-3101	very fine-fine grain,	no stain, no odor.
					_	_			
					-	-			
					_	-			
					_	_ 3			
					_	-			
					-	-			
					-	_			
D	7,216	0.9	N	BH03	4 _	_ 4	TD	Total depth at 4' bgs.	
					-	-			
					_	-			
					-	_			
					_	- -			
					-	=			
					_	-			
					_	_			
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								T	
	200							Sample Name: BH05	Date: 3-3-2022
			N	S	OL		M	Site Name: Ross Draw Unit #	
								Incident Number: nAB17285	551205 & nAB1728553778
	-							Job Number: 03A1987006	
					SAMPLING	LOG		Logged By: GM	Method: Hand Auger
				3.866836°				Hole Diameter: 4"	Total Depth: 4'
			_					PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		c Descriptions
D	<120	2.6	N	BH05	0.5 <u>-</u>	<u> </u>	SP	0-4',SAND, dry, brown, very fine-fine grai	poorly graded, n, no stain, no odor.
D	<120	4	Ν		1 - - -	- - - 1 - -			
D	<120	3.6	N		2 <u>-</u> 2 <u>-</u> -	- - 2 - -			
D	<120	4.3	Z	BH05	- - - - - 4	- 3 - 3  - 4	TD	Total depth at 4' bgs.	
D	<120	4.3	N	вноз	4	- 4 	טו	Total depth at 4 bgs.	

0	55							Sample Name: BH06	Date: 3-3-2022
			N	S	OL		M	Site Name: Ross Draw Unit #	
	70							Incident Number: nAB17285	51205 & nAB1728553778
	-							Job Number: 03A1987006	
					SAMPLING	LOG		Logged By: GM	Method: Hand Auger
				3.866931°				Hole Diameter: 4"	Total Depth: 4'
			_					PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		c Descriptions
D	144	0.7	Ν	BH06	0.5 <u>-</u>	0	SP	0-4',SAND, dry, brown, very fine-fine graii	poorly graded, n, no stain, no odor.
D	<120	0.8	Ν		1 - -	- - - 1 -			
D	<120	1.7	Ν		2	- - 2 -			
D	<120	2.9	Ν	вно6	- - - - 4	3 - - - - - 4	TD	Total depth at 4' bgs.	
					·	- · · · · · · · · · · · · · · · · · · ·			

								T	
	200							Sample Name: BH07	Date: 3-3-2022
			N	S	OL		M	Site Name: Ross Draw Unit #	
L	-							Incident Number: nAB17285	51205 & nAB1728553778
	-							Job Number: 03A1987006	
					SAMPLING	LOG		Logged By: GM	Method: Hand Auger
				3.866833°				Hole Diameter: 4"	Total Depth: 4'
			_					PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		c Descriptions
D	<120	1.8	Ν	BH07	0.5 <u> </u>	0	SP	0-4',SAND, dry, brown, very fine-fine grai	poorly graded, n, no stain, no odor.
D	<120	1.9	N		1 _ - - -	- - - 1 -			
D	<120	2.1	N		2 <u>-</u> - - -	- - 2 - -			
D	120	2.3	Z	BH07	- - - -	- 3 - 3 	TD	Total depth at 4' bgs.	
D	120	2.3	Z	ВН07	4	- 4 	ID	Total depth at 4' bgs.	

	57							Sample Name: BH08	Date: 3-3-2022
			N	S	OL		M	Site Name: Ross Draw Unit #03	
						Incident Number: nAB1728551205 & nAB1728553778			
<u> </u>						Job Number: 03A1987006			
					SAMPLING	Logged By: GM	Method: Hand Auger		
				3.867002°		Hole Diameter: 4"	Total Depth: 4'		
								PID for chloride and vapor, respractors included.	pectively. Chloride test
PC1101	ca witi	. I. T and		20101 01 301	. to distilled			astoro moradea.	
ure	Chloride (ppm)	ا د (-	ng		Sample	Depth	USCS/Rock Symbol		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Jple	Depth	-	SCS/Roc Symbol	Lithologic	Descriptions
ω C	Chl (p	y d	Sta	Sample ID	(ft bgs) (ft bgs)	JSC Sy			
					I	0	SP	0-4',SAND, dry, brown, p	oorly graded.
D	<120	1.3	Ν	BH08	0.5	<u> </u>		very fine-fine grain,	no stain, no odor.
					-	-			
					<u> </u>	<del>-</del>			
D	<120	1.4	N		1 -	1			
			'		- <del>-</del>	<u> </u>			
					_	H			
					<u> </u>	<b>-</b>			
D	<120	1.9	N		2 -	_ 2			
	`120	1.5	. 4			<b>-</b>			
					<u> </u>	-			
					<u>-</u>	<u>-</u>			
					_	3			
					<del>-</del>	- 3			
					_	<u> </u>			
					<u>-</u>	_			
D	<120	3.6	N	BH08	4	- - 4	TD	Total depth at 4' bgs.	
0	\12U	3.0	IN	рпυδ	4 _	- "	טו	i otai ueptii at 4 DgS.	
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								T	
_								Sample Name: BH09	Date: 3-3-2022
			N	S	OL		M	Site Name: Ross Draw Unit #	
ш								Incident Number: nAB17285	51205 & nAB1728553778
						Job Number: 03A1987006			
					SAMPLING	Logged By: GM	Method: Hand Auger		
				3.866859°		Hole Diameter: 4"	Total Depth: 4'		
			_					PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		c Descriptions
D	<120	1.1	N	BH09	0.5 <u>-</u>	0	SP	0-4',SAND, dry, brown, very fine-fine graii	poorly graded, n, no stain, no odor.
D	<120	1.5	N		1 - -	- - - 1 -			
D	<120	1.7	N		2 <u>-</u> - -	- _ 2 -			
					- - - - -	- - 3 - -			
D	168	1	N	BH09	4	4	TD	Total depth at 4' bgs.	

								Sample Name: BH10	Date: 3-3-2022		
	-				0 1			Site Name: Ross Draw Unit #011	Date: 5-5-2022		
	1	=	N	5	OL			Incident Number: nAB1728551205	5 & nΔR1728552779		
								Job Number: 03A1987006	7 & HAB1728333778		
1		IITHOI	OGI	^ / SOIL 9	SAMPLING	LOG		Logged By: GM Method: Hand Auger			
Coord				3.866730°		100		Hole Diameter: 4"	Total Depth: 4'		
						Inride Test 9	Strins and	PID for chloride and vapor, respect			
								factors included.	ivery. Cilionae test		
							~				
Moisture Content	Chloride (ppm)	or n)	Staining	Sample ID	Sample	Depth	USCS/Rock Symbol				
oist ont	Chloride (ppm)	Vapor (ppm)	ain	ηpl	Depth	(ft bgs)	SS/l	Lithologic Des	scriptions		
žΰ	C)	/ )	St	Sar	(ft bgs)	(** **8*)	US( S				
						0	SP	0-4',SAND, dry, brown, poor	rly graded,		
D	<120	1.7	N	BH10	0.5	-		very fine-fine grain, no	stain, no odor.		
						=					
					_	_					
D	<120	3.2	N		1 -	1					
					_	-					
					_	_					
					_	-					
D	<120	3.2	N		2	2					
						<u> </u>					
					_	_					
					_	_					
					-	3					
					_	_ 3					
					_	_					
					_	-					
D	<120	4.2	N	BH10	4	4	TD	Total depth at 4' bgs.			
	\120	4.2	IN	DITTO		- +	10	Total depth at 4 bgs.			
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APPENDIX D

Photographic Log

## **ENSOLUM**

#### **Photographic Log**

WPX Energy Permian, LLC.
Ross Draw Unit #011 - Project Location
Ensolum Job Number: 03A1987006





Photograph 2

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



APPENDIX E

**Tables** 

Received by OCD: 1/18/2024 1:45:48 RM



# 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	Benzene	Total BTEX	TPH GRO	TPH DRO	TPH MRO	GRO+DRO	Total TPH	Chloride
•	Date	(feet bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(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 Num	ber: nAB1712951426	and nAPP22072875	5			
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

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# 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 Num	ber: nAB1728551205	and nAB1728553778	8			
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

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## 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

# **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

J. CRAMER

Authorized for release by: 2/3/2022 12:01:30 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

····· Links ·····

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 2/8/2024 11:50:58'AM

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

intended to be the legally binding equivalent of a traditionally handwritten signature.

This report has been electronically signed and authorized by the signatory. Electronic signature is

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Client: WSP USA Inc.

Project/Site: RDU 11

Laboratory Job ID: 890-1876-1

SDG: Eddy

## **Table of Contents**

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	15
QC Sample Results	16
QC Association Summary	20
Lab Chronicle	23
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	32

	{	

## **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-1876-1 Project/Site: RDU 11

SDG: Eddy

#### **Qualifiers**

#### **GC VOA**

Qualifier **Qualifier Description** 

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	y used abbreviations may	y or may not be	present in this report.
Appleviation	These commonly	y useu abbievialions ina	y or illay hot 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 Contains Free Liquid CFL **CFU** Colony Forming Unit **CNF** Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) **DER** 

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) Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**Practical Quantitation Limit PQL** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) **RER** 

RI 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

Released to Imaging: 2/8/2024 11:50:58 AM

#### **Case Narrative**

Client: WSP USA Inc. Job ID: 890-1876-1 Project/Site: RDU 11

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.

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** 

Sample Depth: 1

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 Calcula	tion						
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 Organic	s (DRO) (0	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

Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac <50.0 U 50.0 01/31/22 11:10 02/01/22 11:34 Gasoline Range Organics mg/Kg (GRO)-C6-C10 <50.0 U 50.0 01/31/22 11:10 02/01/22 11:34 Diesel Range Organics (Over mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 01/31/22 11:10 02/01/22 11:34 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 70 - 130 01/31/22 11:10 02/01/22 11:34 81

o-Terphenyl 90 70 - 130 01/31/22 11:10 02/01/22 11:34 **Client Sample ID: BH01** Lab Sample ID: 890-1876-2

Date Collected: 01/25/22 09:24 Date Received: 01/26/22 16:08

Sample Depth: 4

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)			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

**Eurofins Carlsbad** 

**Matrix: Solid** 

Job ID: 890-1876-1 SDG: Eddy

Client Sample ID: BH01

Lab Sample ID: 890-1876-2

Matrix: Solid

Date Collected: 01/25/22 09:24 Date Received: 01/26/22 16:08

Sample Depth: 4

Method: Total BTEX - Total BT	EX Calcula	tion						
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 Ran	ge Organics	s (DRO) (G	iC)					
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

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
Oll 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

			1 1 0 1 10 000 4000 0
o-Terphenyl	92	70 - 130	01/31/22 11:10 02/01/22 11:56 1
			0-Telphenyi 92 70 - 130

Client Sample ID: BH02 Lab Sample ID: 890-1876-3
Date Collected: 01/25/22 09:32
Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 1

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 BT	TEX 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 Ran	ge Organic	s (DRO) (G	iC)					
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 F	Range Organi	ics (DRO) (C	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

50.0

mg/Kg

<50.0 U

**Eurofins Carlsbad** 

01/31/22 11:10 02/01/22 12:18

3

10

12

13

Oll Range Organics (Over C28-C36)

Job ID: 890-1876-1

Lab Sample ID: 890-1876-3

SDG: Eddy

**Matrix: Solid** 

**Client Sample ID: BH02** 

Date Collected: 01/25/22 09:32

Date Received: 01/26/22 16:08

Sample Depth: 1

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

Lab Sample ID: 890-1876-4 Client Sample ID: BH02 Date Collected: 01/25/22 09:50 **Matrix: Solid** 

Date Received: 01/26/22 16:08

Sample Depth: 4

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 BTE	<b>=X Calcula</b>	tion						
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 Ran	nge Organic	s (DRO) (G	iC)					
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 Ra	ange Organics (DRO) (GO	<b>;</b> )			
Analyte	Result Qualifier	RL	Unit	D	Prepared

Analyzed 01/31/22 11:10 02/01/22 12:40 <50.0 U 50.0 mg/Kg Gasoline Range Organics (GRO)-C6-C10 <50.0 U 50.0 01/31/22 11:10 02/01/22 12:40 Diesel Range Organics (Over mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 01/31/22 11:10 02/01/22 12:40

Surrogate	%Recovery Q	Qualifier L	imits	Prepared	Analyzed	Dil Fac	
1-Chlorooctane	77	70	0 - 130	01/31/22 11:10	02/01/22 12:40	1	
o-Terphenyl	86	70	0 - 130	01/31/22 11:10	02/01/22 12:40	1	

**Client Sample ID: BH03** Lab Sample ID: 890-1876-5 Date Collected: 01/25/22 10:08 **Matrix: Solid** 

Date Received: 01/26/22 16:08

Sample Depth: 3

Method: 8021B - Volatile	<b>Organic Compounds</b>	(GC)					
Analyte	Result Quali	fier 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

**Eurofins Carlsbad** 

Dil Fac

2/3/2022

Result Qualifier

<49.9 U

Job ID: 890-1876-1

Lab Sample ID: 890-1876-5

Analyzed

01/31/22 13:14

SDG: Eddy

**Matrix: Solid** 

**Client Sample ID: BH03** 

Date Collected: 01/25/22 10:08

Date Received: 01/26/22 16:08

Sample Depth: 3

Analyte

Total TPH

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 Calcula	tion						
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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:02	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		01/31/22 11:10	02/01/22 13:02	1
C10-C28)								
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-Terphenvl	93		70 - 130			01/31/22 11:10	02/01/22 13:02	1

RL

49.9

Unit

mg/Kg

Prepared

Method: 300.0 - Anions, Ion Ch	romatogra	phy - Solub	ole					
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** Lab Sample ID: 890-1876-6 Date Collected: 01/25/22 10:14 **Matrix: Solid** 

Date Received: 01/26/22 16:08

Sample Depth: 4

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: WSP USA Inc. Job ID: 890-1876-1 Project/Site: RDU 11 SDG: Eddy

**Client Sample ID: BH03** Lab Sample ID: 890-1876-6 Date Collected: 01/25/22 10:14

Date Received: 01/26/22 16:08

Matrix: Solid

02/01/22 19:04

**Matrix: Solid** 

Sample Depth: 4

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 Ran	ige Organic	s (DRO) (G	SC)					
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 Ra	ange Organi	ics (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

Lab Sample ID: 890-1876-7 **Client Sample ID: BH04** 

mg/Kg

2420 F1

Date Collected: 01/25/22 10:34

Date Received: 01/26/22 16:08

Released to Imaging: 2/8/2024 11250:58 AM

Sample Depth: 3

Chloride

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)			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
Made at Table DTEV Table								
Method: Total BTEX - Total	l BTEX Calcula	tion						
Method: Total BTEX - Total Analyte		tion Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier	RL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/02/22 16:52	Dil Fac
<b>Analyte</b> Total BTEX	<0.00403	<b>Qualifier</b> U	0.00403		<u>D</u>	Prepared		Dil Fac
Analyte Total BTEX Method: 8015 NM - Diesel	Result <0.00403	<b>Qualifier</b> U	0.00403		<u>D</u>	Prepared Prepared		Dil Fac
	Result <0.00403	Qualifier U	0.00403	mg/Kg			02/02/22 16:52	1
Analyte Total BTEX Method: 8015 NM - Diesel   Analyte Total TPH	Result <0.00403  Range Organic Result 68.8	Qualifier U  s (DRO) (O Qualifier	0.00403 GC) RL 49.9	mg/Kg			02/02/22 16:52  Analyzed	1
Analyte Total BTEX Method: 8015 NM - Diesel   Analyte	Result <0.00403  Range Organic Result 68.8  Range Organic	Qualifier U  s (DRO) (O Qualifier	0.00403 GC) RL 49.9	mg/Kg			02/02/22 16:52  Analyzed	1

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 Lab Sample ID: 890-1876-7 Matrix: Solid

Sample Depth: 3

Client: WSP USA Inc.

Project/Site: RDU 11

Method: 8015B NM - Diesel R Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	68.8	quamor	49.9	mg/Kg	_ =	01/31/22 11:10		1
Oll 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 C	hromatogra	phy - Solu	ıble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BH04 Lab Sample ID: 890-1876-8

25.0

mg/Kg

3320

Date Collected: 01/25/22 10:40 Date Received: 01/26/22 16:08 Matrix: Solid

02/01/22 19:22

Sample Depth: 4

**Chloride** 

Cample Deptil. 4

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 B	TEX Calcula	tion						
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 Rar	nge Organic	s (DRO) (0	GC)					
Method: 8015 NM - Diesel Rar Analyte	•	s (DRO) (O	GC)	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 01/31/22 13:14	Dil Fac
Analyte Total TPH	Result   <50.0	Qualifier U	<b>RL</b> 50.0		<u>D</u>	Prepared		
Analyte	Result <50.0	Qualifier U	<b>RL</b> 50.0		<u>D</u>	Prepared Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics	Result <50.0	Qualifier U ics (DRO) Qualifier	RL 50.0	mg/Kg	_ =	<u> </u>	01/31/22 13:14	1
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0	Qualifier U  ics (DRO) Qualifier U	RL 50.0	mg/Kg	_ =	Prepared	01/31/22 13:14  Analyzed 02/01/22 14:08	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0  ange Organ Result <50.0	Qualifier U  ics (DRO) Qualifier U	RL	mg/Kg  Unit mg/Kg	_ =	Prepared 01/31/22 11:10 01/31/22 11:10	01/31/22 13:14  Analyzed 02/01/22 14:08	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 01/31/22 11:10 01/31/22 11:10	01/31/22 13:14  Analyzed 02/01/22 14:08 02/01/22 14:08	1 Dil Fac 1
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0  ange Organ Result <50.0  <50.0  <50.0	Qualifier U  ics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 01/31/22 11:10 01/31/22 11:10 01/31/22 11:10	Analyzed 02/01/22 14:08 02/01/22 14:08 02/01/22 14:08 Analyzed	1 Dil Fac 1 1

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14

Job ID: 890-1876-1

SDG: Eddy

Client Sample ID: BH04

Lab Sample ID: 890-1876-8 Date Collected: 01/25/22 10:40

Matrix: Solid

Date Received: 01/26/22 16:08 Sample Depth: 4

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** Lab Sample ID: 890-1876-9 Date Collected: 01/25/22 13:20

Matrix: Solid

Date Received: 01/26/22 16:08

Sample Depth: 2

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 Analyte		tion 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 I Analyte		s (DRO) (O Qualifier	GC)	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/31/22 13:14	1
Mathadi 0045D NM Diasa	l Pango Organi	ice (DRO)	(GC)					
METHON: XUISH NIM - LIJESE								
Method: 8015B NM - Diese Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Gasoline Range Organics	<49.9	U	49.9	mg/Kg	01/31/22 11:10	02/01/22 14:30	1
(GRO)-C6-C10							
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg	01/31/22 11:10	02/01/22 14:30	1
C10-C28)							
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
1-Chiloroctane							

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: WSP USA Inc. Job ID: 890-1876-1 Project/Site: RDU 11 SDG: Eddy

**Client Sample ID: BH05** Lab Sample ID: 890-1876-10

Date Collected: 01/25/22 13:25 **Matrix: Solid** Date Received: 01/26/22 16:08

Sample Depth: 4

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 B	TEX Calcula	tion						
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 Rai Analyte Total TPH	•	Qualifier	RL 50.0	Unit ma/Ka	<u>D</u>	Prepared	Analyzed 01/31/22 13:14	Dil Fac
Iotal IPH	<50.0	U	50.0	mg/Kg			01/31/22 13:14	1
Method: 8015B NM - Diesel R	ange Organ	ics (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 C	hromatogra	phy - Solu	ble					

**Client Sample ID: BH06** Lab Sample ID: 890-1876-11 Date Collected: 01/25/22 14:10 **Matrix: Solid** 

4.98

35.6

mg/Kg

Date Received: 01/26/22 16:08

Sample Depth: 1

Chloride

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)			70 - 130			01/28/22 12:00	01/28/22 18:55	1

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02/02/22 10:49

Job ID: 890-1876-1

Lab Sample ID: 890-1876-11

Analyzed

Lab Sample ID: 890-1876-12

Prepared

SDG: Eddy

**Matrix: Solid** 

**Client Sample ID: BH06** 

Date Collected: 01/25/22 14:10

Date Received: 01/26/22 16:08

Sample Depth: 1

Method: 8021B	Volatile Orga	anic Compounds	(GC)	(Continued)
Mictiliou. OUZ ID	Volume Org		1001	(Oditiliaea)

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

RL

Unit

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier

		11			04/04/00 44:40	00/04/00 45:05	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg	01/31/22 11:10	02/01/22 15:35	1
(GRO)-C6-C10							
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg	01/31/22 11:10	02/01/22 15:35	1
C10-C28)				0 0			
,	4F0 0	1.1	FO 0		04/04/00 44:40	02/01/22 15:35	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	01/31/22 11:10	02/01/22 15:35	'
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
					-1		
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
0-respirettys	70		10-130		01/01/22 11.10	02/01/22 10.00	,

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

Method: 8021R	- Volatila	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	ma/Ka			01/31/22 13:14		

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Method, ou lob MM - Diesel Ital	ige Organi	CS (DIVO) (	30)					
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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 15:57	1

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Dil Fac

Matrix: Solid

## **Client Sample Results**

Client: WSP USA Inc. Project/Site: RDU 11

Job ID: 890-1876-1 SDG: Eddy

**Client Sample ID: BH06** Lab Sample ID: 890-1876-12 Date Collected: 01/25/22 14:28

Matrix: Solid

Date Received: 01/26/22 16:08 Sample Depth: 4

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 Prepared Analyzed Dil Fac Chloride 4.98 02/01/22 20:14 464 mg/Kg

## **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

				t Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(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	

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1	ent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-1876-1 Project/Site: RDU 11 SDG: Eddy

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A

Lab Sample ID: LCS 880-17922/1-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 17974** 

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

Prep Batch: 17922

	MB	MB						
Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Anal	yzed E	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/28/22 07:30 01/28/2	2 11:18	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/28/22 07:30 01/28/2	2 11:18	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 17922

Prep Type: Total/NA

Prep Batch: 17922

**Analysis Batch: 17974** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.07650 76 70 - 130 mg/Kg 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 mg/Kg 76 70 - 130 0.1514 o-Xylene 0.100 0.07781 mg/Kg 78 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Matrix: Solid** 

**Analysis Batch: 17974** 

Lab Sample ID: LCSD 880-17922/2-A

<b>/</b>								
	Spike	LCSD L	LCSD			%Rec.		RPD
Analyte	Added	Result (	Qualifier Unit	D	%Rec	Limits	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

LCSD LCSD

Surrogate	%Recovery	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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

**Prep Type: Total/NA** 

## **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

Client Sample ID: Matrix Spike
Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 17974

Sample Sample Spike MS MS 

Rec. 

