

Incident ID	
District RP	NRM2016456845
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?	>50 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

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Incident ID	NRM201645684
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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: Lynda Laumbach Title: Environmental Specialist

Signature:  Date: 08/24/2020

email: Lynda.Laumbach@wpenergy.com Telephone: (575)725-1647

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM201645684
District RP	
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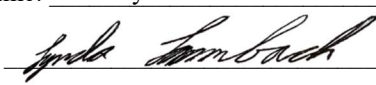
## Closure

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 (electronic submittals in .pdf format are preferred) 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.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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.

Printed Name: Lynda Laumbach Title: Environmental Specialist  
Signature:  Date: 08/06/2020  
email: Lynda.Laumbach@wpenergy.com Telephone: (575)725-1647

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



August 24, 2020  
Mike Bratcher  
NMOCD District 2  
811 South First Street  
Artesia, NM 88210

Re: Longview Federal 12 #015H Release Closure Request (NRM2016456845)

Mr. Bratcher,

This report summarizes the excavation, sampling, and secondary containment inspection activities at the Longview Federal 12 #015H well pad (Site). The site map is provided as Figure 01. On June 6, 2020, a hole developed in the bottom of the heater treater unit causing 119 barrels (bbls) of produced water to be released into the lined secondary containment. A tear on the side of the containment caused an estimated 1bbl of produced water to impact the pad surface. 119 bbls from the containment was recovered with a vacuum truck.

*Well Location:* Longview Federal 12 #015H

*API #:* 30-015-41092

*NMOCD Reference #:* NRM2016456845

*Site Location Description:* Unit Letter C, Section 12, Township 23S, Range 28E

*Release Latitude/Longitude:* N32.325495, W104.0426926

*Land Jurisdiction:* Federal

*Agency Notification:* New Mexico Oil Conservation Division (NMOCD), Artesia District Office

*Agency Notification Date(s):* June 06, 2020

*Source of Release:* Equipment failure

*Release Contents:* Produced water

*Volume Released:* 120 barrels

*Volume Recovered:* 119 barrels

*Estimated Depth to Groundwater:* >50 feet

### **Closure Criteria Determination**

The Closure criteria of this site was determined based on the New Mexico Administrative Code (NMAC) Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12). Depth to groundwater at the site is estimated to be greater than 50 feet below ground surface (bgs) based on permitted well C-04418-POD1, completed on March 31, 2020. The well was completed to a depth of 55 feet, and groundwater was not encountered or observed prior to the plugging of the well on April 3, 2020. Plug Record of the Well is provided as Attachment 02. Based on the criteria outlined above, the closure criteria from the NMOCD Table 1 are as follows:

- 10,000 milligrams per kilogram (mg/kg) Chloride
- 50 mg/kg Benzene, Toluene, Ethylbenzene, and xylenes (BTEX)
- 10 mg/kg Benzene
- 2,500 mg/kg Total Petroleum Hydrocarbons (TPH)
- 1,000 mg/kg Diesel range organics (DRO) + Gasoline range organics (GRO)

**Field Activities**

On June 9, 2020, WPX personnel were onsite to map the release area. The visually impacted area is provided in Figure 02. A crew power washed the containment to prepare for liner repair and liner inspection. No other liner compromises were found while washing the liner. A patch was completed on the liner on June 15, 2020. Notification of liner inspection and sample collection was scheduled with the NMOCD on July 06, 2020. The liner inspection and excavation activities were completed July 07, 2020 and final samples were collected. Pictures of the secondary containment inspection and excavation activities are provided in Attachment 03. Sidewall samples SW01 & SW02, Floor sample FS01, and discrete delineation samples DS01 through DS03 were collected to delineate and provide sufficient evidence of compliance. A total of 16 cubic yards was excavated and hauled to disposal. All waste was hauled to R360 Hobbs Transportation Facility, 4507 W Carlsbad Hwy in Lea County, New Mexico. The excavation covered 270 square feet with an average depth of one foot bgs.

**Sampling Activities**

Floor and sidewall samples were collected via 5-point composite sampling over areas no greater than 200 square feet across the excavation area. Discrete samples were taken to show that contamination was contained to the pad surface. All samples were taken with decontaminated equipment, jarred in precleaned glass soil jars, labelled with sample name, date, Site name, and depth, and immediately placed on ice to lower sample temperatures below 4° Celsius, adhering to strict chain of custody of Xenco laboratories. Analysis was completed at Xenco Laboratories in Carlsbad, NM. All samples were analyzed for Chlorides via Method EPA 300.0, TPH via Method 8015M, and BTEX via Method 8021B.

**Laboratory Analytical Results**

The laboratory analytical results for the excavation of impacted soils confirmed that all floor, sidewall, and discrete samples were compliant with the closure criteria for this Site. All samples are below the allowable standards for Chloride, BTEX, and TPH. The sample locations are depicted in Figure 03. All sample results are summarized in Table 1 and complete lab results are provided in Attachment 04.

- Chloride samples ranged from 72.4 to 6,150 mg/kg
- BTEX analysis was below the Laboratory detectable limit
- Benzene analysis was below the Laboratory detectable limit
- TPH ranged from below the Laboratory detectable limit to 106 mg/kg

**Conclusions**

The laboratory analytical results to address the impacted soils from NRM2016456845 demonstrates compliance with the Table 1 Closure Criteria set forth by the NMOCD. The secondary containment was determined to be intact and functioning properly to contain releases. Actions to mitigate initial impacts of this site have proven a successful remediation. WPX requests no further action for this incident. The updated C-141 is included at the front of this report. If any questions or further information is warranted, please do not hesitate to contact me by cell phone at (575) 725-1647 or by email at [Lynda.Laumbach@wpxenergy.com](mailto:Lynda.Laumbach@wpxenergy.com).

Best regards,



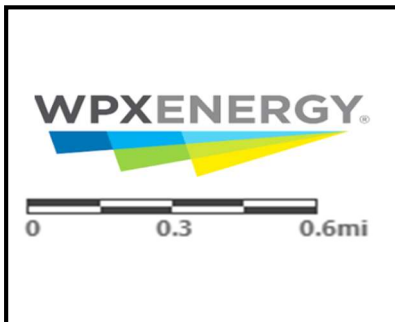
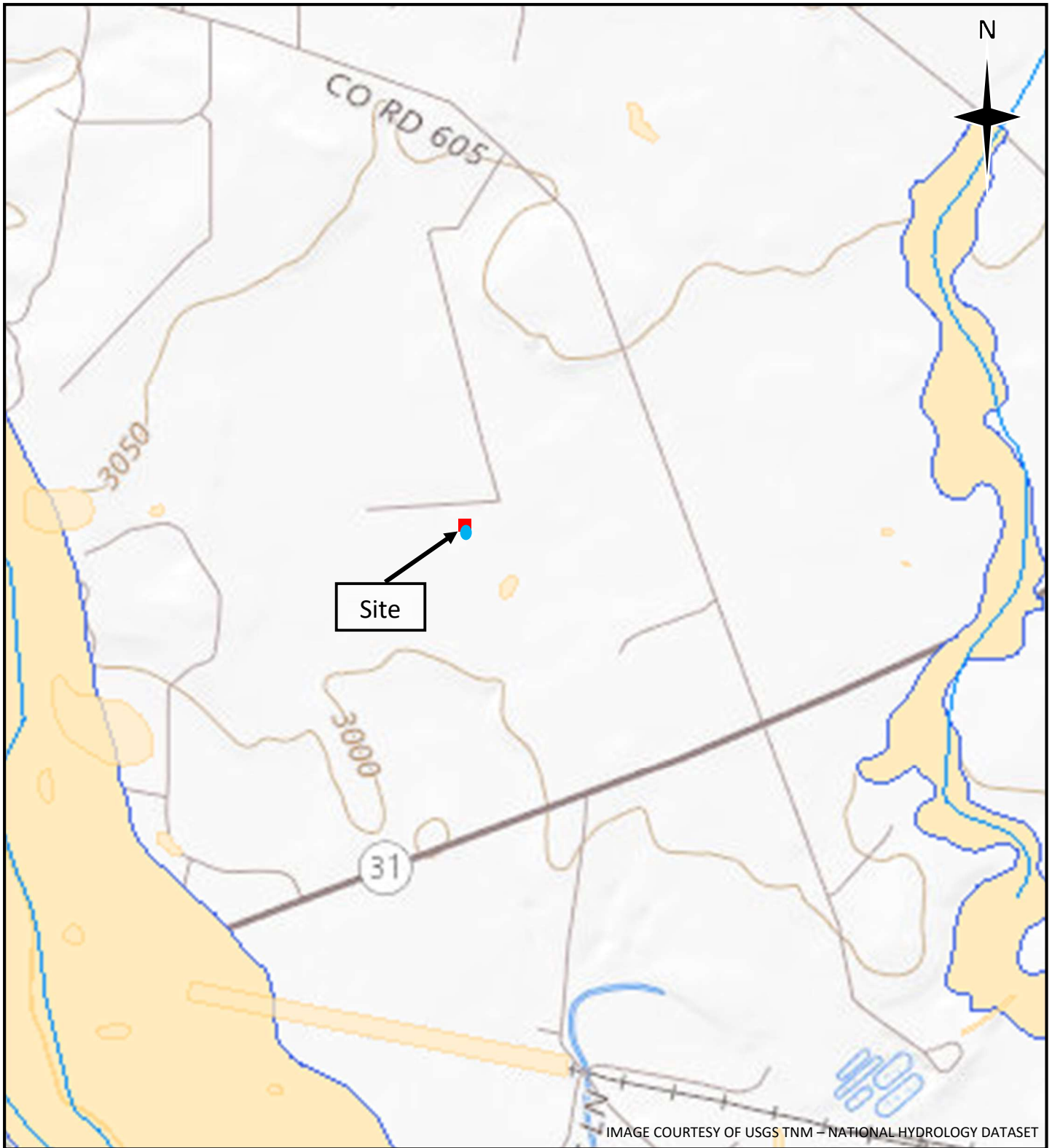
Lynda Laumbach  
Environmental Specialist