Prep Type: Total/NA

Prep Batch: 17922

	Sample	Sample	Spike	IVIO	IVIO				/OINEC.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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
 %Recovery 100
 Qualifier 200
 Limits 200

 4-Bromofluorobenzene (Surr)
 100
 70 - 130

 1,4-Difluorobenzene (Surr)
 88
 70 - 130

Lab Sample ID: 890-1872-A-3-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Batch: 17922 **Analysis Batch: 17974** Sample Sample Spike MSD MSD %Rec. **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit <0.00201 U 0.0998 70 - 130 35 Benzene 0.08226 mg/Kg 82 0 Toluene <0.00201 U 0.0998 0.07930 79 70 - 130 35 mg/Kg 1

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 82 70 - 130 3 35 mq/Kq <0.00201 U 0.0998 0.08062 81 o-Xylene mg/Kg 70 - 1305 35

 Surrogate
 %Recovery 4-Bromofluorobenzene (Surr)
 %Recovery 100
 Qualifier 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

Analysis Batch: 18225

	IVID	IAID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
(GRO)-C6-C10	.50.0		50.0	0.6		04/04/00 44 40	00/04/00 00 00	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
Oll Range Organics (Over C28-C36)	<50.0	ш	50.0	mg/Kg		01/31/22 11:10	02/01/22 09:23	1
On Nange Organics (Over 620-630)	<b>~30.0</b>	U	30.0	mg/rtg		01/31/22 11.10	02/01/22 09.23	

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 1-Chlorooctane
 82
 70 - 130
 01/31/22 11:10
 02/01/22 09:23
 1

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 Client Sample ID: Lab Control Sample

Matrix: Solid
Analysis Batch: 18225

Prep Batch: 18143

Spike LCS LCS

\*\*Pec Matrix: Solid

Prep Type: Total/NA

Prep Batch: 18143

	Spike	LUS	LUS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	1000	846.8		mg/Kg		85	70 - 130		
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1190		mg/Kg		119	70 - 130		
C10-C28)									

Job ID: 890-1876-1

SDG: Eddy

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-18143/2-A

Lab Sample ID: LCSD 880-18143/3-A

Lab Sample ID: 890-1883-A-1-C MS

**Matrix: Solid** 

**Analysis Batch: 18225** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 18143

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	96		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Matrix: Solid** 

**Analysis Batch: 18225** 

**Prep Type: Total/NA** 

Prep Batch: 18143 RPD

LCSD LCSD Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 926.5 mg/Kg 93 70 - 130 9 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1204 mg/Kg 120 70 - 130 20

C10-C28)

**Matrix: Solid** 

**Analysis Batch: 18225** 

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	93		70 - 130

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

Prep Batch: 18143

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec

<49.9 U 999 Gasoline Range Organics 851.8 mg/Kg 83 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 970.6 mg/Kg 95 70 - 130

C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 69 S1-1-Chlorooctane 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

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Limits **RPD** Limit Analyte Unit %Rec Gasoline Range Organics <49.9 U 999 967.9 mg/Kg 95 70 - 130 13 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 999 999.6 mg/Kg 98 70 - 130 3 20

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	70		70 - 130

Job ID: 890-1876-1

SDG: Eddy

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18029/1-A

**Client Sample ID: Method Blank** 

93

**Matrix: Solid Analysis Batch: 18094** 

MB MB

**Prep Type: Soluble** 

**Client Sample ID: BH03** 

Client Sample ID: BH03

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared Chloride 5.00 02/01/22 17:20 <5.00 U mg/Kg

Lab Sample ID: LCS 880-18029/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 18094

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 90 - 110

Lab Sample ID: LCSD 880-18029/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

231.6

mg/Kg

**Analysis Batch: 18094** 

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Limits RPD Limit Unit D %Rec Chloride 250 261.3 105 90 - 110 mg/Kg

Lab Sample ID: 890-1876-6 MS

**Matrix: Solid** 

**Analysis Batch: 18094** 

Spike MS MS %Rec. Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 2420 F1 1240 3559 90 - 110 mg/Kg

Lab Sample ID: 890-1876-6 MSD

**Matrix: Solid** 

**Analysis Batch: 18094** 

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 2420 F1 1240 3183 F1 62 90 - 110 20 mg/Kg 11

## **QC Association Summary**

Job ID: 890-1876-1 Client: WSP USA Inc. Project/Site: RDU 11 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

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## **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

Job ID: 890-1876-1

SDG: Eddy

**Client Sample ID: BH01** 

Client: WSP USA Inc.

Project/Site: RDU 11

Lab Sample ID: 890-1876-1

Matrix: Solid

Date Collected: 01/25/22 09:10 Date Received: 01/26/22 16:08

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 890-1876-2

Date Collected: 01/25/22 09:24 Date Received: 01/26/22 16:08

**Matrix: Solid** 

**Client Sample ID: BH01** 

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-1876-3

Date Collected: 01/25/22 09:32

**Matrix: Solid** 

Date Received: 01/26/22 16:08

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-1876-4 Date Collected: 01/25/22 09:50

Date Received: 01/26/22 16:08

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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Matrix: Solid

Lab Sample ID: 890-1876-5

Matrix: Solid

**Client Sample ID: BH03** Date Collected: 01/25/22 10:08

Date Received: 01/26/22 16:08

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-1876-6 Date Collected: 01/25/22 10:14 **Matrix: Solid** 

Date Received: 01/26/22 16:08

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Number or Analyzed Type Run **Factor Amount** Amount **Analyst** Lab Total/NA Prep 5035 5 mL 17922 01/28/22 12:00 KL XEN MID 5.02 g Total/NA 8021B 5 mL 17974 01/28/22 17:13 KL XEN MID Analysis 5 mL 1 Total/NA Total BTEX 02/02/22 16:52 AJ Analysis 1 18419 XEN MID Total/NA 8015 NM 01/31/22 13:14 AJ XEN MID Analysis 1 18170 Total/NA Prep 8015NM Prep 10.01 g 10 mL 18143 01/31/22 11:10 DM XEN MID Total/NA 8015B NM 02/01/22 13:24 AJ XEN MID Analysis 1 18225 Soluble 5.05 g 50 mL 18029 01/28/22 10:48 CH XEN MID Leach DI Leach Soluble 300.0 5 02/01/22 19:04 CH XEN MID Analysis 18094

Client Sample ID: BH04 Lab Sample ID: 890-1876-7 Date Collected: 01/25/22 10:34 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-1876-8 Date Collected: 01/25/22 10:40 Matrix: Solid

Date Received: 01/26/22 16:08

Date Received: 01/26/22 16:08

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

**Eurofins Carlsbad** 

Page 24 of 33

Client Sample ID: BH04

Lab Sample ID: 890-1876-8

Matrix: Solid

Date Collected: 01/25/22 10:40 Date Received: 01/26/22 16:08

Client: WSP USA Inc.

Project/Site: RDU 11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-1876-9 Date Collected: 01/25/22 13:20 **Matrix: Solid** 

Date Received: 01/26/22 16:08

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Amount Amount Number or Analyzed Type Run **Factor Analyst** Lab Total/NA 5035 17922 01/28/22 12:00 KL XEN MID Prep 5.01 g 5 mL Total/NA Analysis 8021B 1 5 mL 5 mL 17974 01/28/22 18:14 KL XEN MID Total/NA **Total BTEX** 02/02/22 16:52 AJ Analysis 1 18419 XEN MID Total/NA 8015 NM 18170 01/31/22 13:14 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.03 g 18143 01/31/22 11:10 DM XEN MID 10 mL Total/NA 8015B NM 18225 02/01/22 14:30 AJ XEN MID Analysis 1 Soluble 01/28/22 10:48 CH XEN MID Leach DI Leach 4.98 g 50 mL 18029 Analysis 300.0 18094 02/01/22 19:56 CH XEN MID Soluble 1

**Client Sample ID: BH05** Lab Sample ID: 890-1876-10 Date Collected: 01/25/22 13:25 Matrix: Solid

Date Received: 01/26/22 16:08

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 890-1876-11 **Client Sample ID: BH06** Date Collected: 01/25/22 14:10 **Matrix: Solid** 

Date Received: 01/26/22 16:08

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 890-1876-12

**Matrix: Solid** 

Date Collected: 01/25/22 14:28 Date Received: 01/26/22 16:08

**Client Sample ID: BH06** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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.

Job ID: 890-1876-1

Project/Site: RDU 11

SDG: Eddy

## **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
5 ,				
Analysis Method	Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

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## **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
3015NM 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

**Eurofins Carlsbad** 

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# **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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Project Manager: Company Name:

A SHEE

State of Project:

UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐

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Work Order Comments

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# Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

**Environment Testing** 

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	tions Itrol negotiated.	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.	nns Xenco, its affiliates and suluses incurred by the client if sucurofins Xenco, but not analyze	any to Euro es or expen omitted to E	ler from client comp onsibility for any loss for each sample sut	s a valid purchase ore not assume any respo ct and a charge of \$5	nples constitute nples and shall nd to each proje	and relinquishment of san ble only for the cost of sa ge of \$85.00 will be applic	gnature of this document . Eurofins Xenco will be lia is Xenco. A minimum chai
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Sample Comments	Si		BTO TPH Ch	b/ # of Cont	Depth Comp	Time Sampled	Date Sampled	on Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	NaOH+		1	1_	0.1	Corrected Temperature:	Corrected	(	Total Containers:
Zn Acetate+NaOH: Zn		890-1876 Chain of Custody	( E	10	1.2 (1.	Temperature Reading:	Tempera	Yes No N/A	Sample Custody Seals:
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>			e f PA	Pa	1.0-	n Factor:	Correction Factor:	Yes No N/A	Cooler Custody Seals:
NaHSO 4: NABIS	NaHSO		3	aran	1-Nmov	eter ID:	Thermometer ID:	Yes No	Samples Received Intact:
HP	H <sub>3</sub> PO 4: HP		8 89 \$9	neter	ON NO	Wet Ice:	Yes No	Temp Blank:	SAMPLE RECEIPT
H <sub>2</sub> NaOH: Na	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>		15	s	the lab, if received by 4:30pm	the lab, if rec	031	0, 09 EEO H	7).
	HCL: HC		m		TAT starts the day received by	TAT starts the	ch	Mercy Ronch	
ool MeOH: Me	Cool: Cool		) (ap)			Due Date:		CNOT	Project Location:
NO DI Water: H <sub>2</sub> O	None: NO			Pres. Code	Rush	Routine	(53	50.975EDA1E	er:
Preservative Codes	Pr	ANALYSIS REQUEST		-	Turn Around	Turn		DV 11	Project Name:
Other:	Deliverables: EDD ADaPT	OM   Delive	e, wsp.	Breis	Anna.	Email:	23 29	11-702	25
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**Environment Testing** 

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	nditions control	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 where the control is a standard terms 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	ns Xenco, its affiliates and s	any to Eurofi	r from client comp	/alid purchase orde	ples constitutes a	nt and relinquishment of sam	otice: Signature of this docume
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U V Zn	Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn	Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se	Al Sb As Ba Be B Cd		M Texas 11	8RCRA 13PPM	8	200.8 / 6020:	Total 2007 / 6010
			>		4	87.71	124/5011	S	9048
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Sample Comments			BTE TPH Chl	b/ # of	Depth Comp	Time Sampled	Date × Sampled	tion Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	NaOH		(		rance	emperature:	Corrected		Total Containers:
Zn Acetate+NaOH: Zn	Zn Ac		٤١			Reading	Tre Contraction	Yes No N/A	Sample Custody Seals:
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	Na <sub>2</sub> S <sub>2</sub>		PA	Pa		actor:	Correction Factor:	Yes No N/A	Cooler Custody Seals:
NaHSO 4: NABIS	NaHSO		.8	ran	1	r ID:	Thermometer ID:	Yes No	Samples Received Intact:
₄: HP	H₃PO;;HP		d1	neter	Yes No	Wet Ice:	Yes No	Temp Blank:	SAMPLE RECEIPT
4: H 2 NaOH: Na	H <sub>2</sub> SO <sub>4</sub> :H <sub>2</sub>		B) 30	rs	ived by 4:30pm	the lab, if rece	031	31403360.031	PO #:
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Cool MeOH: Me	Cool: Cool					Due Date:		4883	Project Location:
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# **Login Sample Receipt Checklist**

Client: WSP USA Inc.

Job Number: 890-1876-1 SDG Number: Eddy

Login Number: 1876 **List Source: Eurofins Carlsbad** 

List Number: 1

Creator: Olivas, Nathaniel

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

List Source: Eurofins Midland
List Number: 2
List Creation: 01/28/22 12:32 PM

Creator: Rodriguez, Leticia

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	
s 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	

N/A

**Eurofins Carlsbad** 

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Containers requiring zero headspace have no headspace or bubble is



# **Environment Testing America**

# **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

JURAMER

Authorized for release by: 3/3/2022 3:57:39 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

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Have a Question?



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www.eurofinsus.com/Env

Released to Imaging: 2/8/2024 11:50:58'AM

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.

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Client: WSP USA Inc.

Project/Site: RDU 11

Laboratory Job ID: 890-2003-1

SDG: 31403360.03

**Table of Contents** 

1
2
3
4
5
13
15
22
26
30
31
32
33
36
2 3 4 5 1 1 2 3 3 3

2

3

4

6

8

10

11

13

14

#### **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-2003-1 Project/Site: RDU 11 SDG: 31403360.03

**Qualifiers** 

<b>GC VOA</b>
Qualifier

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.

**Qualifier Description** 

**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	Qualitier 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)

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

MCL MDA

DLC

EDL

LOD

LOQ

DL, RA, RE, IN

Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) Method Detection Limit MDL

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)

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Limit of Quantitation (DoD/DOE)

NEG Negative / Absent Positive / Present POS **PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

Released to Imaging: 2/8/2024 11250:58 AM

**TNTC** Too Numerous To Count

#### **Case Narrative**

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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.

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Matrix: Solid

Lab Sample ID: 890-2003-1

# **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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

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 BTE	X 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
<u> </u>		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
<u> </u>	Result 81.7	Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/25/22 15:07	
Analyte Total TPH  Method: 8015B NM - Diesel Ran	81.7				<u>D</u>	Prepared		
Total TPH  Method: 8015B NM - Diesel Ran	81.7 ge Organics (D				<u>D</u>	Prepared Prepared		1
Total TPH  Method: 8015B NM - Diesel Randanalyte  Gasoline Range Organics	81.7 ge Organics (D	RO) (GC)  Qualifier	50.0	mg/Kg	<u> </u>		02/25/22 15:07	1 Dil Fac
Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	81.7 ge Organics (D Result	RO) (GC)  Qualifier	50.0	mg/Kg	<u> </u>	Prepared	02/25/22 15:07  Analyzed	Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D Result <50.0	RO) (GC) Qualifier	8L 50.0	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed  02/25/22 03:14	Dil Fac
Method: 8015B NM - Diesel Rand Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	81.7  ge Organics (D)  Result  <50.0  81.7	RO) (GC) Qualifier U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	<u> </u>	Prepared 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 03:14 02/25/22 03:14	1 Dil Fac
Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	81.7  ge Organics (D)  Result  <50.0  81.7  <50.0	RO) (GC) Qualifier U	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	<u> </u>	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 03:14 02/25/22 03:14	Dil Face 1 1 1 Dil Face
Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	81.7  ge Organics (D  Result  <50.0  81.7  <50.0  %Recovery	RO) (GC) Qualifier U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	<u> </u>	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51 Prepared	02/25/22 15:07  Analyzed 02/25/22 03:14 02/25/22 03:14 02/25/22 03:14 Analyzed	Dil Fac
Total TPH  Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	81.7  ge Organics (D)  Result  <50.0  81.7  <50.0  %Recovery  88  86	RO) (GC) Qualifier U	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	<u> </u>	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 03:14  02/25/22 03:14  02/25/22 03:14  Analyzed  02/25/22 03:14	Dil Fac
Total TPH  Method: 8015B NM - Diesel Randanalyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane o-Terphenyl	81.7  ge Organics (D  Result  <50.0  81.7  <50.0  %Recovery  88  86  comatography -	RO) (GC) Qualifier U	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	<u> </u>	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 03:14  02/25/22 03:14  02/25/22 03:14  Analyzed  02/25/22 03:14	Dil Fac

Client Sample ID: BH07

Date Collected: 02/18/22 10:55 Date Received: 02/23/22 11:26

Sample Depth: 4

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

**Eurofins Carlsbad** 

Lab Sample ID: 890-2003-2

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 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

Client Sample ID: BH07 Lab Sample ID: 890-2003-2

Date Collected: 02/18/22 10:55 Matrix: Solid
Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8021B - Volatile Orga	nic Compounds (	(GC) (Conti	nued)					
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 BT	EX 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 Ran	ige Organics (DR	O) (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 Ra	ange Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		02/24/22 15:51	02/25/22 03:35	1
C10-C28)								

Oll 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 Chroma	atography - 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

Lab Sample ID: 890-2003-3

Date Collected: 02/18/22 11:00

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

**Total TPH** 

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 B	TEX 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
•		0) (00)						
Method: 8015 NM - Diesel Rai	nge Organics (DR	U) (GC)						

**Eurofins Carlsbad** 

02/25/22 15:07

50.0

mg/Kg

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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

Client: WSP USA Inc.

Project/Site: RDU 11

Lab Sample ID: 890-2003-3

Matrix: Solid

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (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
Oll 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 Chro	omatography -	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

Date Collected: 02/18/22 11:10

Date Received: 02/23/22 11:26

Sample Depth: 4

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 (DR	O) (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 Rang	je Organics (Di	RO) (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
Oll 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

**Eurofins Carlsbad** 

Released to Imaging: 2/8/2024 11:50:58'AM

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Job ID: 890-2003-1

Client: WSP USA Inc. Project/Site: RDU 11 SDG: 31403360.03

**Client Sample ID: BH08** Date Collected: 02/18/22 11:10

Lab Sample ID: 890-2003-4

Date Received: 02/23/22 11:26

Matrix: Solid

Sample Depth: 4

	Method: 300.0 - Anions, Ion Chrom	natography -	Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
L	Chloride	12.9		4.98	mg/Kg			02/27/22 14:51	1

Client Sample ID: BH09 Lab Sample ID: 890-2003-5

Date Collected: 02/18/22 12:30 Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 22:15	
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)			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	X 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 Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Austraad	D!! F
Allalyto	ittosuit	Qualifici						
Total TPH	<40.0	П			_ =	Trepareu	Analyzed	
Total TPH	<49.9	U	49.9	mg/Kg	_ =		02/25/22 15:07	
· <sup>· · ·</sup>					=			Dil Fac
: Method: 8015B NM - Diesel Rang	ge Organics (D					Prepared		
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10	ge Organics (D	RO) (GC) Qualifier	49.9	mg/Kg	_ =		02/25/22 15:07	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (D	RO) (GC)  Qualifier	49.9	mg/Kg	_ =	Prepared	02/25/22 15:07  Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D Result <49.9	RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg	_ =	Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed  02/25/22 04:57	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D Result <49.9	RO) (GC) Qualifier U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed  02/25/22 04:57  02/25/22 04:57	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D Result <49.9 <49.9	RO) (GC) Qualifier U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 04:57 02/25/22 04:57	Dil Face 1 1 1 Dil Face
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	ge Organics (D Result <49.9 <49.9 <49.9 %Recovery	RO) (GC) Qualifier U	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51 Prepared	02/25/22 15:07  Analyzed 02/25/22 04:57 02/25/22 04:57 02/25/22 04:57  Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	ge Organics (D Result <49.9 <49.9 <49.9 **Recovery 81 83	RO) (GC) Qualifier U U Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 04:57 02/25/22 04:57  02/25/22 04:57  Analyzed 02/25/22 04:57	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D  Result  <49.9  <49.9  <49.9   **Recovery**  81  83  omatography -	RO) (GC) Qualifier U U Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	_ =	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 04:57 02/25/22 04:57  02/25/22 04:57  Analyzed 02/25/22 04:57	1

Matrix: Solid

Lab Sample ID: 890-2003-6

# **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

Client Sample ID: BH09

Date Collected: 02/18/22 12:45 Date Received: 02/23/22 11:26

Sample Depth: 4

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	X 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
_	•	O) (GC)						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH		Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/25/22 15:07	
Analyte Total TPH	Result   <50.0	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Ran	Result  <50.0 ge Organics (D)	Qualifier U RO) (GC)	50.0	mg/Kg	=		02/25/22 15:07	1
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte	Result <50.0  Ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier	50.0	mg/Kg	<u>D</u>	Prepared	02/25/22 15:07  Analyzed	1 Dil Fac
Analyte	Result  <50.0 ge Organics (D)	Qualifier U  RO) (GC) Qualifier	50.0	mg/Kg	=		02/25/22 15:07	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0  Ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	50.0	mg/Kg	=	Prepared	02/25/22 15:07  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  ge Organics (Dige Result <50.0)	Qualifier U  RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg  Unit  mg/Kg	=	Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed  02/25/22 05:17	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 05:17 02/25/22 05:17	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/24/22 15:51 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 05:17 02/25/22 05:17	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51 Prepared	02/25/22 15:07  Analyzed 02/25/22 05:17 02/25/22 05:17 02/25/22 05:17 Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 05:17  02/25/22 05:17  02/25/22 05:17  Analyzed 02/25/22 05:17	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/24/22 15:51 02/24/22 15:51 02/24/22 15:51  Prepared 02/24/22 15:51	02/25/22 15:07  Analyzed 02/25/22 05:17  02/25/22 05:17  02/25/22 05:17  Analyzed 02/25/22 05:17	Dil Fac  1  1  1  Dil Fac

Client Sample ID: BH10

Date Collected: 02/18/22 13:05

Date Received: 02/23/22 11:26

Sample Depth: 0.5

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	

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Lab Sample ID: 890-2003-7

**Client Sample ID: BH10** 

Lab Sample ID: 890-2003-7 Date Collected: 02/18/22 13:05 Matrix: Solid 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	Resu		RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	166	0	250	mg/Kg			02/25/22 15:07	1

	itteaut	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
(Over	1660		250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
C28-C36)	<250	U	250	mg/Kg		02/24/22 15:51	02/25/22 05:38	5
·	%Recovery	Qualifier	l imits			Prenared	Analyzed	Dil Fac
	( <b>Over</b> r C28-C36)	(Over 1660 r C28-C36) <250	(Over 1660	(Over 1660 250 r C28-C36) <250 U 250	(Over 1660 250 mg/Kg r C28-C36) <250 U 250 mg/Kg	(Over 1660 250 mg/Kg r C28-C36) <250 U 250 mg/Kg	(Over 1660 250 mg/Kg 02/24/22 15:51 r C28-C36) <250 U 250 mg/Kg 02/24/22 15:51	(Over 1660 250 mg/Kg 02/24/22 15:51 02/25/22 05:38 r C28-C36) <250 U 250 mg/Kg 02/24/22 15:51 02/25/22 05:38

Janogate	Miccovery	Quanner	Lillies	rrepared	Analyzea	Dii i u
1-Chlorooctane	54	S1-	70 - 130	02/24/22 15:51	02/25/22 05:38	
o-Terphenyl	81		70 - 130	02/24/22 15:51	02/25/22 05:38	5

Method: 300.0	- Anions, I	ion Chr	omatograpi	ny - 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	c Compounds (GC)

	- /						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
<0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
< 0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
< 0.00199	U	0.00199	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
<0.00398	U	0.00398	mg/Kg		03/01/22 08:30	03/01/22 23:16	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
105		70 - 130			03/01/22 08:30	03/01/22 23:16	1
101		70 - 130			03/01/22 08:30	03/01/22 23:16	1
	Result <0.00199 <0.00199 <0.00199 <0.00398 <0.00199 <0.00398  %Recovery  105		Result         Qualifier         RL           <0.00199	Result         Qualifier         RL         Unit           <0.00199	Result         Qualifier         RL         Unit         D           <0.00199	Result         Qualifier         RL         Unit         D         Prepared           <0.00199	Result Qualifier         RL         Unit         D         Prepared         Analyzed           <0.00199 U

#### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	ma/Ka			02/28/22 10:23	1

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

Matrix: Solid

Lab Sample ID: 890-2003-8

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

Client Sample ID: BH10

Date Collected: 02/18/22 13:20 Date Received: 02/23/22 11:26

Sample Depth: 4

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 04:36	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/25/22 04:36	1
C10-C28)								
OII 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 Chro	omatography -	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

Date Collected: 02/18/22 13:30

Lab Sample ID: 890-2003-9

Matrix: Solid

Date Received: 02/23/22 11:26

Sample Depth: 0.5

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 (DR	O) (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 Rang	je Organics (D	RO) (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
Oll 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

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Job ID: 890-2003-1

Client: WSP USA Inc. Project/Site: RDU 11 SDG: 31403360.03

**Client Sample ID: BH11** Lab Sample ID: 890-2003-9

Date Collected: 02/18/22 13:30 Matrix: Solid Date Received: 02/23/22 11:26

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chroma	atography - S	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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/01/22 08:30	03/01/22 23:57	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/22 08:30	03/01/22 23:57	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/01/22 08:30	03/01/22 23:57	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	105		70 - 130			03/01/22 08:30	03/01/22 23:57	
1,4-Difluorobenzene (Surr)	103		70 - 130			03/01/22 08:30	03/01/22 23:57	
· Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/28/22 10:23	
Mothod: 8015 NM - Diosol Pango	o Organice (DP)	O) (GC)						
Method: 8015 NM - Diesel Range Analyte Total TPH		Qualifier	<b>RL</b>	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 02/25/22 15:07	
Analyte Total TPH		Qualifier U			<u>D</u>	Prepared		Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Ranç	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg		<u> </u>	02/25/22 15:07	
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	50.0	mg/Kg		Prepared	02/25/22 15:07 Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)		Qualifier U  RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg  Unit  mg/Kg		Prepared 02/25/22 08:25	02/25/22 15:07  Analyzed  02/25/22 17:25	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/25/22 08:25 02/25/22 08:25	02/25/22 15:07  Analyzed  02/25/22 17:25  02/25/22 17:25	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL 50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/25/22 08:25 02/25/22 08:25 02/25/22 08:25	02/25/22 15:07  Analyzed 02/25/22 17:25 02/25/22 17:25	Dil Fa
Analyte	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/25/22 08:25 02/25/22 08:25 02/25/22 08:25 Prepared	02/25/22 15:07  Analyzed 02/25/22 17:25 02/25/22 17:25 02/25/22 17:25 Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/25/22 08:25 02/25/22 08:25 02/25/22 08:25  Prepared 02/25/22 08:25	02/25/22 15:07  Analyzed 02/25/22 17:25 02/25/22 17:25  Analyzed 02/25/22 17:25	Dil Fa

02/27/22 16:19

25.3

mg/Kg

3220

Chloride

# **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

Method: 8021B - Volatile Organic Compounds (GC)

latrix: Solid Prep Type: Total/NA

70-130) 106 98	
106	
91	
94	
95	
92	
97	
93	
102	
101	
90	
103	
73	
75	
99	
101	
124	
103	
102	
98	
101	
	102 98

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
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
380-11670-A-1-D MS	Matrix Spike	69 S1-	73	
880-11670-A-1-E MSD	Matrix Spike Duplicate	82	77	
390-2003-1	BH07	88	86	
90-2003-2	BH07	96	98	
390-2003-3	BH08	76	74	
390-2003-4	BH08	98	100	
390-2003-5	BH09	81	83	
390-2003-6	BH09	83	85	
390-2003-7	BH10	54 S1-	81	
390-2003-8	BH10	84	89	
390-2003-9	BH11	89	85	
390-2003-10	BH11	113	116	
890-2004-A-1-E MS	Matrix Spike	94	81	
390-2004-A-1-F MSD	Matrix Spike Duplicate	92	80	
_CS 880-20293/2-A	Lab Control Sample	80	81	
_CSD 880-20293/3-A	Lab Control Sample Dup	103	104	
MB 880-20293/1-A	Method Blank	105	115	

# **Surrogate Summary**

Client: WSP USA Inc. Project/Site: RDU 11 1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-2003-1 SDG: 31403360.03

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA** 

				Percent Surrogate Recovery (Accepta
		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. Job ID: 890-2003-1 SDG: 31403360.03 Project/Site: RDU 11

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

	MB	MB						
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 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

MB MB

Surrogate	%Recovery Qua	alifier 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

	<b>Бріке</b>	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery	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** 

Analyte

**Analysis Batch: 20577** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 20526

> 35 35

RPD %Rec. %Rec Limits Limit 35 35 35

Benzene	0.100	0.1030	mg/Kg	103	70 - 130	6	
Toluene	0.100	0.09946	mg/Kg	99	70 - 130	6	
Ethylbenzene	0.100	0.1007	mg/Kg	101	70 - 130	6	
m-Xylene & p-Xylene	0.200	0.2324	mg/Kg	116	70 _ 130	7	
o-Xylene	0.100	0.1148	mg/Kg	115	70 - 130	9	

Spike

Added

LCSD LCSD

Result Qualifier

Unit

LCSD LCSD

Surrogate	%Recovery 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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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Page 15 of 37

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2009-A-3-G MS

**Matrix: Solid Analysis Batch: 20577** 

Prep Batch: 20526 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 2.379 F1 Ethylbenzene <0.0498 U F1 F2 0.101 2360 70 - 130 mg/Kg m-Xylene & p-Xylene <0.0996 UF1F2 0.202 9.133 F1 mg/Kg 4530 70 - 130 0.101 o-Xylene <0.0498 UF1F2 4.163 F1 mg/Kg 4130 70 - 130

MS MS

Surrogate	%Recovery 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

Client Sample ID: Matrix Spike

Prep Type: Total/NA

MSD MSD Sample Sample Spike %Rec. RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit %Rec 0.0996 0.9509 F1 Benzene <0.0498 UF1 mg/Kg 955 70 - 130 16 35 Toluene 0.0996 2515 <0.0498 UF1F2 2.505 F1 F2 mg/Kg 70 - 130 43 35 Ethylbenzene <0.0498 UF1F2 0.0996 3.505 F1 F2 3519 70 - 130 38 35 mg/Kg <0.0996 UF1F2 0.199 15.01 F1 F2 7534 70 - 130 49 35 m-Xylene & p-Xylene mq/Kq 0.0996 <0.0498 U F1 F2 7.358 F1 F2 7387 70 - 130 55 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery Qu	ıalifier	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

MB MB

Analyte	Result	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

MB MB

Surrogate	%Recovery	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

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

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-20605/1-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 20710** Prep Batch: 20605 LCS LCS Snike

	Орис	E00 E00				/01 <b>100</b> .	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	
o-Xylene	0.100	0.1072	mg/Kg		107	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	124		70 - 130

Lab Sample ID: LCSD 880-20605/2-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** Prep Type: Total/NA Prep Batch: 20605 **Analysis Batch: 20710** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 97 70 - 130 1,4-Difluorobenzene (Surr) 102 70 - 130

Lab Sample ID: 880-11907-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 20710** 

o-Xylene

Spike MS MS Sample Sample %Rec. Result Qualifier Analyte Result Qualifier Added Unit %Rec Limits Benzene <0.00200 U 0.101 0.07733 mg/Kg 77 70 - 130 Toluene <0.00200 UF1 0.101 0.06553 F1 mg/Kg 65 70 - 130 Ethylbenzene <0.00200 UF1 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 <0.00200 U 0.101 0.07034

mg/Kg

70

70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1 4-Difluorobenzene (Surr)	106		70 - 130

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 880-11907-A-1-C MSD

**Matrix: Solid** 

**Analysis Batch: 20710** Prep Batch: 20605

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

**Eurofins Carlsbad** 

Prep Type: Total/NA

Prep Batch: 20605

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

MSD MSD

%Recovery Qualifier Surrogate Limits 4-Bromofluorobenzene (Surr) 94 70 - 130 1,4-Difluorobenzene (Surr) 98 70 - 130

Lab Sample ID: CB MB Client Sample ID: Method Blank

**Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 20710** 

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <0.00200 U 0.00200 03/02/22 17:14 Benzene mg/Kg Toluene <0.00200 U 0.00200 mg/Kg 03/02/22 17:14 <0.00200 U 0.00200 mg/Kg 03/02/22 17:14 Ethylbenzene m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 03/02/22 17:14 o-Xylene <0.00200 U 0.00200 mg/Kg 03/02/22 17:14 Xylenes, Total <0.00400 U 0.00400 mg/Kg 03/02/22 17:14

MB MB

Surrogate	%Recovery	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	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	02/24/22 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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/24/22 15:51	02/24/22 21:01	1

MB MB

MB MB

Surrogate	%Recovery 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

Released to Imaging: 2/8/2024 11250:58 AM

**Matrix: Solid** 

**Analysis Batch: 20195** 

Client Sample ID: Lab Control Sample	
--------------------------------------	--

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	808.4		mg/Kg		81	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1182		mg/Kg		118	70 - 130	
040,000)								

C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	132	S1+	70 - 130
o-Terphenyl	136	S1+	70 - 130

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Prep Batch: 20253

Client: WSP USA Inc. Job ID: 890-2003-1 Project/Site: RDU 11

SDG: 31403360.03

Prep Batch: 20253

Prep Type: Total/NA

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: LCSD 880-20253/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 20195 Prep Batch: 20253

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	876.2		mg/Kg		88	70 - 130	8	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1084		mg/Kg		108	70 - 130	9	20	
C10-C28)										

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	128		70 - 130

LCSD LCSD

Lab Sample ID: 880-11670-A-1-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

**Analysis Batch: 20195** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1187		mg/Kg		114	70 - 130	
Diesel Range Organics (Over	<50.0	U	1000	1120		mg/Kg		112	70 - 130	

C10-C28)

	MS	MS	
Surrogate	%Recovery	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									Prep	Batch:	20253
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1007		mg/Kg		97	70 - 130	16	20
Diesel Range Organics (Over	<50.0	U	998	1187		mg/Kg		119	70 - 130	6	20

C10-C28)

	MSD	WSD	
Surrogate	%Recovery	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 Sam	ple ID: Method Blank
	Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

Prep Batch: 20293

	MB	MB						
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 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

Client: WSP USA Inc. Job ID: 890-2003-1 SDG: 31403360.03 Project/Site: RDU 11

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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/25/22 08:2	02/25/22 12:36	1
o-Terphenyl	115		70 - 130	02/25/22 08:2	25 02/25/22 12:36	1

Lab Sample ID: LCS 880-20293/2-A **Client Sample ID: Lab Control Sample** 

Matrix: Solid

**Analysis Batch: 20308** 

Prep Type: Total/NA

Prep Batch: 20293

_	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	797.2		mg/Kg		80	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	928.5		mg/Kg		93	70 - 130
C10-C28)							

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: LCSD 880-20293/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 20308** 

Prep Type: Total/NA

Prep Batch: 20293

	<b>Spike</b>	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	821.5		mg/Kg		82	70 - 130	3	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1019		mg/Kg		102	70 - 130	9	20	
C10-C28)										

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	103	70 - 130
o-Terphenyl	104	70 - 130

Lab Sample ID: 890-2004-A-1-E MS Client Sample ID: Matrix Spike **Matrix: Solid** 

Prep Type: Total/NA

**Analysis Batch: 20308** 

Prep Batch: 20293 Sample Sample Spike MS MS %Rec.

									,	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	1000	1240		mg/Kg		124	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	1000	1269		mg/Kg		127	70 - 130	
C10-C28)										

MS MS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	94	70 - 130
o-Terphenyl	81	70 - 130

Client: WSP USA Inc. Job ID: 890-2003-1 Project/Site: RDU 11

SDG: 31403360.03

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

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Lab Sample ID: 890-2004-A-1- Matrix: Solid Analysis Batch: 20308	F MSD					CI	ient Sa	nt Sample ID: Matrix Spike Dupli Prep Type: Tota Prep Batch: 2				
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									

70 - 130

70 - 130

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-20217/3-A

1-Chlorooctane

o-Terphenyl

Lab Sample ID: MB 880-20217/1-A Matrix: Solid Analysis Batch: 20409						Client Sa	ample ID: Metho Prep Type:	
Analyte		MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/27/22 12:29	1
					CI	iont Sample	ID: Lab Control	Sample

Lab Sample ID: LCS 880-2021//2-A			Client Sample ID: Lab Control Sample
Matrix: Solid			Prep Type: Soluble
Analysis Batch: 20409			
	Spike	LCS LCS	%Rec.
l	Matrix: Solid	Matrix: Solid Analysis Batch: 20409	Matrix: Solid Analysis Batch: 20409

Analyte         Added Chloride         Result 250         Qualifier 252.6         Unit mg/Kg         D with mg/Kg         D mg/Kg         Limits 100		Opino						701100.
Chloride         250         252.6         mg/Kg         101         90 - 110	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
	Chloride	 250	252.6		mg/Kg		101	90 - 110

Matrix: Solid Analysis Batch: 20409							Prep	Type: So	oluble	
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	252.6		mg/Kg		101	90 - 110	0	20
Lab Sample ID: 890-2003-5 MS							Client San	nple ID:	BH09

	0	0	140 140	0/ D
Analysis Batch: 20409				
Matrix: Solid				Prep Type: Soluble
Lab Sample ID. 030-2003-3 MS				Chefit Sample ID. Billos

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	365		253	614.6		mg/Kg		99	90 - 110	

Lab Sample ID: 890-2003-5 MSD	Client Sample ID: BH09
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 20409	

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	365		253	611.6		mg/Kg		97	90 - 110	1	20

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**Client Sample ID: Lab Control Sample Dup** 

Client: WSP USA Inc. Job ID: 890-2003-1 Project/Site: RDU 11 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	<u> </u>
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 Batcl
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	

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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	

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 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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

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Page 24 of 37

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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

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**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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2003-2

Date Collected: 02/18/22 10:55 Matrix: Solid

Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2003-3

Date Collected: 02/18/22 11:00 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2003-4

Date Collected: 02/18/22 11:10 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

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Page 26 of 37

**Matrix: Solid** 

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

Client Sample ID: BH08

Lab Sample ID: 890-2003-4

Date Collected: 02/18/22 11:10

Date Received: 02/23/22 11:26

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2003-5

Date Collected: 02/18/22 12:30 Matrix: Solid

Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2003-6

Date Collected: 02/18/22 12:45 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2003-7

Date Collected: 02/18/22 13:05 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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**Matrix: Solid** 

Client: WSP USA Inc. Project/Site: RDU 11

Job ID: 890-2003-1 SDG: 31403360.03

Lab Sample ID: 890-2003-7

Matrix: Solid

Date Collected: 02/18/22 13:05 Date Received: 02/23/22 11:26

**Client Sample ID: BH10** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	20217	02/24/22 12:03	СН	XEN MID
Soluble	Analysis	300.0		1			20409	02/27/22 15:35	CH	XEN MID