CC: Jim Raley, WPX  
Robert Hamlet, NMOCD  
Victoria Venegas, NMOCD

Attachments:

Figure 01 Site Map  
Figure 02 Excavation Activities  
Table 01 Sample Results  
Attachment 01 Water Well C 04418 POD1 Plug Record  
Attachment 02 Photograph Log  
Attachment 03 Laboratory Analytical Results

# Figures



Legend

- Site
- ▬ OSE Water Body
- 100 year flood plane
- C-04418-POD1

Figure 01  
Longview Federal 12-15H

Permian Basin, Eddy County, NM

NRM2016456845






25 ft



Legend

 Tear in Liner


 Release Extent

Figure 02  
Longview Federal 12-15H

Permian Basin, Eddy County, NM

NRM2016456845

# Table(s)

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Longview Federal 12 #015H**  
**NMOCD REFERENCE NUMBER: NRM2016456845**



Sample Name	Depth (ft bgs)	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SW01	0-1	7/9/2020	<0.002	<0.002	<50.1	<50.1	<50.1	-	-	5370.0
SW02	0-1.5	7/9/2020	<0.0019	<0.0019	<50.1	<50.1	<50.1	-	-	4260.0
FS01	0-1.5	7/9/2020	<0.002	<0.002	<50.0	<50.0	<50.0	-	-	6150.0
DS01	2	7/9/2020	<0.0019	<0.0019	<50.1	54.8	51.1	54.8	106	2840.0
DS02	0(surface)	7/9/2020	<0.002	<0.002	<50.3	<50.3	<50.3	-	-	72.4
DS03	0(surface)	7/9/2020	<0.002	<0.002	<20.0	<50.2	<50.2	-	-	215.0
<b>NMOCD Table 1 Closure Criteria</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10000.0</b>
<p>Reference: BTEX: benzene, toluene, ethylbenzene, and total xylenes      mg/kg: milligrams per kilogram</p> <p>GRO: gasoline range organics      NMOCD: New Mexico Oil Conservation Division</p> <p>DRO: diesel range organics      TPH: total petroleum hydrocarbons</p> <p>ft bgs: feet below ground surface</p> <p>NMOCD Table 1 Closure Criteria: NMAC 19.15.29 August 2018 criteria for soils impacted based on characterization</p>										