**Client Sample ID: BH10** Lab Sample ID: 890-2003-8

Date Collected: 02/18/22 13:20 **Matrix: Solid** 

Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2003-9

Date Collected: 02/18/22 13:30 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2003-10

Date Collected: 02/18/22 13:45 Date Received: 02/23/22 11:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

**Eurofins Carlsbad** 

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**Matrix: Solid** 

#### **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

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# **Accreditation/Certification Summary**

 Client: WSP USA Inc.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 SDG: 31403360.03

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		rogram	Identification Number	Expiration Date 06-30-22	
		ELAP	T104704400-21-22		
The following analytes the agency does not of		ut the laboratory is not certifi	ed by the governing authority. This list ma	y include analytes for wh	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		

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# **Method Summary**

Job ID: 890-2003-1 Client: WSP USA Inc. Project/Site: RDU 11 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.
 Job ID: 890-2003-1

 Project/Site: RDU 11
 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

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Chain of Custody

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Hobbs, MM (57-980-7500)   Promin, 22 (180-950)   Address	Revised Date 051418 Rev 2018 1		6									G
REQUEST  REQ			N	lia	2	e e		+	OC (1/2			S Charles
REQUEST  REQ	Date/Time	Received by: (Signature)		ne	Date/Tin	7	(e)	y: (Signatur	Received b	)	y: (Signature)	Relinquished b
REQUEST  REQ	]							9		and a so		
REQUEST  Reporting: Level		ard terms and conditions tances beyond the control evicusly negotiated.	liates and subcontractors. It assigns stands the client if such losses are due to circums! zed. These terms will be enforced unless pr	incurred by	expenses	losses or	hase order from onsibility for any	tes a valid purc sume any resp	amples constitutions and shall not as	shment of s t of samples	document and relinquite liable only for the cost	Notice: Signature of this of service. Xenco will be of Xenco. A minimum of
	1/4/0//4/1:Hg			Sa Be C	Sb As E	CRA	P 6010: 8R	CLP / SPL	alyzed	to be ana	d(s) and Metal(s)	Circle Method
Manager:   Joseph Hernandez	Sn U V Zn	K Se Ag SiO2	Cd Ca Cr Co Cu	Be	As	≥	M Texas 1	CRA 13PF	8A:	020:		Total 200.7/6
Manager:   Joseph Hernandez	Discrete			-	$\vdash$	1	4'		2/18/2022	S		ВН
Manager   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Joseph Hernandez   Mork Order Company Name   WSP USA   Joseph Hernandez   Mork Order Company Name   WSP USA   Joseph Hernandez   Mork Order Company Name   WSP USA   Joseph Hernandez   Joseph Hernandez   WSP USA   Joseph Hernandez	Discrete				-	_	0.5		2/18/2022	S		BH:
Manager:   Joseph Hernandez   Hobbs MM   675-982-7550  Phoenix, X2   480-95000   Allania, GA   770-449-9800  Tampa FL (813-820-2000)     WWW. M2FD   Coopen   Manager   WSP   USA   WSP	Discrete				-	-	4.		02/18/22	S		BH.
Manager:   Joseph Hernandez   Hobbs:MM(575-982-7550) Phoemix,Cx (480-9500) Allemin,GA (770-449-9800) Tampa FL (813-620-2000)   Wat Name:   MSP USA   MSP U	Discrete			⊢	-		0.5'	L.	02/18/22	S		ВН
	Discrete			<u>.</u>	-	_	4.		02/18/22	S		BH
Manager:   Joseph Hernandez   Selection   Joseph Hernandez   Selection   Joseph Hernandez   Selection   Joseph Hernandez   Selection   Joseph Hernandez   Selection   Joseph Hernandez   Selection	Discrete			-	-		0.5'		02/18/22	S		BH
Manager:   Joseph Hernandez	Discrete			-	H		4'	11:10	02/18/22	S		BH
Manager:   Joseph Hernandez	Discrete			-	$\vdash$	_	0.5'	L	02/18/22	S		BH
Manager:   Joseph Hernandez   Hobbs,NM (576-382-7550)   PhoenixAZ (480-355-0900)   Alamas (AA (770-449-8800)   Tampa,FL (813-620-2000)   Work Order Commy Name:   WSP USA   Gompany Name:   Milland, TX, 79705   Bill to: (I different)   Joseph Hernandez   WSP USA   Gompany Name:   3300 N A Street   3300 N A Street   3300 N A Street   3300 N A Street   Gompany Name:   Milland, TX, 79705   Milland, TX, 7970	Discrete			-		-	4'	10:55	02/18/22	S		BH
Manager:   Joseph Hernandez   Bill to: (#different)   Joseph Hernandez   WSP USA   Street   3300 N A Street   3300 N	Discrete			H	$\vdash$	-	0.5'	L	02/18/22	S		BH
Manager:         Joseph Hernandez         Bill to: (if different)         Joseph Hernandez         www.xenco.com)         www.xenco.com	mple Comments	Sar		-		Numb	Depth	Time Sampled	Date Sampled	Matrix	ntification	Sample Ide
Manager:   Joseph Hernandez   Bill to: (# 6#leven)   Joseph Hernandez   WSP USA   Gompany Name:   WSP USA   Gompany Name:   WSP USA   Gompany Name:   WSP   WSP USA   Gompany Name:   WSP   WSP USA   Gompany Name:   WSP   WSP   Gompany Name:   WSP   Gompany Name:   WSP   Gompany Name:   WSP   Gompany Name:   WSP   Gompany Name:   WSP   Gompany Name:   WSP   Gompany Name:   Midland, TX, 79705   Email:   Address:   Anna Byers@wsp.com   ANALYSIS REQUEST   Generalites: EDD   ADaPT   Manager:   Napp2200728755   Rush:   Gilbert Moreno   Due Date:   Gilbert Moreno   Due Date:   Gilbert Moreno   Thermometer:   Thermometer	History at Sophia	iau		_	-	er c		Containers:	lotal	11/	Yes	Sample Custody Se
Manager:   Joseph Hernandez   Bill to: (il different)   Joseph Hernandez   WSP USA   Company Name:   WSP USA   Company Name:   WSP USA   Company Name:   WSP USA   Street   Address:   3300 N A Street   Address:   3300 N A Street   Midland, TX, 79705   City, State ZIP:   Midland, TX, 79705   Email:   Address: Anna Byers@wsp.com   ANALYSIS REQUEST   Reporting: Level III   Gev	ts the day recevied by the	TAT star		-	-	of Co	0	ction Factor:	Corre		Yes	Cooler Custody Sea
Manager:   Joseph Hernandez   Hobbs.NM (575-392-7550) Phoenix.AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-670-2000)   Www.xenco.com		hain of Custody	890-2003 C	-	1	nta	1		M	No	(Yes	Received Intact:
Manager:   Joseph Hernandez   Bill to: (It different)   Joseph Hernandez   WSP USA   Company Name:   WSP USA   Company Name:   WSP USA   Company Name:   WSP   Midland, TX, 79705   City, State ZIP:   Midland, TX, 79705   Email:   Address: Anna.Byers@wsp.com   ANALYSIS REQUEST   Midland: Ts Name:   Napp2200728755   Rush:   No   Wet Ice:   Yeş No   Yeş No				_	,	iner	70	ermometer I	{	9	1.8	Temperature (°C):
Manager:         Joseph Hernandez         Bill to: (li different)         Joseph Hernandez         Work Order Com           ny Name:         WSP USA         Company Name:         WSP         WSP         WSP         WSP         WSP         WSP         WSP         WSP         Program: UST/PST         □RP         □rownfield         State of Project:         Reporting: Level III         □rownfield         State of Project:         Name:         Name:         Reporting: Level III         □rownfield         Name:         Name:         Reporting: Level III         □rownfield         Name:         Name:         Reporting: Level III         □rownfield         Name:         Name:         Routine         Analysis recurs         Name:         Name: </td <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>s</td> <td></td> <td>Wet Ice:</td> <td>1-1</td> <td>p Blank:</td> <td></td> <td>SAMPLE REC</td>					_	s		Wet Ice:	1-1	p Blank:		SAMPLE REC
Manager:         Joseph Hernandez         Bill to: (if different)         Joseph Hernandez         Work Order Commy Name;         WSP USA         Company Name;         WSP         WSP         WSP         WSP         WSP         WSP UST/PST         Mork Order Commy Name;         WSP         WSP         WSP         WSP         WSP         WSP         Program: UST/PST         Program: UST/PST         PRP ☐ rownfield         Work Order Comm         WSP         WSP         WSP         WSP         Program: UST/PST         PRP ☐ rownfield         WSP III ☐ PRP ☐ rownfield         State of Project:         ADAPT         III ☐ NUST         State of Project:         ADAPT         III ☐ NUST         ADAPT         III ☐ NUST         ADAPT         III ☐ NUST         ADAPT         III ☐ NUST         ANALYSIS REQUEST         Beliverables: EDD         ADAPT         III ☐ NUST         ANALYSIS REQUEST         ANAL	A.2021.04159.EXP.01	API:P					)ate:	Due [	,		Gilbert Moreno	Sampler's Name:
Manager:         Joseph Hernandez         Bill to: (# different)         Joseph Hernandez         Www.xenco.com         Pag         Www.xenco.com         Pag         Work Order Comm         Program: UST/PST	137631001	cc:1						Rush		)728755	Napp2200	P.O. Number:
Name:   RDU 11   Noseph Hernandez   Hobbs,NM (575-392-7550)   Phoenix,AZ (480-355-0900) Attanta,GA (770-449-8800)   Tampa,FL (813-620-2000)   www.xenco.com   Yage   Wa					_		ne Eq	Routi	.03	1403360	ω	Project Number:
Manager:         Joseph Hernandez         Bill to: (il different)         Joseph Hernandez         WSP USA         WSP USA         WSP USA         Address:         3300 N A Street         Address:         3300 N A Street         Midland, TX, 79705         Address: Anna. Byers@wsp.com         Midland, TX, 79705         Midland, TX, 79705         Email: Address: Anna. Byers@wsp.com         Midland, TX, 79705         Midland, TX, 79705         Email: Address: Anna. Byers@wsp.com         Midland, TX, 79705         Deliverables: EDD         Www.xenco.com         **Age         Work Order Comments           WSP         WSP         WSP         Program: UST/PST	ork Order Notes	Wo					rn Around	Tu			RDU 11	Project Name:
WSP USA         Company Name         Address:         3300 N A Street         Address:         300 N A Street         Address:         300 N A Street         Midland, TX, 79705         City, State ZIP:         Midland, TX, 79705         Midland, TX, 79705         Midland, TX, 79705         Work Order Comments         Work Order Comments         Program: UST/PST         PROGRAM         PROGRA	Other:	ADaPi	Del	.com	rs@wsp	na.Bye	Address: An	Email:			281-702-2329	Phone:
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) Work Order Comments  WSP USA  3300 N A Street  Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) Work Order Comments  WSP USA  3300 N A Street  Address:  3300 N A Street  State of Project:	HP LIVELIV	level III   I/USI	Rep	TX, 79705	Aidland,		City, State ZIF			705	Midland, TX, 79	City, State ZIP:
Joseph Hernandez       Hobbs, NM (575-392-7550) Phoenix,AZ (480-355-0900) Attanta,GA (770-449-8800) Tampa,FL (813-620-2000)       www.xenco.com		# # # # # # # # # # # # # # # # # # #		Street	300 N A	(2)	Address:				3300 N A Street	Address:
Hobbs, NM (575-392-7550)   Phoenix, AZ (480-355-0900)   Atlanta, GA (770-449-8800)   Tampa, FL (813-620-2000)   Www.xenco.com		□RP □rownfields	Pro		VSP		Company Nar				WSP USA	Company Name:
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com	S	Work Order Comment		ernandez	oseph H		Bill to: (if differen			dez	Joseph Hernand	Project Manager:
	] Of		1 (770-449-8800) Tampa,FL (813-620-20	Atlanta,G/	355-0900)	AZ (480-3	550) Phoenix,	VM (575-392-7	Hobbs,			(
			Houston, IX (261) 240-4200 Dallas, IX (∠14) 902-0300 Sall Antollio, IX (∠10) 309-303+	) 302,000	3, 1 \ (2 14	UU Dalla	X (281) 240-42	Housion,				

**Eurofins Carlsbad** 

1089 N Canal St.

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Chain of Custody Record

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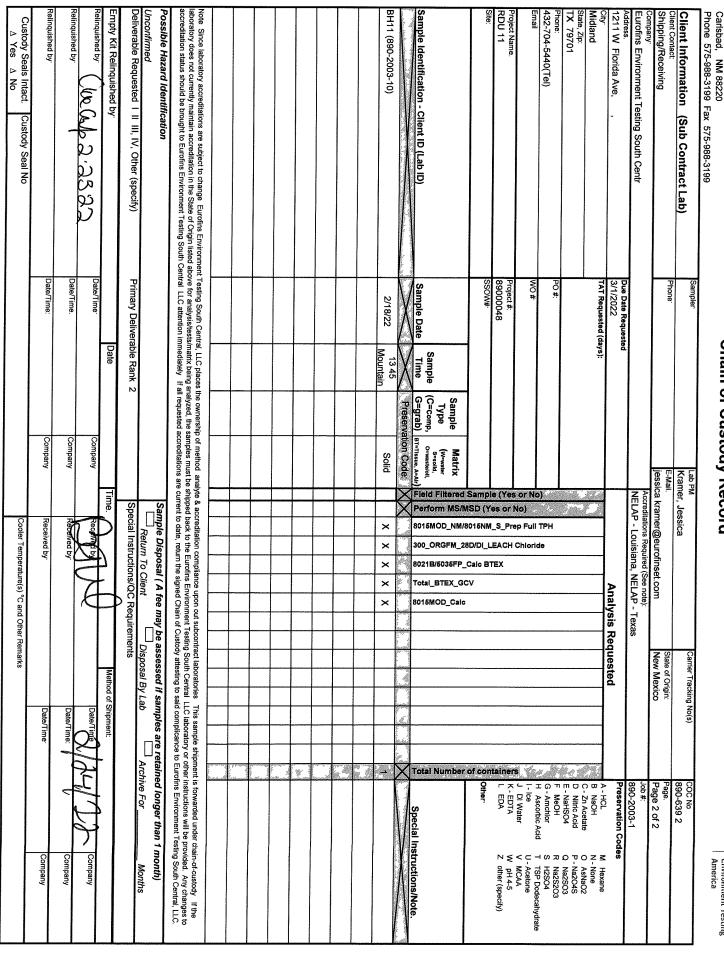
**Environment Testing** 

Project Name RDU 11 State Zip TX, 79701 ВН09 (890-2003-5) BH07 (890-2003-2) BH07 (890-2003-1) Midland Carlsbad NM 88220 Phone: 575-988-3199 Fax 575-988-3199 BH10 (890-2003-8) BH08 (890-2003-4) BH08 (890-2003-3) 1211 W Florida Ave Eurofins Environment Testing South Centre vote 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 aboratory of the samples are 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 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. BH11 (890-2003-9) BH10 (890-2003-7) BH09 (890-2003-6) Sample Identification - Client ID (Lab ID) 432-704-5440(Tel) Client Information (Sub Contract Lab Possible Hazard Identification impty Kit Relinquished by elinquished by linquished by: eliverable Requested I II III IV Other (specify) າipping/Receiving inquished by offer and Custody Seal No 2-28-22 Project #: 89000048 PO # Due Date Requested 3/1/2022 Phone. Primary Deliverable Rank TAT Requested (days) Date/Time Sample Date 2/18/22 2/18/22 2/18/22 2/18/22 2/18/22 2/18/22 2/18/22 2/18/22 2/18/22 Mountain 10 55 Date Mountain 13 30 Mountain 13 20 Mountain 13 05 Mountain 12 30 Mountain 11 10 Mountain 11 00 Mountain 12 45 Mountain Sample 10 45 (C=comp, G=grab) Sample Type Preservation Code: Company Company Company Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Kramer, Jessica essica.kramer@eurofinset com IIme Accreditations Required (See note):
NELAP - Louisiana, NELAP - Texas Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Moni × B015MOD\_NM/8015NM\_S\_Prep Full TPH Cooler Temperature(s) °C and Other Remarks. × × × × × × × × Received by × × × × × × × × × 300\_ORGFM\_28D/DI\_LEACH Chloride × ×  $\times$ × × × 8021B/6036FP\_Calc BTEX Total\_BTEX\_GCV × × × × × × × × × Analysis Requested 8015MOD\_Calc × × × × × × × × × State of Origin New Mexico Carrier Tracking No(s) Method of Shipment **Total Number of containers** n<mark>erti</mark>g 48, A HCL B NaOH C. Zn Acetate D Nitric Acid E. NaHSO4 F MeOH G-Amchlor H Ascorbic Acid 1- Ice J DI Water K-EDTA COC No: 890-639 1 Preservation Codes. Page 1 of 2 390-2003-1 Special Instructions/Note M - Hexane
N - None
O - AsNaO2
P NaZO4S
Q NaZSO3
R NaZS2O3
S HZSO4
T - TSP Dodecahydrate
U Acetone
V - MCAA
W pH 4-5
Z other (specify) Company Company Ver 06/08/2021

Eurofins 1089 N Cana

Calispad il St IM 88220	Chain of Custody Record	tody Record		eurofins Environment Testing
988-3199 Fax 575-988-3199				Allenca
	Sampler	Lab PM	Carrier Tracking No(s)	COC No
rmation (Sub Contract Lab)		Kramer, Jessica		890-639 2
	Phone:	E-Mail.	State of Origin:	Page.
CIVILIS		jessica kramer@eurofinset.com	New Mexico	Page 2 of 2
rooment Testing Couth Contr		Accreditations Required (See note):		Job #:
HOLLIGHT LESKING SOUTH CELLS		NELAP - Louisiana, NELAP - Texas		890-2003-1



Ver: 06/08/2021

# **Login Sample Receipt Checklist**

 Client: WSP USA Inc.
 Job Number: 890-2003-1

 SDG Number: 31403360.03

List Source: Eurofins Carlsbad

Login Number: 2003 List Number: 1 Creator: Clifton, Cloe

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	

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# **Login Sample Receipt Checklist**

Client: WSP USA Inc.

Job Number: 890-2003-1 SDG Number: 31403360.03

**List Source: Eurofins Midland** 

List Creation: 02/24/22 12:49 PM

Login Number: 2003 List Number: 2 Creator: Teel, Brianna

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 Carlsbad** 

Page 37 of 37

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# **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

JURAMER

Authorized for release by: 3/7/2022 9:27:48 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 2/8/2024 11:50:58 AM

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.

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Client: WSP USA Inc.

Laboratory Job ID: 890-2030-1

Project/Site: RDU 11

SDG: 31403360.031

**Table of Contents** 

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	15
QC Sample Results	16
QC Association Summary	20
Lab Chronicle	23
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Chacklists	32

# **Definitions/Glossary**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

60.031

#### 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.

E

#### GC Semi VOA

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

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#### **HPLC/IC**

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

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# 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

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. Job ID: 890-2030-1 SDG: 31403360.031 Project/Site: RDU 11

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.