# Attachment 01



# PLUGGING RECORD



**NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C 04418  
 Well owner: WPX Energy Phone No.: \_\_\_\_\_  
 Mailing address: 5315 Buena Vista Drive  
 City: Carlsbad State: NM Zip code: 88220

## II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: HRL Compliance Solutions
- 2) New Mexico Well Driller License No.: 1789 Expiration Date: 12/20/2020
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):  
Kalvin (Kelly) Padilla
- 4) Date well plugging began: 4/3/2020 Date well plugging concluded: 4/3/2020
- 5) GPS Well Location: Latitude: 32 deg, 19 min, 29.6 sec  
 Longitude: -104 deg, 02 min, 33.7 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),  
 by the following manner: Measuring Tape
- 7) Static water level measured at initiation of plugging: > 55 ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: Not Applicable
- 9) Were all plugging activities consistent with an approved plugging plan? Not Applicable If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:**

**III. SIGNATURE:**

Signature of Well Driller

4/23/2020  
Date

# Attachment 02





Picture 1- West face, northeast edge of Site

8-Jun-20



9-Jul-20



Picture 2- South face, north edge of Site

8-Jun-20



9-Jul-20







Picture 3- East face, facing entrance to location

8-Jun-20



9-Jul-20



Picture 4- East face liner inspection

8-Jun-20



9-Jul-20





Picture 5- Southwest edge of liner

8-Jun-20



9-Jul-20



Picture 6- Northeast edge liner, facing north- closeup of failed section

8-Jun-20



9-Jul-20





Picture 7- North face, east edge of liner

9-Jul-20



Picture 8- North face, south edge of liner

9-Jul-20



# Attachment 03



## Certificate of Analysis Summary 666859

WPX Energy Permian Basin, LLC, Carlsbad, NM

Project Name: Longview 12-15

Project Id: 06062020

Date Received in Lab: Fri 07.10.2020 11:15

Contact: Lynda Laumbach

Report Date: 07.29.2020 16:05

Project Location:

Project Manager: Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	666859-001	666859-002	666859-003			
	<b>Field Id:</b>	SW01	SW02	FS01			
	<b>Depth:</b>	0-1 ft	0-1.5 ft	0-1.5 ft			
	<b>Matrix:</b>	SOIL	SOIL	SOIL			
	<b>Sampled:</b>	07.09.2020 11:20	07.09.2020 11:30	07.09.2020 11:10			
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00			
	<b>Analyzed:</b>	07.10.2020 16:04	07.10.2020 16:26	07.10.2020 16:47			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00404 0.00404			
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202			
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00			
	<b>Analyzed:</b>	07.10.2020 14:59	07.10.2020 15:05	07.10.2020 15:11			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		5370 50.4	4260 49.7	6150 49.9			
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20			
	<b>Analyzed:</b>	07.10.2020 13:25	07.10.2020 14:26	07.10.2020 14:47			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
		<50.1 50.1	<50.1 50.1	<50.0 50.0			
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.1 50.1	<50.0 50.0			
Diesel Range Organics (DRO)		<50.1 50.1	<50.1 50.1	<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.1 50.1	<50.0 50.0			
Total TPH		<50.1 50.1	<50.1 50.1	<50.0 50.0			

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





**Analytical Report 666859**

**for**

**WPX Energy Permian Basin, LLC**

**Project Manager: Lynda Laumbach**

**Longview 12-15**

**06062020**

**07.29.2020**

Collected By: Client

**1089 N Canal Street**  
**Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.29.2020

Project Manager: **Lynda Laumbach**  
**WPX Energy Permian Basin, LLC**  
5315 Buena Vista Dr.  
Carlsbad, NM 88220