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

Lab Sample ID: 890-2030-1

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH12

Date Collected: 02/28/22 10:30 Date Received: 03/01/22 08:50

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 16:21	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 16:21	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	101		70 - 130				03/06/22 11:15	03/06/22 16:21	
1,4-Difluorobenzene (Surr)	114		70 - 130				03/06/22 11:15	03/06/22 16:21	
Method: Total BTEX - Total BTEX	( Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	
Total TPH	<50.0	U	50.0		mg/Kg			03/03/22 12:29	
Method: 8015B NM - Diesel Rang									
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 02:31	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	100		70 - 130				03/02/22 08:11	03/03/22 02:31	
o-Terphenyl	104		70 - 130				03/02/22 08:11	03/03/22 02:31	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Method: 300.0 - Anions, Ion Chro Analyte	0 . ,	Soluble Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed	Dil Fac

**Client Sample ID: BH12** 

Date Collected: 02/28/22 10:33

Date Received: 03/01/22 08:50

Sample Depth: 4

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

**Eurofins Carlsbad** 

Lab Sample ID: 890-2030-2

Matrix: Solid

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Lab Sample ID: 890-2030-2

03/02/22 08:11 03/03/22 03:34

Lab Sample ID: 890-2030-3

Matrix: Solid

# **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

**Client Sample ID: BH12** 

Date Collected: 02/28/22 10:33 Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8021B - Volatile O	rganic Compou	nds (GC)	(Continued)
Michiga: OUL 1B Volume C	i gaino compou	1145 (55)	(Goillinaca)

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 RTFX	- Total BTEX	Calculation
Metriou.	IULAI DIEA	- IULAI DIEA	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

Mothod: 8015 NM - Diesel Range	Organice	(DRO) (GC)

Analyte	Result C	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 L	J	50.0	mg/Kg			03/03/22 12:29	1

Method: 8015B	NM - Diesel	Range Or	nanice	(DRO)	(GC)
Method. ou lob	MINI - DIESEI	Kange Or	yanıcs (	(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
Oll 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

1-Chlorooctane	99	70 - 130
o-Terphenyl	103	70 - 130

Method: 300.0 - Anions, Ion Ch	romatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

Allalyto	resuit	Qualifici	112	IIIDL	Oilit	 ricparca	Analyzou	Diriac
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

11C Compounds (	s (GC)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
<0.00198	U	0.00198		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
<0.00397	U	0.00397		mg/Kg		03/06/22 11:15	03/06/22 17:15	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
102		70 - 130				03/06/22 11:15	03/06/22 17:15	1
118		70 - 130				03/06/22 11:15	03/06/22 17:15	1
	Result   <0.00198   <0.00198   <0.00198   <0.00397   <0.00397   <0.00397	Result   Qualifier	Result         Qualifier         RL           <0.00198	Result         Qualifier         RL         MDL           <0.00198	Result         Qualifier         RL         MDL         Unit           <0.00198	Result         Qualifier         RL         MDL         Unit         D           <0.00198	<0.00198	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           <0.00198

Mothod:	Total RTF	Y - Total R	TFX Calculatio	n

Analyte	Result	Qualifier	RL	MDL	Unit	U	Prepared	Analyzed	DII Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg		_	03/07/22 21:30	1

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

Lab Sample ID: 890-2030-3

03/05/22 16:18

Lab Sample ID: 890-2030-4

**Matrix: Solid** 

# **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

**Client Sample ID: BH13** 

Date Collected: 02/28/22 11:20 Date Received: 03/01/22 08:50

Sample Depth: 2

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
Oll 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 Chro	matography -	Soluble							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

49.7

mg/Kg

4430

**Client Sample ID: BH13** 

Date Collected: 02/28/22 11:25

Date Received: 03/01/22 08:50

Sample Depth: 4

Chloride

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 (DR	O) (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 Rang	e Organics (D	RO) (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	<49.9	U	49.9		mg/Kg		03/02/22 08:11	03/03/22 04:15	1
C10-C28)									
OII 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

**Eurofins Carlsbad** 

3/7/2022

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 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 Chroma	tography -	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

Date Collected: 02/28/22 11:30 Date Received: 03/01/22 08:50

Sample Depth: 0.5

Analyte

Total BTEX

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

					0 0				
Method: 8015 NM - Diesel Range	Organics (DR	O) (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 Analyte		RO) (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 04:36	1

0.00404

MDL Unit

mg/Kg

Prepared

Analyzed

03/07/22 21:30

Result Qualifier

<0.00404 U

o-Terphenyl	106		70 - 130		03/02/22 08:11	03/03/22 04:36	1
1-Chlorooctane	104		70 - 130		03/02/22 08:11	03/03/22 04:36	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<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
(GRO)-C6-C10							

Method: 300.0 - Anions, Ion Chron	natography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.00		mg/Kg			03/05/22 16:41	1

**Eurofins Carlsbad** 

Dil Fac

Lab Sample ID: 890-2030-6

# **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

**Client Sample ID: BH14** 

Date Collected: 02/28/22 11:35 Date Received: 03/01/22 08:50

Sample Depth: 4

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 (DR)	O) (GC)							
Analyte	•	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 Rang	ge Organics (D	RO) (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
Oll 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 Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

**Client Sample ID: BH15** 

Date Collected: 02/28/22 11:40

Date Collected. 02/20/22	11.40
Date Received: 03/01/22 0	8:50
Sample Depth: 0.5	

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

**Eurofins Carlsbad** 

Lab Sample ID: 890-2030-7

Matrix: Solid

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH15 Lab Sample ID: 890-2030-7

Date Collected: 02/28/22 11:40 Matrix: Solid
Date Received: 03/01/22 08:50

Sample Depth: 0.5

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 (DR	O) (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 Rang	e Organics (D	RO) (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	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				03/02/22 08:11	03/03/22 05:18	

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	

70 - 130

99

<50.0 U

Client Sample ID: BH15

Date Collected: 02/28/22 11:50

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

Total TPH

o-Terphenyl

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 B1	TEX 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 Rar	nge Organics (DR	O) (GC)							
		Qualifier	RL		Unit		Prepared	Analyzed	

**Eurofins Carlsbad** 

03/03/22 12:29

50.0

mg/Kg

Lab Sample ID: 890-2030-8

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

**Client Sample ID: BH15** 

Date Collected: 02/28/22 11:50 Date Received: 03/01/22 08:50

Sample Depth: 4

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (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
Oll 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 Chro	matography -	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

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 (DR	O) (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 Rang	ge Organics (D	RO) (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
Oll 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

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH16 Lab Sample ID: 890-2030-9

Date Collected: 02/28/22 13:20
Date Received: 03/01/22 08:50
Matrix: Solid

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

Date Collected: 02/28/22 13:25

Date Received: 03/01/22 08:50

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	
Toluene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	•
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	•
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/06/22 11:15	03/06/22 21:42	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/06/22 11:15	03/06/22 21:42	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	89		70 - 130				03/06/22 11:15	03/06/22 21:42	
1,4-Difluorobenzene (Surr)	108		70 - 130				03/06/22 11:15	03/06/22 21:42	
· Method: Total BTEX - Total BTE)	( Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	•
Method: 8015 NM - Diesel Range	Organics (DR	O) (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 Rang	ge Organics (D	RO) (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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 06:19	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	105		70 - 130				03/02/22 08:11	03/03/22 06:19	
o-Terphenyl	106		70 - 130				03/02/22 08:11	03/03/22 06:19	1
Method: 300.0 - Anions, Ion Chro	•								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4650		50.1		mg/Kg			03/05/22 18:28	10

Lab Sample ID: 890-2030-11

# **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:15 Date Received: 03/01/22 08:50

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	
Toluene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/06/22 11:15	03/06/22 22:09	
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/06/22 11:15	03/06/22 22:09	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	99		70 - 130				03/06/22 11:15	03/06/22 22:09	
1,4-Difluorobenzene (Surr)	106		70 - 130				03/06/22 11:15	03/06/22 22:09	
Method: Total BTEX - Total BTEX	X Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/07/22 21:30	
Analyte Total TPH	<49.9	Qualifier U	49.9	MDL	mg/Kg	D	Prepared	Analyzed 03/03/22 12:29	Dil Fa
			49.9		mg/itg			03/03/22 12.29	
Method: 8015B NM - Diesel Rang						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared		
							<u>·</u>	Analyzed	
Gasoline Range Organics	<49.9	U	49.9		mg/Kg	— <u>-</u>	03/02/22 08:11	Analyzed 03/03/22 07:01	Dil Fa
(GRO)-C6-C10						_ =	03/02/22 08:11	03/03/22 07:01	
(GRO)-C6-C10 Diesel Range Organics (Over	<49.9 <49.9		49.9		mg/Kg	_ =	<u>·</u>		
(GRO)-C6-C10 Diesel Range Organics (Over		U					03/02/22 08:11	03/03/22 07:01	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)	<49.9	U U	49.9		mg/Kg		03/02/22 08:11	03/03/22 07:01	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate	<49.9 <49.9	U U	49.9 49.9		mg/Kg		03/02/22 08:11 03/02/22 08:11 03/02/22 08:11	03/03/22 07:01 03/03/22 07:01 03/03/22 07:01	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.9 <49.9 <b>%Recovery</b>	U U	49.9 49.9 <i>Limits</i>		mg/Kg	=	03/02/22 08:11 03/02/22 08:11 03/02/22 08:11 <i>Prepared</i>	03/03/22 07:01 03/03/22 07:01 03/03/22 07:01 Analyzed	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<49.9 <49.9 	U U <b>Qualifier</b>	49.9 49.9 <u>Limits</u> 70 - 130		mg/Kg		03/02/22 08:11 03/02/22 08:11 03/02/22 08:11 <b>Prepared</b> 03/02/22 08:11	03/03/22 07:01 03/03/22 07:01 03/03/22 07:01 Analyzed 03/03/22 07:01	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<49.9 <49.9  **Recovery 96 97  omatography -	U U <b>Qualifier</b>	49.9 49.9 <u>Limits</u> 70 - 130	MDL	mg/Kg mg/Kg		03/02/22 08:11 03/02/22 08:11 03/02/22 08:11 <b>Prepared</b> 03/02/22 08:11	03/03/22 07:01 03/03/22 07:01 03/03/22 07:01 Analyzed 03/03/22 07:01	

Client Sample ID: BH17

Date Collected: 02/28/22 14:20 Date Received: 03/01/22 08:50

Date Received: 00/01/22 0

Sample Depth: 4

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

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Lab Sample ID: 890-2030-12

**Matrix: Solid** 

Lab Sample ID: 890-2030-12

03/05/22 18:52

# **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH17

Date Collected: 02/28/22 14:20 Date Received: 03/01/22 08:50

Sample Depth: 4

Chloride

/orkecovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
108		70 - 130				03/06/22 11:15	03/06/22 22:36	1
X Calculation								
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00398	U	0.00398		mg/Kg			03/07/22 21:30	1
e Organics (DR	O) (GC)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0		mg/Kg			03/03/22 12:29	1
		RL	MDL		D	Prepared	Analyzed	Dil Fac
ge Organics (Di	RO) (GC)							
<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
				0 0				
<50.0	U	50.0		mg/Kg		03/02/22 08:11	03/03/22 07:21	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
99		70 - 130				03/02/22 08:11	03/03/22 07:21	1
103		70 - 130				03/02/22 08:11	03/03/22 07:21	1
	X Calculation	X Calculation Result Qualifier <0.00398 U  e Organics (DRO) (GC) Result Qualifier <50.0 U  consider Co	X Calculation   Result   Qualifier   RL	X Calculation   Result   Qualifier   RL   MDL	X Calculation   Result   Qualifier   RL   MDL   Unit   mg/Kg	X Calculation	X Calculation   Result   Qualifier   RL   MDL   Unit   Mg/Kg   D   Prepared	X Calculation   Result   Qualifier   RL   MDL   Unit   D   Prepared   Analyzed   03/07/22 21:30

100

mg/Kg

8280

# **Surrogate Summary**

Job ID: 890-2030-1 Client: WSP USA Inc. Project/Site: RDU 11 SDG: 31403360.031

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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	

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)	
890-2030-1	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	
	Method Blank	112	117	

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OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 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

	IVID	IVID							
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 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

MB MB

MD MD

Surrogate	%Recovery	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

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.08533 mg/Kg 85 70 - 130 Toluene 0.100 0.08536 mg/Kg 85 70 - 130 0.100 0.09079 Ethylbenzene mg/Kg 91 70 - 130 0.200 0.1854 93 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.09200 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery Qu	ıalifier	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

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

Surrogate	%Recovery 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

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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Page 16 of 33

Prep Batch: 20687

Prep Type: Total/NA

5

3

Prep Batch: 20658

Client Sample ID: Matrix Spike Duplicate

70 - 130

70 - 130

110

107

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11719-A-1-J MS Client Sample ID: Matrix Spike Prep Type: Total/NA

**Matrix: Solid Analysis Batch: 20977** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits < 0.00199 U 0.0998 0.1035 mg/Kg 104 70 - 130 Ethylbenzene m-Xylene & p-Xylene <0.00398 0.200 0.2115 mg/Kg 106 70 - 130 o-Xylene <0.00199 U 0.0998 0.1057 70 - 130 mg/Kg 106

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: 880-11719-A-1-K MSD

**Analysis Batch: 20977** 

m-Xylene & p-Xylene

o-Xylene

**Matrix: Solid** 

Prep Batch: 20687 Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier RPD Limit Analyte babbA Result Qualifier %Rec Limits Unit Benzene <0.00199 U 0.101 0.1073 mg/Kg 106 70 - 130 4 35 Toluene <0.00199 0.101 0.1009 mg/Kg 100 70 - 130 3 35 Ethylbenzene <0.00199 0.101 0.1083 107 70 - 130 35 U mg/Kg 5

0.2216

0.1086

mg/Kg

mg/Kg

0.202

0 101

MSD MSD

U

<0.00398

<0.00199 U

Qualifier Limits Surrogate %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 94 1,4-Difluorobenzene (Surr) 124 70 - 130

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-20658/1-A Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 20655** 

мв мв Result Qualifier RL MDL Unit D Prepared Dil Fac Analyte Analyzed 03/02/22 08:11 <50.0 U 50.0 03/03/22 01:28 Gasoline Range Organics mg/Kg (GRO)-C6-C10 03/02/22 08:11 03/03/22 01:28 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 03/02/22 08:11 03/03/22 01:28 mg/Kg

MB MB

%Recovery Limits Dil Fac Qualifier Prepared Analyzed Surrogate 1-Chlorooctane 112 70 - 130 03/02/22 08:11 03/03/22 01:28 117 70 - 130 03/02/22 08:11 03/03/22 01:28 o-Terphenyl

Lab Sample ID: LCS 880-20658/2-A

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**Matrix: Solid** 

**Analysis Batch: 20655** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 20658

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits 1000 93 70 - 130 930.2 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 852.2 mg/Kg 85 70 - 130

C10-C28)

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35

Job ID: 890-2030-1

Client: WSP USA Inc.
Project/Site: RDU 11

SDG: 31403360.031

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-20658/2-A

Lab Sample ID: LCSD 880-20658/3-A

Lab Sample ID: 890-2030-1 MS

**Analysis Batch: 20655** 

Matrix: Solid

Analysis Batch: 20655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20658

LCS LCS

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 107
 70 - 130

 o-Terphenyl
 106
 70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid
Analysis Batch: 20655
Spike LCSD LCSD Prep Type: Total/NA
Prep Batch: 20658
RPD

Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 971.8 97 70 - 13020 Gasoline Range Organics mg/Kg 4 (GRO)-C6-C10 Diesel Range Organics (Over 1000 874.2 87 mg/Kg 70 - 1303 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	105		70 - 130

Client Sample ID: BH12 4 2

Matrix: Solid Prep Type: Total/NA

Prep Batch: 20658

Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U 1000 1077 mg/Kg 105 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 1000 943.7 mg/Kg 94 70 - 130

C10-C28)

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 94
 70 - 130

 o-Terphenyl
 100
 70 - 130

Lab Sample ID: 890-2030-1 MSD Client Sample ID: BH12

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 20655 Prep Batch: 20658

Sample Sample MSD MSD %Rec. RPD Spike Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit <50.0 U 998 1086 106 20 Gasoline Range Organics mg/Kg 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 998 910.9 mg/Kg 91 70 - 130 20

C10-C28)

MSD MSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	99	70 - 130
o-Terphenyl	95	70 - 130

Client Sample ID: Method Blank

# QC Sample Results

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20681/1-A

**Matrix: Solid** 

Analysis Batch: 20963

**Prep Type: Soluble** 

MDL Unit Dil Fac Analyte Result Qualifier RL D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 03/05/22 13:14

MB MB

Lab Sample ID: LCS 880-20681/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 20963** 

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 254.8 mg/Kg 102 90 - 110

Lab Sample ID: LCSD 880-20681/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** Analysis Batch: 20963

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 257.4 mg/Kg 103 90 - 110

Lab Sample ID: 890-2030-7 MS Client Sample ID: BH15 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 20963** 

MS MS %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 316.5 Chloride 77.5 250 96 90 - 110 mg/Kg

Lab Sample ID: 890-2030-7 MSD

**Matrix: Solid** 

**Analysis Batch: 20963** 

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 77.5 321.4 mg/Kg 98 90 - 110 20

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Client Sample ID: BH15

**Prep Type: Soluble** 

# **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 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	
390-2030-4	BH13	Total/NA	Solid	5035	
390-2030-5	BH14	Total/NA	Solid	5035	
390-2030-6	BH14	Total/NA	Solid	5035	
890-2030-7	BH15	Total/NA	Solid	5035	
390-2030-8	BH15	Total/NA	Solid	5035	
890-2030-9	BH16	Total/NA	Solid	5035	
390-2030-10	BH16	Total/NA	Solid	5035	
390-2030-11	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	

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3/7/2022

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# **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 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 Batc
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

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# **QC Association Summary**

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 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

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Page 22 of 33

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

Client Sample ID: BH12

Date Received: 03/01/22 08:50

Lab Sample ID: 890-2030-1 Date Collected: 02/28/22 10:30

**Matrix: Solid** 

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.02 g 5 mL 20687 03/06/22 11:15 KL XEN MID 8021B Total/NA Analysis 1 5 mL 5 mL 20977 03/06/22 16:21 KL XEN MID Total/NA Analysis Total BTEX 21059 03/07/22 21:30 ΑJ XEN MID Total/NA 8015 NM 20812 03/03/22 12:29 XEN MID Analysis 1 AJ Total/NA 8015NM Prep 10 mL 20658 03/02/22 08:11 XEN MID Prep 10.01 g DM Total/NA Analysis 8015B NM 20655 03/03/22 02:31 AJ XEN MID Soluble DI Leach 50 mL 20681 03/02/22 10:50 СН XEN MID Leach 5 g Soluble Analysis 300.0 5 20963 03/05/22 15:30 SC XEN MID

Client Sample ID: BH12 Lab Sample ID: 890-2030-2

Date Collected: 02/28/22 10:33 **Matrix: Solid** 

Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2030-3 Date Collected: 02/28/22 11:20

Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2030-4 Date Collected: 02/28/22 11:25

Date Received: 03/01/22 08:50

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	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

**Eurofins Carlsbad** 

Page 23 of 33

Released to Imaging: 2/8/2024 11250:58 AM

Matrix: Solid

Matrix: Solid

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: BH13 Lab Sample ID: 890-2030-4

Date Collected: 02/28/22 11:25

Date Received: 03/01/22 08:50

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-5

Date Collected: 02/28/22 11:30 Matrix: Solid

Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-6

Date Collected: 02/28/22 11:35 Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-7

Date Collected: 02/28/22 11:40 Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** 

**Matrix: Solid** 

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**Matrix: Solid** 

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 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

Client Sample ID: 890-2030-7

Lab Sample ID: 890-2030-7

Date Collected: 02/28/22 11:40
Date Received: 03/01/22 08:50
Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-8

Date Collected: 02/28/22 11:50 Matrix: Solid
Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-9

Date Collected: 02/28/22 13:20 Matrix: Solid
Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2030-10

Date Collected: 02/28/22 13:25

Date Received: 03/01/22 08:50

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Client: WSP USA Inc. Job ID: 890-2030-1 Project/Site: RDU 11 SDG: 31403360.031

**Client Sample ID: BH17** Lab Sample ID: 890-2030-11

Date Collected: 02/28/22 14:15 Matrix: Solid

Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2030-12 Matrix: Solid

Date Collected: 02/28/22 14:20 Date Received: 03/01/22 08:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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	СН	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.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 SDG: 31403360.031

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pre	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report bu	t the laboratory is not certifi	ed by the governing authority. This list ma	v include analytes for v
the agency does not of	' '	t the laboratory to not contin	ed by the governing additionty. This list the	ly include analytes for v
the agency does not of Analysis Method	' '	Matrix	Analyte	y include analytes for v
9 ,	fer certification.	•	, , ,	

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# **Method Summary**

 Client: WSP USA Inc.
 Job ID: 890-2030-1

 Project/Site: RDU 11
 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

**Eurofins Carlsbad** 

Released to Imaging: 2/8/2024 11:50:58 AM

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# **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

Joseph Hernandez

Address: City, State ZIP:

3300 North A Street

Midland, TX 79705

Carlsbad, NM 88220 5315 Buena Vista Dr WPX Energy

Reporting:Level II Level III 4ST/UST

PRRP □evel IV

State of Project:

Program: UST/PST □PRP □Brownfields ¬RC

Superfund

**Work Order Comments** 

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Company Name:

WSP

# **Chain of Custody**

	obbs NM (575-392-7550) Phoenix AZ (480-355-0900) Atlanta GA (770-449-8800) Tampa.FL (813-620-2000)	Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
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hone.	281-702-2329			Email:	Anna.Byers@wsp.com,	@wsp.c	om,			Deliverables: EDD	D ADaPT Other:	her:
roject Name:	RDU 11			Tu	Turn Around					ANALYSIS REQUEST	Work	Work Order Notes
er:	31403360.031			Routi	Routine						CC 1137631001	31001
	nAPP2200728755	55		Rush:	:						AFE	
ampler's Name:	Gilbert Moreno			Due Date	Date:						API: PA.202	API: PA.2021.04159.EXP.01
SAMPLE RECEIPT		Temp Blank:	Kes No	Wet Ice:	(es) No							
emperature (°C):	1.2/1	· Ø	T	Thermometer ID	ID	ners			)	890-2030 Chain of Custody		
eceived Intact:	(Yes)	No	1	00-MI	1	ntai		)21)	00.0			
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ample Custody Seals:		TE.	Total	Total Containers:		er of	PA 8	РА	e (El		lab, if rec	lab, if received by 4:30pm
Sample Identification	ification	Matrix	Date Sampled	Time Sampled	Depth (Feet)	Numbe	TPH (EF	BTEX (E	Chlorid		Sampl	Sample Comments
BH12		S	2.28.22	10:30	2	1	×	×	×			Pag
BH12		S	2.28.22	10:33	4	_	×	×	×			
ВН13	3	S	2.28.22	11:20	2	_	×	×	×			
BH13	3	S	2.28.22	11:25	4	_	×	×	×			
BH14		S	2.28.22	11:30	0.5	_	×	×	×			
BH14		S	2.28.22	11:35	4	1	×	×	×			
ВН15		S	2.28.22	11:40	0.5	_	×	×	×			
BH15		S	2.28.22	11:50	4	_	×	×	×			
ВН16		S	2.28.22	13:20	2	_	×	×	×			
BH16		S	2.28.22	13:25	4	_	×	×	×			
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	10 200.8 / 6020: and Metal(s) to be	0 <b>20</b> : o be ana		RCRA 13P	8RCRA 13PPM Texas 11 Al Sb	11 AI CRA	Sb As Ba Sb As Ba		Be B Be Cd	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	K Se Ag SiO2	Na Sr TI Sn U V Zn 631 / 245.1 / 7470 / 7471 : Hg
otice: Signature of this diservice. Xenco will be li	ocument and relinquiable only for the cos	ishment of t of sample	samples consti	tutes a valid pu	archase order fro	m client	company s or exp	y to Xer	ico, its a	stroice. 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 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	conditions d the control	
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Page 30 01 33

Work Order No:

Revised Date 051418 Rev. 2018 1

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# Joseph Hernandez

Address: Company Name:

3300 North A Street

WSP

## Chain of Custody

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000) 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 Ill to: (if different) WPX Energy Jim Raley Program: UST/PST □PRP □Brownfields □RC

5315 Buena Vista Dr.

State of Project:

	Revised Date 051418 Rev. 2018 1					-										_
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							22 0850	22	Ċ		8	loe Cu		φ <sup>*</sup> ,		
	Date/Time	(Signature)	Received by: (Signature)	Signature)	Relinquished by: (Signature)	Reli	ime	Date/Time		ure)	Received by: (Signature)	Received	<b>)</b>	y. (Signature)	Relinquished by. (Signature)	
			nature 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  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  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.	It assigns standard re due to circumstanu forced unless previous	and subcontractors. ient if such losses ar hese terms will be er	, its affiliates a urred by the clic ot analyzed. Th	to Xenco enses incu nco, but n	company as or expo	om client any losse le submit	ourchase order from esponsibility for samples for each samples	stitutes a valid p ot assume any r nd a charge of t	f samples cons es and shall no each project a	quishment of ost of sampl e applied to	document and reline e liable only for the c harge of \$75.00 will b	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 controp 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.	
	1631 / 245.1 / 7470 / 7471 : Hg	1631 / 245.1	) TI U	Mn Mo Ni Se Ag Ti U	Co Cu Pb Mn	Cd Cr	Ba Be	Sb As		TCLP / SPLP 6010: 8RCRA	TCLP / SP	alyzed	to be an	Circle Method(s) and Metal(s) to be analyzed	Circle Method	_
	Sr TI Sn U V Zn	SiO2	Mn Mo Ni K Se Ag	Pb Mg	Ca Cr Co Cu Fe	Be B Cd C	Ва	Sb As	11 AI	13PPM Texas 11	8RCRA 13I	3	6020:	3010 200.8 / 6020:	Total 200.7 / 6010	
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f 2	lab, if received by 4:30pm	lab, i				e (E	-	PA 8	er o		Total Containers:	Tota	No N/A	Yes	Sample Custody Seals:	ï
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						1)			iner	rID	Thermometer ID				Temperature (°C):	
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		AFE	-							h:	Rush		3755	nAPP2200728755	Incident ID:	
	1137531001	CC 113								Routine	Rou			31403360.031	Project Number:	
	Work Order Notes	Wc		IS REQUEST	ANALYSIS R					Turn Around	Τι			RDU 11	Project Name:	
	Other:	AUaPI —	Deliverables: EDD -	Delivera				com,	@wsp.	Anna.Byers@wsp.com	Email			281-702-2329	Phone	
	TRRP Tevel IV		Reporting:Level II	Reportin		38220	Carlsbad, NM 88220	Carlsba		City, State ZIP			9705	Midland, TX 79705	City, State ZIP:	
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Work Order No:

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**Work Order Comments** 

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#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-2030-1 SDG Number: 31403360.031

List Source: Eurofins Carlsbad

Login Number: 2030 List Number: 1 Creator: Clifton, Cloe

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

List Source: Eurofins Midland

List Creation: 03/02/22 11:22 AM

Login Number: 2030 List Number: 2 Creator: Kramer, Jessica

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 Carlsbad

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### **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

SCRAMER

Authorized for release by: 3/14/2022 1:37:54 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

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**Have a Question?** 



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Released to Imaging: 2/8/2024 11:50:58 AM

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.

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Client: WSP USA Inc. Project/Site: RDU 11

Laboratory Job ID: 890-2040-1 SDG: 31403360.036.31403360.035

#### **Table of Contents**

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	21
QC Sample Results	23
QC Association Summary	28
Lab Chronicle	33
Certification Summary	40
Method Summary	41
Sample Summary	42
Chain of Custody	43
Receipt Checklists	48

2

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4

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#### Definitions/Glossary

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

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Qualifiers

GC VOA Qualifier

 Qualifier
 Qualifier Description

 S1+
 Surrogate recovery exceeds control limits, high biased.

 U
 Indicates the analyte was analyzed for but not detected.

GC Semi VOA

\*- 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

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.

Eisted 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.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 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.

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Matrix: Solid

Lab Sample ID: 890-2040-1

#### **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

Client Sample ID: BH01

Date Collected: 03/03/22 11:05 Date Received: 03/03/22 15:10

Sample Depth: 2

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	
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/09/22 23:03	•
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/09/22 23:03	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	103		70 - 130				03/07/22 12:57	03/09/22 23:03	
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/09/22 23:03	
Method: Total BTEX - Total BTEX	X 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	
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	
-	100.0	Ü	00.0		mg/rtg			00/14/22 12.12	
Method: 8015B NM - Diesel Rang	• •								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/11/22 22:14	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
			70 - 130				03/04/22 15:08	03/11/22 22:14	
1-Chlorooctane	98		70 - 700						
1-Chlorooctane o-Terphenyl	98 105		70 - 130				03/04/22 15:08	03/11/22 22:14	
	105	Soluble					03/04/22 15:08		
o-Terphenyl	105 omatography -	Soluble Qualifier		MDL	Unit mg/Kg	D	03/04/22 15:08  Prepared		Dil Fac

Client Sample ID: BH01

Date Collected: 03/03/22 11:07 Date Received: 03/03/22 15:10

Sample Depth: 4

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	

**Eurofins Carlsbad** 

Lab Sample ID: 890-2040-2

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Matrix: Solid

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH01** Lab Sample ID: 890-2040-2

Date Collected: 03/03/22 11:07 Matrix: Solid Date Received: 03/03/22 15:10

Sample Depth: 4

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 (DR	O) (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 Rang	e Organics (D	RO) (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
Oll 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			70 - 130				03/04/22 15:08	03/11/22 23:18	1
o-Terphenyl	123		70 <sub>-</sub> 130				03/04/22 15:08	03/11/22 23:18	

	.20	70-700				00,0 ,, == , 0,00	00, == =0 0	•
Method: 300.0 - Anions, Ion Chrom	natography - So	oluble						
Analyte	Result Q	ualifier RI	_ MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9220	99.2	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

Total TPH

Released to Imaging: 2/8/2024 11250:58PAM

nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
enzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
oluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
thylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
n-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
(ylenes, Total	<0.00397	U	0.00397		mg/Kg		03/07/22 12:57	03/09/22 23:44	1
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Bromofluorobenzene (Surr)	101		70 - 130				03/07/22 12:57	03/09/22 23:44	1
,4-Difluorobenzene (Surr)	96		70 - 130				03/07/22 12:57	03/09/22 23:44	1
Method: Total BTEX - Total B	TEX Calculation								
nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
otal BTEX	<0.00397	U	0.00397		mg/Kg			03/10/22 16:12	1

**Eurofins Carlsbad** 

03/14/22 12:12

49.9

mg/Kg

<49.9 U

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 SDG: 31403360.036.31403360.035 Project/Site: RDU 11

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 <49.9 U 03/11/22 23:39 49.9 03/04/22 15:08 Gasoline Range Organics mg/Kg (GRO)-C6-C10 <49.9 U \*-49.9 03/04/22 15:08 03/11/22 23:39 Diesel Range Organics (Over mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 03/04/22 15:08 03/11/22 23:39 %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 70 - 130 03/04/22 15:08 03/11/22 23:39 74 o-Terphenyl 79 70 - 130 03/04/22 15:08 03/11/22 23:39 Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed Chloride 4300 49.8 mg/Kg 03/09/22 09:22

Client Sample ID: BH02

Date Collected: 03/03/22 11:20

Date Received: 03/03/22 15:10

Sample Depth: 4

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 (DR	O) (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 Rang	je Organics (D	RO) (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
Oll 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

**Eurofins Carlsbad** 

Lab Sample ID: 890-2040-4

Matrix: Solid

Matrix: Solid

#### **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

SDG: 31403360.036.31403360.035

Lab Sample ID: 890-2040-4

Client Sample ID: BH02

Date Collected: 03/03/22 11:20 Date Received: 03/03/22 15:10

Sample Depth: 4

١	Method: 300.0 - Anions, Ion Chrom	natography -	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

Lab Sample ID: 890-2040-5

Matrix: Solid

Date Collected: 03/03/22 11:37 Date Received: 03/03/22 15:10

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	
Toluene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/07/22 12:57	03/10/22 00:25	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/07/22 12:57	03/10/22 00:25	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	108		70 - 130				03/07/22 12:57	03/10/22 00:25	
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 Analyte	•	O) (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	•
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	,
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 00:22	
On Range Organics (Over 020-030)							_		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
,		Qualifier	70 - 130				O3/04/22 15:08	Analyzed 03/12/22 00:22	
Surrogate 1-Chlorooctane		Qualifier							
Surrogate	72 78		70 - 130				03/04/22 15:08	03/12/22 00:22	Dil Fac
Surrogate 1-Chlorooctane o-Terphenyl	72 78 omatography -		70 - 130	MDL	Unit	D	03/04/22 15:08	03/12/22 00:22	

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Matrix: Solid

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH03** Lab Sample ID: 890-2040-6

Date Collected: 03/03/22 11:40 Date Received: 03/03/22 15:10

Sample Depth: 4

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 BTE	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 Analyte Total TPH		Qualifier		MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/14/22 12:12	Dil Fac
Method: 8015B NM - Diesel Rang	no Organice (D	PO) (GC)							
Analyte	• • •	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
Oll 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
			70 - 130				03/04/22 15:08	03/12/22 00:44	1
o-Terphenyl	83								
o-Terphenyl Method: 300.0 - Anions, Ion Chro		Soluble							
	omatography -	Soluble Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

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

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)			70 - 130				03/07/22 12:57	03/10/22 01:06	

Released to Imaging: 2/8/2024 11250:58PAM

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH04** Lab Sample ID: 890-2040-7

Date Collected: 03/03/22 09:25 Matrix: Solid Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Con	tinuea)

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	ı	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) (G	C
Method: 0013 NM - Dieser Kange Organics (DIXO) (C	, ,

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:05	1
C10-C28)									
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

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 F	F1	4.96	mg/K			03/09/22 16:05	1

**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: 8021B - Volatile Organic Compounds (GC)

Welliou. 002 ID - Volalile Orga	ilic 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

4-Bromotiuoropenzene (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

Matrix: Solid

Lab Sample ID: 890-2040-8

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 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

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 01:26	1
C10-C28)									
Oll 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 Chro	omatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.1		5.00		ma/Ka			03/09/22 16:23	1

Client Sample ID: BH05

Date Collected: 03/03/22 09:35

Lab Sample ID: 890-2040-9

Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 0.5

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
Total BTEX  Method: 8015 NM - Diesel Range			0.00400		mg/Kg			03/10/22 16:12	1
	Organics (DR		0.00400 RL	MDL	mg/Kg Unit	D	Prepared	03/10/22 16:12  Analyzed	
: Method: 8015 NM - Diesel Range	Organics (DR	O) (GC) Qualifier		MDL		<u>D</u>	Prepared		Dil Fac
Method: 8015 NM - Diesel Range Analyte	Organics (DR) Result <50.0	O) (GC) Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH	Organics (DR) Result <50.0  ge Organics (DI)	O) (GC) Qualifier	RL		Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang	Organics (DR) Result <50.0  ge Organics (DI)	Qualifier U RO) (GC) Qualifier	RL		Unit mg/Kg		<u> </u>	Analyzed 03/14/22 12:12	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10	e Organics (DR) Result <a href="#">&lt;50.0</a> <a href="#">ge Organics (DI)</a> <a href="#">Result</a> <a href="#">&lt;50.0</a>	Qualifier U  RO) (GC) Qualifier U	RL 50.0		Unit mg/Kg  Unit mg/Kg		Prepared 03/04/22 15:08	Analyzed 03/14/22 12:12  Analyzed 03/12/22 01:48	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics	Corganics (DR) Result <50.0  ge Organics (DI) Result	Qualifier U  RO) (GC) Qualifier U			Unit mg/Kg Unit		Prepared	Analyzed 03/14/22 12:12 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR) Result <a href="#">&lt;50.0</a> <a href="#">ge Organics (DI)</a> <a href="#">Result</a> <a href="#">&lt;50.0</a>	Qualifier U  RO) (GC) Qualifier U  U  V  U  V  U  V-	RL 50.0		Unit mg/Kg  Unit mg/Kg		Prepared 03/04/22 15:08	Analyzed 03/14/22 12:12  Analyzed 03/12/22 01:48	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR) Result <50.0 ge Organics (DI) Result <50.0 <50.0	Qualifier U  RO) (GC) Qualifier U  U  V*-	RL 50.0 FL 50.0 50.0		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 03/04/22 15:08 03/04/22 15:08	Analyzed 03/14/22 12:12  Analyzed 03/12/22 01:48 03/12/22 01:48	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Organics (DR)	Qualifier U  RO) (GC) Qualifier U  U  V  U  U  V  U	RL 50.0		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 03/04/22 15:08 03/04/22 15:08	Analyzed 03/14/22 12:12  Analyzed 03/12/22 01:48 03/12/22 01:48	

**Eurofins Carlsbad** 

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 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

Client Sample ID: BH05 Lab Sample ID: 890-2040-9

Date Collected: 03/03/22 09:35

Date Received: 03/03/22 15:10

Matrix: Solid

Sample Depth: 0.5

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

Lab Sample ID: 890-2040-10

Matrix: Solid

Date Collected: 03/03/22 09:40 Date Received: 03/03/22 15:10

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	-
Toluene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/07/22 12:57	03/10/22 02:07	
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/07/22 12:57	03/10/22 02:07	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	108		70 - 130				03/07/22 12:57	03/10/22 02:07	
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 Fa
Total BTEX	<0.00396		0.00396		mg/Kg			03/10/22 16:12	•
Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/14/22 12:12	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (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	,
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	•
			50.0		mg/Kg		03/04/22 15:08	03/12/22 02:10	
•	<50.0	U	50.0		mg/rtg				
Oll Range Organics (Over C28-C36)	<50.0		Limits		mg/rtg		Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36)  Surrogate					99		Prepared 03/04/22 15:08	Analyzed 03/12/22 02:10	Dil Fa
Oll Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane	%Recovery		Limits		g.r.tg		<u> </u>		
Oll Range Organics (Over C28-C36)  Surrogate 1-Chloroctane o-Terphenyl  Method: 300.0 - Anions, Ion Chro	%Recovery 70 73	Qualifier	Limits 70 - 130		g.kg		03/04/22 15:08	03/12/22 02:10	
Oll Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane o-Terphenyl	%Recovery 70 73 pmatography -	Qualifier	Limits 70 - 130	MDL		D	03/04/22 15:08	03/12/22 02:10	

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 SDG: 31403360.036.31403360.035

Project/Site: RDU 11

**Client Sample ID: BH06** Lab Sample ID: 890-2040-11 Date Collected: 03/03/22 09:45 Matrix: Solid

Date Received: 03/03/22 15:10

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 BTE Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
			RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/10/22 16:12	Dil Fac
Analyte	Result   <0.00403	U		MDL		<u>D</u>	Prepared		
Analyte Total BTEX	Result <0.00403	U				<u>D</u>	Prepared Prepared		
Analyte Total BTEX  . Method: 8015 NM - Diesel Rang	Result <0.00403	U O) (GC) Qualifier	0.00403		mg/Kg			03/10/22 16:12	1
Analyte Total BTEX  Method: 8015 NM - Diesel Rang Analyte Total TPH	Result   <0.00403	O) (GC) Qualifier	0.00403		mg/Kg			03/10/22 16:12  Analyzed	1 Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Rang Analyte	ge Organics (DR) Result <50.0  equiv (DR) Result <50.0  equiv (DR) Result <50.0	O) (GC) Qualifier	0.00403	MDL	mg/Kg			03/10/22 16:12  Analyzed	1 Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Rang Analyte Total TPH  Method: 8015B NM - Diesel Rang	ge Organics (DR) Result <50.0  equiv (DR) Result <50.0  equiv (DR) Result <50.0	O) (GC) Qualifier U  RO) (GC) Qualifier	0.00403  RL 50.0	MDL	mg/Kg  Unit mg/Kg	<u>D</u>	Prepared	03/10/22 16:12  Analyzed  03/14/22 12:12	Dil Fac
Analyte Total BTEX  Method: 8015 NM - Diesel Rang Analyte Total TPH  Method: 8015B NM - Diesel Rar Analyte Gasoline Range Organics	ge Organics (DR) Result <50.0  Comparison (DR) Result Comparison (DR) Result Result	U O) (GC) Qualifier U RO) (GC) Qualifier U	0.00403  RL  50.0	MDL	mg/Kg  Unit mg/Kg  Unit	<u>D</u>	Prepared Prepared	03/10/22 16:12  Analyzed  03/14/22 12:12  Analyzed	Dil Fac Dil Fac

Limits %Recovery Qualifier Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 70 - 130 03/04/22 15:08 03/12/22 02:52 79 o-Terphenyl 77 70 - 130 03/04/22 15:08 03/12/22 02:52

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed Chloride <4.97 U 4.97 03/09/22 16:58 mg/Kg

Client Sample ID: BH06 Lab Sample ID: 890-2040-12 Date Collected: 03/03/22 09:50 **Matrix: Solid** 

Date Received: 03/03/22 15:10

Sample Depth: 4

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	

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

Client Sample ID: BH06 Lab Sample ID: 890-2040-12

Date Collected: 03/03/22 09:50 Matrix: Solid
Date Received: 03/03/22 15:10

Sample Depth: 4

Method: 8021B - Volatile Organic	Compounds (	(GC) (Conti	nued)						
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 (DR	O) (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 Rang	je Organics (D	RO) (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
Oll 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

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	

70 - 130

78

<50.0 U

Client Sample ID: BH07

Date Collected: 03/03/22 09:55

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

Total TPH

o-Terphenyl

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 BT	ΓEX 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 Rar	nge Organics (DR	O) (GC)							

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03/14/22 12:12

50.0

mg/Kg

5

7

4.0

40

13

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Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH07** Lab Sample ID: 890-2040-13

Date Collected: 03/03/22 09:55 Matrix: Solid Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (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
Oll 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 Chro	omatography -	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

Lab Sample ID: 890-2040-14 **Client Sample ID: BH07** Date Collected: 03/03/22 10:00 Matrix: Solid