Reference: Eurofins Xenco, LLC Report No(s): **666859**  
**Longview 12-15**  
Project Address:

**Lynda Laumbach:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 666859. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 666859 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

---

**Jessica Kramer**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 666859****WPX Energy Permian Basin, LLC, Carlsbad, NM**

Longview 12-15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	07.09.2020 11:20	0 - 1 ft	666859-001
SW02	S	07.09.2020 11:30	0 - 1.5 ft	666859-002
FS01	S	07.09.2020 11:10	0 - 1.5 ft	666859-003





## CASE NARRATIVE

***Client Name: WPX Energy Permian Basin, LLC***

***Project Name: Longview 12-15***

Project ID: 06062020  
Work Order Number(s): 666859

Report Date: 07.29.2020  
Date Received: 07.10.2020

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**Sample receipt non conformances and comments:**

V1.001 Revision (client email) Corrected typo on sample 002

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **SW01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666859-001 Date Collected: 07.09.2020 11:20 Sample Depth: 0 - 1 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight  
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5370	50.4	mg/kg	07.10.2020 14:59		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight  
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	07.10.2020 13:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	07.10.2020 13:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	07.10.2020 13:25	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	07.10.2020 13:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	07.10.2020 13:25	
o-Terphenyl	84-15-1	71	%	70-135	07.10.2020 13:25	



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **SW01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666859-001 Date Collected: 07.09.2020 11:20 Sample Depth: 0 - 1 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight  
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.10.2020 16:04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.2020 16:04	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.10.2020 16:04		
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.10.2020 16:04		



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **SW02** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666859-002 Date Collected: 07.09.2020 11:30 Sample Depth: 0 - 1.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight  
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4260	49.7	mg/kg	07.10.2020 15:05		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight  
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	07.10.2020 14:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	07.10.2020 14:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	07.10.2020 14:26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	07.10.2020 14:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	07.10.2020 14:26	
o-Terphenyl	84-15-1	74	%	70-135	07.10.2020 14:26	



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **SW02**  
Lab Sample Id: 666859-002

Matrix: Soil  
Date Collected: 07.09.2020 11:30

Date Received: 07.10.2020 11:15  
Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.2020 16:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.2020 16:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.10.2020 16:26	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.10.2020 16:26	



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **FS01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666859-003 Date Collected: 07.09.2020 11:10 Sample Depth: 0 - 1.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight  
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6150	49.9	mg/kg	07.10.2020 15:11		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight  
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.10.2020 14:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.10.2020 14:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.10.2020 14:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.10.2020 14:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.10.2020 14:47	
o-Terphenyl	84-15-1	89	%	70-135	07.10.2020 14:47	



# Certificate of Analytical Results 666859

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **FS01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666859-003 Date Collected: 07.09.2020 11:10 Sample Depth: 0 - 1.5 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight  
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 16:47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 16:47	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 16:47		
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.10.2020 16:47		

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation





## WPX Energy Permian Basin, LLC

### Longview 12-15

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

MB Sample Id: 7707139-1-BLK

Matrix: Solid

LCS Sample Id: 7707139-1-BKS

Prep Method: E300P

Date Prep: 07.10.2020

LCSD Sample Id: 7707139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	243	97	255	102	90-110	5	20	mg/kg	07.10.2020 13:52	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

Parent Sample Id: 666761-001

Matrix: Soil

MS Sample Id: 666761-001 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666761-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.7	200	226	102	227	102	90-110	0	20	mg/kg	07.10.2020 14:09	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

Parent Sample Id: 666861-002

Matrix: Soil

MS Sample Id: 666861-002 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666861-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.7	200	217	102	217	102	90-110	0	20	mg/kg	07.10.2020 15:27	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3131397

MB Sample Id: 7707153-1-BLK

Matrix: Solid

LCS Sample Id: 7707153-1-BKS

Prep Method: SW8015P

Date Prep: 07.10.2020

LCSD Sample Id: 7707153-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1240	124	1230	123	70-135	1	35	mg/kg	07.10.2020 10:43	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1210	121	70-135	1	35	mg/kg	07.10.2020 10:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		111		114		70-135	%	07.10.2020 10:43
o-Terphenyl	83		97		99		70-135	%	07.10.2020 10:43

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3131397

Matrix: Solid

MB Sample Id: 7707153-1-BLK

Prep Method: SW8015P

Date Prep: 07.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.10.2020 10:23	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * | (C - E) / (C + E) |$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



## WPX Energy Permian Basin, LLC

### Longview 12-15

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3131397

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW8015P

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1140	114	1150	115	70-135	1	35	mg/kg	07.10.2020 13:45	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1120	112	70-135	2	35	mg/kg	07.10.2020 13:45	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		98		70-135	%	07.10.2020 13:45
o-Terphenyl	74		83		70-135	%	07.10.2020 13:45

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3131399

MB Sample Id: 7707124-1-BLK

Matrix: Solid

LCS Sample Id: 7707124-1-BKS

Prep Method: SW5035A

Date Prep: 07.10.2020

LCSD Sample Id: 7707124-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.116	116	70-130	5	35	mg/kg	07.10.2020 14:05	
Toluene	<0.00200	0.100	0.107	107	0.112	112	70-130	5	35	mg/kg	07.10.2020 14:05	
Ethylbenzene	<0.00200	0.100	0.103	103	0.108	108	71-129	5	35	mg/kg	07.10.2020 14:05	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.218	109	70-135	5	35	mg/kg	07.10.2020 14:05	
o-Xylene	<0.00200	0.100	0.102	102	0.106	106	71-133	4	35	mg/kg	07.10.2020 14:05	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		99		70-130	%	07.10.2020 14:05
4-Bromofluorobenzene	93		100		99		70-130	%	07.10.2020 14:05

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3131399

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW5035A

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.121	121	0.124	124	70-130	2	35	mg/kg	07.10.2020 19:39	
Toluene	<0.00201	0.100	0.126	126	0.113	113	70-130	11	35	mg/kg	07.10.2020 19:39	
Ethylbenzene	<0.00201	0.100	0.120	120	0.101	101	71-129	17	35	mg/kg	07.10.2020 19:39	
m,p-Xylenes	<0.00402	0.201	0.242	120	0.202	101	70-135	18	35	mg/kg	07.10.2020 19:39	
o-Xylene	<0.00201	0.100	0.120	120	0.0989	99	71-133	19	35	mg/kg	07.10.2020 19:39	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	07.10.2020 19:39
4-Bromofluorobenzene	100		101		70-130	%	07.10.2020 19:39

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec





# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334  
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701  
 Atlanta, GA (770) 449-8800

Work Order No: 166759

www.xenco.com Page 1 of 1

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Energy Permian, LLC.	Company Name:	WPX Energy Permian, LLC.
Address:	6315 Buena Vista Dr	Address:	6315 Buena Vista Dr
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(575) 725-1647	Email:	Lynda.Laumbach@wpxenergy.com

Program: <input checked="" type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> Defund State of Project:	
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Logview 12-15	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	06062020	Due Date:	July 17, 2020		
Project Location:	Lynda Laumbach	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:					
PO #:					

Received Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cooler Custody Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Sample Custody Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Containers: <u>3</u>		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Thermometer ID: <u>TN1007</u> Correction Factor: <u>-0.2</u> Temperature Reading: <u>3.7</u> Corrected Temperature: <u>3.5</u>	Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Parameters Chlorides (EPA 300.00) BTEX (Method 8021) TPH (Method 8015)	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont
Swb1	S	7/10/2020	11:20	0-1' Comp		1
Swb2	S	7/10/2020	11:30	0-1.5' Comp		1
Swb3	S	7/10/2020	11:10	1-1.5' Comp		1
Relinquished by: (Signature) _____ Received by: (Signature) _____ Date/Time: 07/10/2020 11:15						

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: WPX Energy Permian Basin, LLC