Date Received: 03/03/22 15:10

Sample Depth: 4

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	D I4	O 11.01			1114	D	D	A ll	Dil Fac
Allalyte	Result	Qualifier	RL	MDL	Unit	U	Prepared	Analyzed	Diriac
Total BTEX	<0.00404		0.00404	MDL	mg/Kg		Prepared	03/10/22 16:12	1
	<0.00404	U		MDL			Prepared		
Total BTEX	<0.00404  Organics (DR	U		MDL	mg/Kg		Prepared		
Total BTEX  Method: 8015 NM - Diesel Range	<0.00404  Organics (DR	O) (GC) Qualifier	0.00404		mg/Kg	_ =		03/10/22 16:12	1
Total BTEX  Method: 8015 NM - Diesel Range Analyte	<0.00404  Organics (DR  Result  <50.0	U O) (GC) Qualifier U	0.00404		mg/Kg	_ =		03/10/22 16:12  Analyzed	1 Dil Fac
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang	<0.00404 Organics (DR) Result <50.0  e Organics (DI)	U O) (GC) Qualifier U	0.00404		mg/Kg  Unit mg/Kg	_ =		03/10/22 16:12  Analyzed	1 Dil Fac
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics	<0.00404 Organics (DR) Result <50.0  e Organics (DI)	U O) (GC) Qualifier U RO) (GC) Qualifier	0.00404 RL 50.0	MDL	mg/Kg  Unit mg/Kg	<u></u>	Prepared	03/10/22 16:12  Analyzed  03/14/22 12:12	Dil Fac
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10	<0.00404 Organics (DRORESULT) Result <50.0  e Organics (DRORESULT)	U O) (GC) Qualifier U RO) (GC) Qualifier U	0.00404  RL 50.0	MDL	mg/Kg  Unit mg/Kg  Unit mg/Kg	<u></u>	Prepared Prepared	03/10/22 16:12  Analyzed  03/14/22 12:12  Analyzed	Dil Fac Dil Fac
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics	<0.00404  Organics (DR)  Result  <50.0  e Organics (D)  Result  <50.0	U O) (GC) Qualifier U RO) (GC) Qualifier U	0.00404  RL 50.0	MDL	mg/Kg  Unit mg/Kg  Unit	<u></u>	Prepared  Prepared  03/04/22 15:08	03/10/22 16:12  Analyzed 03/14/22 12:12  Analyzed 03/12/22 03:57	Dil Fac  Dil Fac  1
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00404  Organics (DR)  Result  <50.0  e Organics (D)  Result  <50.0	U O) (GC) Qualifier U RO) (GC) Qualifier U U *-	0.00404  RL 50.0	MDL	mg/Kg  Unit mg/Kg  Unit mg/Kg	<u></u>	Prepared  Prepared  03/04/22 15:08	03/10/22 16:12  Analyzed 03/14/22 12:12  Analyzed 03/12/22 03:57	Dil Fac  Dil Fac  1
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00404  Organics (DR)  Result  <50.0  e Organics (D)  Result  <50.0  <50.0	U O) (GC) Qualifier U RO) (GC) Qualifier U U *-	0.00404  RL 50.0  RL 50.0	MDL	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u></u>	Prepared  Prepared  03/04/22 15:08  03/04/22 15:08	03/10/22 16:12  Analyzed 03/14/22 12:12  Analyzed 03/12/22 03:57 03/12/22 03:57	Dil Fac  Dil Fac  1
Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00404  Organics (DR)  Result  <50.0  e Organics (D)  Result  <50.0  <50.0  <50.0	U O) (GC) Qualifier U RO) (GC) Qualifier U U *-	0.00404  RL 50.0  RL 50.0  50.0	MDL	mg/Kg  Unit mg/Kg  Unit mg/Kg  mg/Kg	<u></u>	Prepared  03/04/22 15:08  03/04/22 15:08	03/10/22 16:12  Analyzed 03/14/22 12:12  Analyzed 03/12/22 03:57 03/12/22 03:57	Dil Fac  Dil Fac  1  Dil Fac  1

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Released to Imaging: 2/8/2024 11250:58 AM

Matrix: Solid

Lab Sample ID: 890-2040-14

#### **Client Sample Results**

Client: WSP USA Inc.

Job ID: 890-2040-1

Project/Site: RDU 11

SDG: 31403360 036 31403360 035

Project/Site: RDU 11 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

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

Date Collected: 03/03/22 10:05

Matrix: Solid

Date Collected: 03/03/22 10:05 Date Received: 03/03/22 15:10

Sample Depth: 0.5

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	
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 BTE	X 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
Analyte Total TPH	Result <49.9	Qualifier U	<b>RL</b> 49.9	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/14/22 12:12	Dil Fac
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (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
Oll 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: 2000 Anione Ion Chr	omatography -	Soluble							
Method: 300.0 - Anions, Ion Chr	omatograpmy -	Oolubic							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Matrix: Solid

Lab Sample ID: 890-2040-16

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 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

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 BTE	( 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 Analyte Total TPH		Qualifier		MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/14/22 12:12	Dil Fac
• •			00.0		mg/rtg			00/11/22 12:12	,
Method: 8015B NM - Diesel Rang			D.	MDI	1114	-	D	A	D!! E
Analyte		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
Oll 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
1-Chiorocciane		S1-	70 - 130				03/04/22 15:08	03/12/22 04:40	1
o-Terphenyl	2	31-	70 - 700						
			70 - 700						
o-Terphenyl	omatography -		RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac

**Client Sample ID: BH09** 

Date Collected: 03/03/22 10:15 Date Received: 03/03/22 15:10

Sample Depth: 0.5

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)			70 - 130				03/07/22 12:57	03/10/22 05:32	1

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Lab Sample ID: 890-2040-17

**Matrix: Solid** 

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH09** Lab Sample ID: 890-2040-17

Date Collected: 03/03/22 10:15 Matrix: Solid Date Received: 03/03/22 15:10

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	03/07/22 12:57	03/10/22 05:32	1						
Method: Total BTEX - Total B	TEX 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
Franks de gode NM - Discoul Bassas G		0) (00)						

Method: 8015 NM - Diesel Range O								
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 Rang	e Organics (D	RO) (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
Oll 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
4.004		0.4	70 100				00/04/00 45 00	00/40/00 05 04	

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	C	03/04/22 15:08	03/12/22 05:01	1
		0 - 1 - 1 - 1 -					

Method: 300.0 - Anions, Ion Chron	natography - 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** Lab Sample ID: 890-2040-18 Date Collected: 03/03/22 10:25 **Matrix: Solid** 

Date Received: 03/03/22 15:10

Sample Depth: 4

Analyte

Total TPH

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 BT	EX 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

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Analyzed

03/14/22 12:12

Prepared

RL

49.8

MDL Unit

mg/Kg

Result Qualifier

<49.8 U

Dil Fac

Matrix: Solid

Lab Sample ID: 890-2040-18

03/09/22 18:03

Matrix: Solid

Lab Sample ID: 890-2040-19

#### **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

**Client Sample ID: BH09** 

Date Collected: 03/03/22 10:25 Date Received: 03/03/22 15:10

Sample Depth: 4

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
Oll 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 <sub>-</sub> 130				03/04/22 15:08	03/12/22 05:23	1

5.05

mg/Kg

174

**Client Sample ID: BH10** 

Date Collected: 03/03/22 10:30

Date Received: 03/03/22 15:10

Sample Depth: 0.5

Chloride

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	
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 (DR	O) (GC)							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
•	•	Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/14/22 12:12	Dil Fac
Analyte Total TPH	Result   <50.0	Qualifier U		MDL		<u>D</u>	Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Rang	Result <50.0	Qualifier U		MDL	mg/Kg	<u>D</u>	Prepared Prepared		
Analyte	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0		mg/Kg			03/14/22 12:12	1
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  ge Organics (D Result	Qualifier U  RO) (GC) Qualifier U	50.0		mg/Kg		Prepared	03/14/22 12:12  Analyzed	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0  ge Organics (D) Result <50.0	Qualifier U  RO) (GC) Qualifier U  U *-	50.0 RL 50.0		mg/Kg  Unit mg/Kg		Prepared 03/04/22 15:08	03/14/22 12:12  Analyzed  03/12/22 05:45	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U *-	50.0 RL 50.0 50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/04/22 15:08	03/14/22 12:12  Analyzed  03/12/22 05:45  03/12/22 05:45	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U  U *-	50.0  RL  50.0  50.0  50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/04/22 15:08 03/04/22 15:08	03/14/22 12:12  Analyzed 03/12/22 05:45 03/12/22 05:45	1 Dil Fac

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#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

**Client Sample ID: BH10** Lab Sample ID: 890-2040-19

Date Collected: 03/03/22 10:30 Matrix: Solid Date Received: 03/03/22 15:10

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chroma	tography -	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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	
Toluene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/07/22 12:57	03/10/22 06:33	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/07/22 12:57	03/10/22 06:33	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130				03/07/22 12:57	03/10/22 06:33	
1,4-Difluorobenzene (Surr)	98		70 - 130				03/07/22 12:57	03/10/22 06:33	
Method: Total BTEX - Total BTEX	( Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	70.6		50.0		mg/Kg			03/14/22 12:12	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	
5 5									
(GRO)-C6-C10  Diesel Range Organics (Over	70.6	*_	50.0		mg/Kg		03/04/22 15:08	03/12/22 06:06	
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)	<b>70.6</b> <50.0		50.0 50.0		mg/Kg		03/04/22 15:08 03/04/22 15:08	03/12/22 06:06 03/12/22 06:06	
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)		U							
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate	<50.0	U <b>Qualifier</b>	50.0				03/04/22 15:08	03/12/22 06:06	Dil Fa
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane	<50.0	U <b>Qualifier</b>	50.0				03/04/22 15:08  Prepared	03/12/22 06:06  Analyzed	Dil Fa
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate	<50.0 **Recovery 0.03	U Qualifier S1-	50.0  Limits  70 - 130				03/04/22 15:08  Prepared  03/04/22 15:08	03/12/22 06:06  Analyzed  03/12/22 06:06	Dil Fa
(GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane o-Terphenyl	<50.0 <p>**Recovery 0.03 91 omatography -</p>	U Qualifier S1-	50.0  Limits  70 - 130	MDL		<u>D</u>	03/04/22 15:08  Prepared  03/04/22 15:08	03/12/22 06:06  Analyzed  03/12/22 06:06	Dil Fa

#### **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	 ent Surrogate Re
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	
	Method Blank	95	93	

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	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 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

	MB	MB							
Analyte	Result	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

MB MB

мв мв

MD MD

Surrogate	%Recovery Quali	lifier 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	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 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

MB MB

Surrogate	%Recovery	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

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1006 mg/Kg 101 70 - 130 Toluene 0.100 0.09711 mg/Kg 97 70 - 130 0.100 Ethylbenzene 0.09592 mg/Kg 96 70 - 130 0.200 70 - 130 m-Xylene & p-Xylene 0.1986 mg/Kg 99 0.100 0.09573 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery 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	e ID: Lab	Cont	rol	Sample I	Dup
		_	_		

Prep Type: Total/NA

Prep Batch: 20908

	Spike	LCSD LCSD				%Rec.		KPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1030	mg/Kg		103	70 - 130	2	35	

#### QC Sample Results

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 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

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

Surrogate	%Recovery 0	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** 

Prep Batch: 20908 MS MS %Rec. Sample Sample Spike Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00199 0.0990 0.1074 108 mg/Kg 70 - 130 Toluene <0.00199 U 0.0990 0.1038 105 70 - 130 mg/Kg Ethylbenzene <0.00199 U 0.0990 0.1022 103 70 - 130 mg/Kg 0.198 m-Xylene & p-Xylene <0.00398 U 0.2108 106 70 - 130 mg/Kg o-Xylene <0.00199 U 0.0990 0.1024 mg/Kg 103 70 - 130

MS MS

Surrogate	%Recovery 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** 

**Client Sample ID: BH01** 

Prep Type: Total/NA

Prep Type: Total/NA Prep Batch: 20908

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery (	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

мв мв Result Qualifier MDL Unit Prepared Gasoline Range Organics <50.0 U 50.0 03/04/22 15:08 03/11/22 21:09 mg/Kg

(GRO)-C6-C10

Job ID: 890-2040-1 Client: WSP USA Inc. SDG: 31403360.036.31403360.035 Project/Site: RDU 11

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-20924/1-A

Lab Sample ID: LCS 880-20924/2-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 21381

Analysis Batch: 21381

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20924

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/04/22 15:08	03/11/22 21:09	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/04/22 15:08	03/11/22 21:09	1

MB MB

MB MB

Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20924

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 962.5 mg/Kg 96 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 686.5 \*mg/Kg 69 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-20924/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Analysis Batch: 21381

Prep Type: Total/NA Prep Batch: 20924

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit D Gasoline Range Organics 1000 1041 mg/Kg 104 70 - 130 8 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 768.2 mg/Kg 77 70 - 130 11 20 C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-2040-1 MS Client Sample ID: BH01

**Matrix: Solid** 

Analysis Batch: 21381

Prep Type: Total/NA Prep Batch: 20924

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	1000	1019		mg/Kg		99	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U *-	1000	801.0		mg/Kg		78	70 - 130	
C10 C20)										

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	107		70 - 130

Job ID: 890-2040-1 Client: WSP USA Inc. SDG: 31403360.036.31403360.035 Project/Site: RDU 11

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2040-1 MSD Client Sample ID: BH01 **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 21381 Prep Batch: 20924

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.0	U	998	1099		mg/Kg		107	70 - 130	8	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U *-	998	821.3		mg/Kg		80	70 - 130	3	20
C10-C28)											

MSD MSD

Surrogate	%Recovery	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 Client Sample ID: Method Blank **Prep Type: Soluble** 

Matrix: Solid

**Analysis Batch: 21137** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/Kg			03/09/22 15:48	1

Lab Sample ID: LCS 880-21026/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21137** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	231.2		mg/Kg		92	90 - 110	

Lab Sample ID: LCSD 880-21026/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid **Prep Type: Soluble** 

Analysis Batch: 21137

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	243.8		mg/Kg		98	90 - 110	5	20	

Lab Sample ID: 890-2040-7 MS Client Sample ID: BH04 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21137** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	15.3	F1	2/18	261.4	F1	ma/Ka		87	90 110	 

Lab Sample ID: 890-2040-7 MSD Client Sample ID: BH04 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 21137** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	45.3	F1	248	262.7	F1	mg/Kg		88	90 - 110	1	20

#### QC Sample Results

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 SDG: 31403360.036.31403360.035

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2040-17 MS Client Sample ID: BH09 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21137** 

Sample Sample Spike MS MS %Rec. Result Qualifier Analyte Added Result Qualifier Unit D %Rec Limits Chloride 10.4 250 281.4 mg/Kg 108 90 - 110

Client Sample ID: BH09 Lab Sample ID: 890-2040-17 MSD **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21137** 

Sample Sample Spike MSD MSD %Rec. RPD Qualifier Added Qualifier Limits RPD Limit Analyte Result Result Unit D %Rec Chloride 10.4 250 273.4 mg/Kg 105 90 - 110

Lab Sample ID: MB 880-21025/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21139** 

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 03/09/22 01:05 mg/Kg

Lab Sample ID: LCS 880-21025/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21139** 

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 254.2 102 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-21025/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 21139** 

LCSD LCSD Spike %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 252.3 mg/Kg 101 90 - 110 20

Lab Sample ID: 890-2040-1 MS

**Matrix: Solid** 

**Analysis Batch: 21139** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits 8700 Chloride 4990 13740 mg/Kg 101 90 - 110

Lab Sample ID: 890-2040-1 MSD

**Matrix: Solid** 

**Analysis Batch: 21139** 

MSD MSD %Rec. RPD Sample Sample Spike Result Qualifier Added Analyte Result Qualifier Limits RPD Limit Unit D %Rec 4990 Chloride 8700 13490 mg/Kg 96 90 - 110 20

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Client Sample ID: BH01

Client Sample ID: BH01

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Released to Imaging: 2/8/2024 11250:58PAM

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 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 Batc
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	ВН09	Total/NA	Solid	8021B	20908
890-2040-19	BH10	Total/NA	Solid	8021B	20908

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 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	ВН07	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	ВН09	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	
390-2040-13	BH07	Total/NA	Solid	8015NM Prep	
390-2040-14	BH07	Total/NA	Solid	8015NM Prep	
390-2040-15	BH08	Total/NA	Solid	8015NM Prep	
890-2040-16	BH08	Total/NA	Solid	8015NM Prep	

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Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 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	

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 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 Batcl
890-2040-7	BH04	Soluble	Solid	DI Leach	
890-2040-8	BH04	Soluble	Solid	DI Leach	
390-2040-9	BH05	Soluble	Solid	DI Leach	
390-2040-10	BH05	Soluble	Solid	DI Leach	
390-2040-11	BH06	Soluble	Solid	DI Leach	
390-2040-12	BH06	Soluble	Solid	DI Leach	
90-2040-13	BH07	Soluble	Solid	DI Leach	
90-2040-14	BH07	Soluble	Solid	DI Leach	
90-2040-15	BH08	Soluble	Solid	DI Leach	
90-2040-16	BH08	Soluble	Solid	DI Leach	
90-2040-17	BH09	Soluble	Solid	DI Leach	
90-2040-18	BH09	Soluble	Solid	DI Leach	
90-2040-19	BH10	Soluble	Solid	DI Leach	
90-2040-20	BH10	Soluble	Solid	DI Leach	
/IB 880-21026/1-A	Method Blank	Soluble	Solid	DI Leach	
.CS 880-21026/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
.CSD 880-21026/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
90-2040-7 MS	BH04	Soluble	Solid	DI Leach	
90-2040-7 MSD	BH04	Soluble	Solid	DI Leach	
90-2040-17 MS	BH09	Soluble	Solid	DI Leach	
390-2040-17 MSD	BH09	Soluble	Solid	DI Leach	

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 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 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

Client: WSP USA Inc.

Job ID: 890-2040-1 SDG: 31403360.036.31403360.035

Project/Site: RDU 11

Lab Sample ID: 890-2040-1

**Client Sample ID: BH01** Date Collected: 03/03/22 11:05 **Matrix: Solid** Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-2

Date Collected: 03/03/22 11:07 Matrix: Solid

Date Received: 03/03/22 15:10

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 20908 Total/NA Prep 5.00 g 5 mL 03/07/22 12:57 KL XEN MID Total/NA 8021B 5 mL 03/09/22 23:24 KL XEN MID Analysis 1 5 mL 21187 Total/NA Total BTEX 21336 03/10/22 16:12 AJ XEN MID Analysis 1 Total/NA Analysis 8015 NM 21529 03/14/22 12:12 XEN MID Total/NA 20924 03/04/22 15:08 XEN MID Prep 8015NM Prep 10.01 g DM 10 mL Total/NA Analysis 8015B NM 21381 03/11/22 23:18 AJ XEN MID Soluble 21025 XEN MID Leach DI Leach 5.04 g 50 mL 03/07/22 10:32 CH Soluble Analysis 300.0 20 21139 03/09/22 12:55 CH XEN MID

Lab Sample ID: 890-2040-3 Client Sample ID: BH02 Date Collected: 03/03/22 11:10 **Matrix: Solid** 

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-4 Date Collected: 03/03/22 11:20 **Matrix: Solid** 

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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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Page 33 of 49

Client: WSP USA Inc. Project/Site: RDU 11

Job ID: 890-2040-1

SDG: 31403360.036.31403360.035

Lab Sample ID: 890-2040-4 Client Sample ID: BH02 Date Collected: 03/03/22 11:20

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 8015 NM Analysis 21529 03/14/22 12:12 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 21381 03/12/22 00:01 ΑJ XEN MID 1 21025 03/07/22 10:32 CH XEN MID Soluble Leach DI Leach 5 g 50 mL 300.0 21139 03/09/22 09:31 Soluble Analysis 20 CH XEN MID

Client Sample ID: BH03 Lab Sample ID: 890-2040-5

Date Collected: 03/03/22 11:37 **Matrix: Solid** 

Date Received: 03/03/22 15:10

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-6

Date Collected: 03/03/22 11:40 Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2040-7

Date Collected: 03/03/22 09:25 Date Received: 03/03/22 15:10

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	20924 21381	03/04/22 15:08 03/12/22 01:05	DM AJ	XEN MID XEN MID

**Eurofins Carlsbad** 

**Matrix: Solid** 

**Matrix: Solid** 

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-8

Date Collected: 03/03/22 09:30 **Matrix: Solid** 

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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	СН	XEN MID
Soluble	Analysis	300.0		1			21137	03/09/22 16:23	CH	XEN MID

**Client Sample ID: BH05** Lab Sample ID: 890-2040-9

Date Collected: 03/03/22 09:35 **Matrix: Solid** Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-10 Date Collected: 03/03/22 09:40

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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**Matrix: Solid** 

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

Client Sample ID: BH06 Lab Sample ID: 890-2040-11

Date Collected: 03/03/22 09:45
Date Received: 03/03/22 15:10
Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2040-12

Date Collected: 03/03/22 09:50

Matrix: Solid

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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	СН	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

Lab Sample ID: 890-2040-13

Matrix: Solid

Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2040-14

Date Collected: 03/03/22 10:00 Matrix: Solid
Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

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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

Date Collected: 03/03/22 10:00 Matrix: Solid Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-15

Date Collected: 03/03/22 10:05 **Matrix: Solid** Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-16

Date Collected: 03/03/22 10:10 **Matrix: Solid** Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-2040-17

Date Collected: 03/03/22 10:15 Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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** 

**Matrix: Solid** 

Released to Imaging: 2/8/2024 11250:58PAM

Client: WSP USA Inc. Project/Site: RDU 11

8015B NM

DI Leach

300.0

Job ID: 890-2040-1

21381

21026

21137

50 mL

03/12/22 05:23

03/07/22 10:38

03/09/22 18:03

SDG: 31403360.036.31403360.035

**Client Sample ID: BH09** 

Date Collected: 03/03/22 10:15 Date Received: 03/03/22 15:10

Date Received: 03/03/22 15:10

Lab Sample ID: 890-2040-17

**Matrix: Solid** 

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Soluble	Leach	DI Leach			5 g	50 mL	21026	03/07/22 10:38	CH	XEN MID
l	Soluble	Analysis	300.0		1			21137	03/09/22 17:45	CH	XEN MID

Client Sample ID: BH09 Lab Sample ID: 890-2040-18 Date Collected: 03/03/22 10:25

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 5035 5.03 g 20908 03/07/22 12:57 KL XEN MID Prep 5 mL Total/NA 8021B 5 mL 5 mL 03/10/22 05:52 KL XEN MID Analysis 1 21187 Total/NA Total BTEX 21336 03/10/22 16:12 XEN MID Analysis AJ 1 21529 Total/NA Analysis 8015 NM 03/14/22 12:12 AJ XEN MID 20924 XEN MID Total/NA Prep 8015NM Prep 10.04 g 10 mL 03/04/22 15:08 DM

**Client Sample ID: BH10** Lab Sample ID: 890-2040-19

1

4.95 g

**Matrix: Solid** 

AJ

СН

CH

XEN MID

XEN MID

XEN MID

Date Collected: 03/03/22 10:30 Date Received: 03/03/22 15:10

Analysis

Analysis

Leach

Total/NA

Soluble

Soluble

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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** Lab Sample ID: 890-2040-20

Date Collected: 03/03/22 10:35 Matrix: Solid Date Received: 03/03/22 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

**Eurofins Carlsbad** 

### **Accreditation/Certification Summary**

 Client: WSP USA Inc.
 Job ID: 890-2040-1

 Project/Site: RDU 11
 SDG: 31403360.036.31403360.035

### Laboratory: Eurofins Midland

_			
Authority	Program	Identification Number	<b>Expiration Date</b>
Texas	NELAP	T104704400-21-22	06-30-22

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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	

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### **Method Summary**

Client: WSP USA Inc. Job ID: 890-2040-1 Project/Site: RDU 11 S

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

**Eurofins Carlsbad** 

### **Sample Summary**

Client: WSP USA Inc.
Project/Site: RDU 11

Job ID: 890-2040-1 SDG: 31403360.036.31403360.035

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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

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XMZCO ABORATORIES

WSP

Joseph Hernandez

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Work Order No:

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Chain of Custody

Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

: (if different)

Jim Raley WPX Energy

Program: UST/PST □PRP □Brownfields RRC □Superfund □

Work Order Comments

Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296

Revised Date 051418 Rev. 2018 1			6									5
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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Relino	me	Date/Time		ure)	Received by: (Signature)	Received		∵(Signature)	Relinquished by: (Signature)
	usly negotiated.	Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses of expenses incurred by the chief, it such to see the cost of samples and shall not assume any responsibility for any losses of expenses incurred by the chief, it such to see the cost of samples and shall not assume any feet and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ot analyzed. Thes	co, but no	ed to Xen	submitt	55 for each sample	nd a charge of \$	each project a	st of sampl	liable only for the co arge of \$75.00 will be	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 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.
	erms and conditions	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	, its affiliates and	to Xenco,	ompany	n client	urchase order from	titutes a valid p	samples cons	uishment o	document and reling	Notice: Signature of this
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Sample Comments			Chlorid	Chloria	TPH (E	Numb	Depth (Feet)	Time Sampled	Date Sampled	Matrix	tification	Sample Identification
lab, if received by 4:30pm			1e (E	H	PA 8	er o		Total Containers:	Tota	NA	ils: Yes No	Sample Custody Seals:
TAT starts the day recevied by the	-	080-20-0			015)	Co	- 0.2	Correction Factor:	Согге	N/X	s: Yes No	Cooler Custody Seals:
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						s	(Yes) No	Wet Ice:	≪es No	Temp Blank:		SAMPLE RECEIPT
API: PA.2021.04159.EXP.01	AP						Date:	Due Date			Gilbert Moreno	Sampler's Name:
	AFE						ļ .	Rush	728551205	8,nAB17	nAB1728553778,nAB1728551205	Incident ID
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Work Order Notes		ANALYSIS REQUEST			_		Turn Around	Tu			RDU 11	Project Name:
Otner:	Deliverables: EDD — ADaP1 —	Deliverab			om,	wsp.c	Anna.Byers@wsp.com	Email			281-702-2329	Phone
YRRP Level IV	Level III LPST/UST	Reporting	8220	Carlsbad, NM 88220	arlsbac		City, State ZIP			705	Midland, TX 79705	City, State ZIP:
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Brownielas AAC Superium	ا کر د	Program		ergy	WPX Energy	me	Company Nar				WSP	Company Name:

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Revised Date 051418 Rev. 2018 1

Date/Time

Address:

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### Chain of Custody

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281) 240-4200	281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
(432-704-5440)	(432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296

Houston, TX (

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. 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 Sample Custody Seals: Received Intact: Sampler's Name: Cooler Custody Seals: City, State ZIP: emperature (°C) Company Name: SAMPLE RECEIPT roject Number: roject Name: Relinquished by: (Signature) Total 200.7 / 6010 Circle Method(s) and Metal(s) to be analyzed Sample Identification **BH09 BH09 BH08 BH08 BH07 BH**06 **BH06 BH07** Gilbert Moreno WSP 31403360.036, 31403360.035 **RDU 11** 3300 North A Street Joseph Hernandez nAB1728553778,nAB1728551205 Midland, TX 79705 281-702-2329 200.8 / 6020: Yes Yes Temp Blank: 8 ö S Matrix Ġ NA S ഗ S S N S ഗ ഗ S ഗ ഗ Yes No Received by: (Signature) Sampled 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 3.3.22 Date Correction Factor: **Total Containers:** Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000) 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Thermometer ID TCLP / SPLP 6010: 8RCRA Sampled 10:35 10:30 10:25 10:15 9.55 9:50 9:45 10:10 10:05 10:00 Time Wet Ice: Rush: Due Date: Routine 😾 Turn Around Depth (Feet Anna.Byers@wsp.com Yes No 0.5 0.5 0.5 0.5 0.5 0.2 : (if different) 4 4 4 4 4 \_ \_ **Number of Containers** Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 5315 Buena Vista Dr Carlsbad, NM 88220 WPX Energy Date/Time Jim Raley × **TPH (EPA 8015)** × ×  $\times$ × × × × × × × × × × × × ×  $\times$ × × BTEX (EPA 0=8021) × × × × × × × ×  $\times$ × Chloride (EPA 300.0) Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Relinquished by: (Signature) **ANALYSIS REQUEST** Deliverables: EDD Reporting:Level II Level III 中ST/UST Program: UST/PST □PRP □Brownfields □RC Received by: (Signature) ㅈ www.xenco.com Se **Work Order Comments** A SiO2 Na Sr Tl Sn U V ADaPT 🗀 1631 / 245.1 / 7470 / 7471 : Hg

Zn

Sample Comments

TAT starts the day recevied by the lab, if received by 4:30pm

API: PA.2021.04159.EXP.01

Work Order No:

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PRRP Level IV

Superfund

Other:

Work Order Notes

**Eurofins Carlsbad** 

## **Chain of Custody Record**

1089 N Canal St. Carlsbad, NM 88220 Phone 575 088 3100 Fav. 575 088 3100	•	Chain of Custody Record	of Cust	tody R	ecor	<u>a</u>											0			Environment Testing America
Client Information (Sub Contract Lab)	Sampler			Lab PM Kramer	M her Jessica	Š					Car	Carrier Tracking No(s)	cking	o(s)			<b>8</b> 8	COC No: 890-652 1		
	Phone			E-Mail jessic	E-Mail  essica kramer@eurofinset com	er@eu	rofins	et con	3		Ne Sta	State of Origin. New Mexico	8 8				Page Page	Page Page 1 of 3	ı	
Company: Eurofins Environment Testing South Centr					Accreditations Requ	reditations Required LAP - Texas	quired (	(See no	ote):		ŀ		l				4 dor	Job #: 890-2040-1		
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Phone: 432-704-5440(Tel)	PO #				)	-	<del></del>			····	,	· i				V. i	- Ω П	MeOH Amchlor		R - Na2S2O3 S H2SO4
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			Sample Type	Matrix (W=water S=solid.	Filtered Som MS/MS	ORGFM_28D  MOD_NM/80*	3/5035FP_C	MOD_Calc	_BTEX_GCV	····						Number o				
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab) <sub>E</sub>	BT=Tissue, A=Air)	8947770			801	Tota							Tota		Special	Instr	Special Instructions/Note:
	X	X	5 CO226	ion Code:	XX					l						abla			V	
BH01 (890-2040-1)	3/3/22	11 05 Mountain		Solid		×	×	×	×								Willia A			
BH01 (890-2040-2)	3/3/22	11 07 Mountain		Solid		×	×	×	×							<u></u>				
ВН02 (890-2040-3)	3/3/22	11 10 Mountain		Solid		×	×	×	×											
BH02 (890-2040-4)	3/3/22	11 20 Mountain		Solid		×	×	×	×					_		4	Control 1			
ВН03 (890-2040-5)	3/3/22	11 37 Mountain		Solid		×	×	×	×						-	-4.4	atternisa			
ВН03 (890-2040-8)	3/3/22	11 40 Mountain		Solid		×	×	×	×											
ВН04 (890-2040-7)	3/3/22	09 25 Mountain		Solid		×	×	×	×											The second secon
BH04 (890-2040-8)	3/3/22	09 30 Mountain		Solid		×	×	×	×										į	
BH05 (890-2040-9)	3/3/22	09 35 Mountain		Solid		×	×	×	×								- 9 <del></del>			
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.	nt Testing South Centr bove for analysis/tests ontral, LLC attention in	al LLC places t /matrix being an nmediately If al	he ownership on the sailyzed the sailyzed the sail requested ac	of method anal mples must be creditations are	yte & accr shipped b current to	editation ack to the	n compl ne Euro eturn th	liance u fins En e signe	Jpon ou Vironm Ed Chai	ut subco ent Tes n of Cu	ontract ting So stody a	aborato uth Cer ttesting	ories. 1 otral LI to said	his sa C labo	nple s ratory icance	hipme or oth to Eu	nt is fo er inst rofins	rwarded unde ructions will be Environment T	r chain provic	n-of-custody If the ded. Any changes to South Central LLC.
Possible Hazard Identification					Sam	Sample Disposal ( A )	spos	A A	fee n	ee may be assessed if samples	asse	ssed	if sa	nple	are	retai	ned	are retained longer than 1 month)	1 3	onth)
Deliverable Requested I II III IV, Other (specify)	Primary Deliverable Rank	able Rank 2			Spec	Special Instructions/QC	ial Instructions/QC	ons/Q	CRe	Requirements	nents	ents	7	ľ		2	Charles of	S		MOITING
Empty Kit Relinquished by:		Date			Time.			·				Met	Method of Shipment:	hipme	77	ı	2	から	2	
Relinquished by $O(\omega G) = 3422$	Date/Time			Company	-77	Received by:		$\bigcup$	)			ŀ			\$4	$\Im$	+	3	0	Company
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Custody Seals Intact: Custody Seal No						Cooler Temperature(s)	empera	ature(s)	റ്	and Other Remarks	Remar	ŝ	l		ı		l		ŀ	
																			_	Var: 06/09/2021

Carlsbad NM 88220

1089 N Canal St.

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**Eurofins Carlsbad** 

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# Chain of Custody Record

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Environment Testing
America

Project Name: RDU 11 BH07 (890-2040-13) ВН05 (890-2040-10) State Zip: TX, 79701 BH09 (890-2040-18) BH08 (890-2040-16) BH08 (890-2040-15) BH07 (890-2040-14) BH06 (890-2040-12) BH06 (890-2040-11) 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 aboratory 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 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. BH09 (890-2040-17) Phone. 575-988-3199 Fax: 575-988-3199 Possible Hazard Identification Client Information (Sub Contract Lab) Empty Kit Relinquished by Deliverable Requested I, II III IV Other (specify) Sample Identification - Client ID (Lab ID) **Midland** 1211 W Florida Ave 32-704-5440(Tel) urofins Environment Testing South Centr elinquished by elinquished by elinquished by Custody Seals Intact: nconfirmed hipping/Receiving Yes ∆ No Custody Seal No S 1 0 Due Date Requested 3/9/2022 .# OM Date/ Primary Deliverable Rank 88000203 PO#: TAT Requested (days): Phone: Date/Time )ate/Time Sample Date 3/3/22 3/3/22 3/3/22 3/3/22 3/3/22 3/3/22 3/3/22 3/3/22 3/3/22 Mountain 09 50 Mountain 10 10 Mountain 09 55 Mountain 09 45 Date Mountain 10 25 Mountain 10 15 Mountain 10 00 Mountain 10 05 Sample <u>Mountain</u> 09 40 Time (C=comp, G=grab) Sample Type Preservation Code: Company Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid E-Mail Kramer Jessica jessica kramer@eurofinset com Field Filtered Sample (Yes or No) NELAP - Texas I ime. Accreditations Required (See note) Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Received by × × × × 300 ORGFM 28D/DI LEACH Chloride Cooler Temperature(s) °C and Other Remarks Received by Received by: × × × × × × × × × 8015MOD NM/8015NM S Prep Full TPH × × × ×  $\times$ × × × × × × × 8021B/5035FP\_Calc BTEX × × × × × × × 8015MOD\_Calc × × × Analysis Requested × Total BTEX GCV × × × × × × New Mexico State of Origin Carrier Tracking No(s) thod of Shipment: Date/Time X Total Number of containers \_ أزفتغ \* 4 A HCL
B- NaOH
C Zn Acetate
C Zn Acetate
D- Nitric Acid
E NaHSO4
F MoOH
G-Amchlor
H Ascorbic Acid
I Ice
J Di Water
K EDTA
L EDA COC No 890-652 2 Page: Page 2 of 3 Preservation Codes 890-2040-1 چ Special Instructions/Note M - Hexane
N None
O - AsNao2
P Na2O4S
P Na2SO3
R - Na2SO3
S H2SO4
T - TSP Dodecahydrate U - Acetone V MCAA W - pH 4-5 Z other (spe Company MCAA other (specify) Months

Ver: 06/08/2021

Carlsbad, NM 88220 Phone 575-988-3199 Fax 575-988-3199

**Eurofins Carlsbad** 

1089 N Canal St.

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## Chain of Custody Record

Project Name: RDU 11 State, Zip: TX, 79701 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 aboratory 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. BH10 (890-2040-20) Sample Identification - Client ID (Lab ID) **Eurofins Environment Testing South Centr** Possible Hazard Identification BH10 (890-2040-19) 432-704-5440(Tel) Relinquished by Empty Kit Relinquished by Deliverable Requested | II III IV Other (specify) Midland 1211 W Florida Ave Client Information (Sub Contract Lab elinquished by hipping/Receiving linquished by: nconfirmed E Custody Seal No b ₩O# Due Date Requested 3/9/2022 Sampler Date/Time Primary Deliverable Rank 88000203 PO#: TAT Requested (days): Phone ⊃ate/Time late/lime Sample Date 3/3/22 3/3/22 Mountain 10 35 Mountain Sample 10 30 (C=comp. Sample Preservation Code: Company Company Matrix Solid Solid jessica kramer@eurofinset.com E-Mail Kramer, Jessica Lab PM Field Filtered Sample (Yes or No) lime NELAP - Texas Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Cooler Temperature(s) °C and Other Remarks. Received by Received by Received by × × 300 ORGFM 28D/DI LEACH Chloride × × 8015MOD\_NM/8015NM\_S\_Prep Full TPH 8021B/5035FP\_Calc BTEX × × 8015MOD\_Calc × × Analysis Requested × × Total\_BTEX\_GCV State of Origin
New Mexico Carrier Tracking No(s) Method of Shipment Date/Time Date/Time Total Number of containers 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 COC No: 890-652 3 Preservation Page 3 of 3 390-2040-1 Special Instructions/Note: M Hexane
N None
O AsNao2
P - Na2O4S
O Na2SO3
R - Na2SO3
S + P2SO4
T TSP Dodecahydrate
U - Acetone
V MCAA
W pH 4-5
Z other (specify) Ver: 06/08/2021 Company Months

### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-2040-1

SDG Number: 31403360.036.31403360.035

Login Number: 2040 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

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### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-2040-1

SDG Number: 31403360.036.31403360.035

Login Number: 2040 **List Source: Eurofins Midland** 

List Creation: 03/04/22 01:21 PM

LIST NUII	IDEI. Z	
Creator:	Lowe,	Katie

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	True	

**Eurofins Carlsbad** 

<6mm (1/4").

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**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:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	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

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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

QUESTIONS

Action 305088

### **QUESTIONS**

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	305088
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1712951426
Incident Name	NAB1712951426 ROSS DRAW UNIT #011 @ 30-015-24307
Incident Type	Oil 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	04/20/2017
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil 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: Human Error   Other (Specify)   Crude Oil   Released: 50 BBL   Recovered: 40 BBL   Lost: 10 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
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.

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### State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 2

Action 305088

QUESTIONS (continued)		
Operator:  WPX Energy Permian, LLC  Devon Energy - Regulatory  Oklahoma City, OK 73102	OGRID: 246289 Action Number: 305088 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.	

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.

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.

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.

Name: James Raley
Title: EHS Professional
Email: jim.raley@dvn.com
Date: 01/18/2024

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### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS, Page 3

Action 305088

**QUESTIONS** (continued)

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory Oklahoma City, OK 73102	Action Number: 305088
	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 1000 (ft.) and ½ (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	

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.		
Yes		
ination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Yes		
No		
in milligrams per kilograms.)		
5220		
58.3		
58.3		
0		
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.		
10/30/2023		
10/30/2023		
10/30/2023		
0		
0		
0		
0		
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.		
7		

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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### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 4

Action 305088

**QUESTIONS** (continued)

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	305088
	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.

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: 01/18/2024

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

Released to Imaging: 2/8/2024 11:50:58 AM

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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

QUESTIONS, Page 5

Action 305088

### **QUESTIONS** (continued)

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	305088
	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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### State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 6

Action 305088

QUESTIONS	(continued)

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	305088
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### QUESTIONS

Sampling Event Information		
Last sampling notification (C-141N) recorded	305109	
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	65	
What was the sampling surface area in square feet	38500	

emediation steps have been completed.
Yes
Yes
No
Yes
38500
4380
Yes
38500
4380
Remediation area has been restored with clean backfill material and re-seeded with BLM Seed Mixture #2 following the appropriate BLM re-seeding guidelines for seed to sqft area ratio.

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.

I hereby agree and sign off to the above statement

I hereby agree and sign off to the above statement

Title: EHS Professional
Email: jim.raley@dvn.com
Date: 01/18/2024

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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

QUESTIONS, Page 7

Action 305088

### **QUESTIONS** (continued)

Operator:	OGRID:
WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	246289
	Action Number: 305088
	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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### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 305088

### **CONDITIONS**

Operator:	OGRID:
WPX Energy Permian, LLC Devon Energy - Regulatory	246289
	Action Number:
Oklahoma City, OK 73102	305088
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### CONDITIONS

Created By	d Condition	Condition Date
bhall	Remediation Closure approved. All areas not reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as practical. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. Sample locations included in the approved workplan (BH01, BH06, and BH12) will need to meet the reclamation requirements per 19.15.29.13 NMAC at time of reclamation. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	2/8/2024