Date/ Time Received: 07.10.2020 11.15.00 AM

Work Order #: 666859

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 07.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.14.2020



Xenco

# Certificate of Analysis Summary 666862

WPX Energy Permian Basin, LLC, Carlsbad, NM

**Project Name: Longview 12-15**

**Project Id:** 06062020

**Contact:** Lynda Laumbach

**Project Location:**

**Date Received in Lab:** Fri 07.10.2020 11:15

**Report Date:** 07.14.2020 14:12

**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	666862-001	666862-002	666862-003			
	<b>Field Id:</b>	DS01	DS02	DS03			
	<b>Depth:</b>	2- ft	0- ft	0- ft			
	<b>Matrix:</b>	SOIL	SOIL	SOIL			
	<b>Sampled:</b>	07.09.2020 11:40	07.09.2020 11:50	07.09.2020 11:55			
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	07.10.2020 13:00	07.10.2020 13:00	07.10.2020 13:00			
	<b>Analyzed:</b>	07.10.2020 17:52	07.10.2020 18:13	07.10.2020 18:35			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
m,p-Xylenes		<0.00398 0.00398	<0.00404 0.00404	<0.00402 0.00402			
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201			
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	07.10.2020 14:00	07.10.2020 14:00	07.10.2020 14:00			
	<b>Analyzed:</b>	07.10.2020 15:38	07.10.2020 15:44	07.10.2020 16:01			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		2840 49.6	72.4 10.0	215 10.0			
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	07.10.2020 13:20	07.10.2020 13:20	07.10.2020 13:20			
	<b>Analyzed:</b>	07.13.2020 11:28	07.10.2020 16:09	07.10.2020 16:30			
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<50.2 50.2			
Diesel Range Organics (DRO)		54.8 50.1	<50.3 50.3	<50.2 50.2			
Motor Oil Range Hydrocarbons (MRO)		51.1 50.1	<50.3 50.3	<50.2 50.2			
Total TPH		106 50.1	<50.3 50.3	<50.2 50.2			

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

*Jessica Kramer*





Xenco

# Analytical Report 666862

for

## WPX Energy Permian Basin, LLC

**Project Manager: Lynda Laumbach**

**Longview 12-15**

**06062020**

**07.14.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



Xenco

07.14.2020

Project Manager: **Lynda Laumbach****WPX Energy Permian Basin, LLC**

5315 Buena Vista Dr.

Carlsbad, NM 88220

Reference: Eurofins Xenco, LLC Report No(s): **666862****Longview 12-15**

Project Address:

**Lynda Laumbach:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 666862. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 666862 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". The signature is written in a cursive, flowing style.

**Jessica Kramer**

Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 666862****WPX Energy Permian Basin, LLC, Carlsbad, NM**

Longview 12-15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
DS01	S	07.09.2020 11:40	2 ft	666862-001
DS02	S	07.09.2020 11:50	0 ft	666862-002
DS03	S	07.09.2020 11:55	0 ft	666862-003





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## CASE NARRATIVE

*Client Name: WPX Energy Permian Basin, LLC*

*Project Name: Longview 12-15*

Project ID: 06062020

Work Order Number(s): 666862

Report Date: 07.14.2020

Date Received: 07.10.2020

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**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None



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# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666862-001 Date Collected: 07.09.2020 11:40 Sample Depth: 2 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 14:00 Basis: Wet Weight  
 Seq Number: 3131392

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>2840</b>	49.6	mg/kg	07.10.2020 15:38		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 07.10.2020 13:20 Basis: Wet Weight  
 Seq Number: 3131397

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	07.13.2020 11:28	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>54.8</b>	50.1	mg/kg	07.13.2020 11:28		1
<b>Motor Oil Range Hydrocarbons (MRO)</b>	PHCG2835	<b>51.1</b>	50.1	mg/kg	07.13.2020 11:28		1
<b>Total TPH</b>	PHC635	<b>106</b>	50.1	mg/kg	07.13.2020 11:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-135	07.13.2020 11:28	
o-Terphenyl	84-15-1	73	%	70-135	07.13.2020 11:28	



# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS01** Matrix: Soil Date Received: 07.10.2020 11:15  
 Lab Sample Id: 666862-001 Date Collected: 07.09.2020 11:40 Sample Depth: 2 ft  
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 07.10.2020 13:00 Basis: Wet Weight  
 Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.2020 17:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.2020 17:52	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.10.2020 17:52		
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 17:52		



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# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS02**  
 Lab Sample Id: 666862-002

Matrix: Soil  
 Date Collected: 07.09.2020 11:50

Date Received: 07.10.2020 11:15  
 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3131392

Date Prep: 07.10.2020 14:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.4	10.0	mg/kg	07.10.2020 15:44		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3131397

Date Prep: 07.10.2020 13:20

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	07.10.2020 16:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	07.10.2020 16:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	07.10.2020 16:09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	07.10.2020 16:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.10.2020 16:09	
o-Terphenyl	84-15-1	83	%	70-135	07.10.2020 16:09	



# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS02**  
Lab Sample Id: 666862-002

Matrix: Soil  
Date Collected: 07.09.2020 11:50

Date Received: 07.10.2020 11:15  
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.10.2020 18:13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.10.2020 18:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.10.2020 18:13	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.10.2020 18:13	



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# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS03**  
 Lab Sample Id: 666862-003

Matrix: Soil  
 Date Collected: 07.09.2020 11:55

Date Received: 07.10.2020 11:15  
 Sample Depth: 0 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3131392

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 07.10.2020 14:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	215	10.0	mg/kg	07.10.2020 16:01		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3131397

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Date Prep: 07.10.2020 13:20

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.10.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.10.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.10.2020 16:30	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.10.2020 16:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.10.2020 16:30	
o-Terphenyl	84-15-1	80	%	70-135	07.10.2020 16:30	



# Certificate of Analytical Results 666862

## WPX Energy Permian Basin, LLC, Carlsbad, NM

Longview 12-15

Sample Id: **DS03**  
Lab Sample Id: 666862-003

Matrix: Soil  
Date Collected: 07.09.2020 11:55

Date Received: 07.10.2020 11:15  
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.10.2020 13:00

Basis: Wet Weight

Seq Number: 3131399

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.2020 18:35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.2020 18:35	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.10.2020 18:35		
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.10.2020 18:35		



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## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



## WPX Energy Permian Basin, LLC

Longview 12-15

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

MB Sample Id: 7707139-1-BLK

Matrix: Solid

LCS Sample Id: 7707139-1-BKS

Prep Method: E300P

Date Prep: 07.10.2020

LCSD Sample Id: 7707139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	243	97	255	102	90-110	5	20	mg/kg	07.10.2020 13:52	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

Parent Sample Id: 666761-001

Matrix: Soil

MS Sample Id: 666761-001 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666761-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.7	200	226	102	227	102	90-110	0	20	mg/kg	07.10.2020 14:09	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3131392

Parent Sample Id: 666861-002

Matrix: Soil

MS Sample Id: 666861-002 S

Prep Method: E300P

Date Prep: 07.10.2020

MSD Sample Id: 666861-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.7	200	217	102	217	102	90-110	0	20	mg/kg	07.10.2020 15:27	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3131397

MB Sample Id: 7707153-1-BLK

Matrix: Solid

LCS Sample Id: 7707153-1-BKS

Prep Method: SW8015P

Date Prep: 07.10.2020

LCSD Sample Id: 7707153-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1240	124	1230	123	70-135	1	35	mg/kg	07.10.2020 10:43	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1210	121	70-135	1	35	mg/kg	07.10.2020 10:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		111		114		70-135	%	07.10.2020 10:43
o-Terphenyl	83		97		99		70-135	%	07.10.2020 10:43

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3131397

Matrix: Solid

MB Sample Id: 7707153-1-BLK

Prep Method: SW8015P

Date Prep: 07.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.10.2020 10:23	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * | (C - E) / (C + E) |$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec

## WPX Energy Permian Basin, LLC

Longview 12-15

## Analytical Method: TPH By SW8015 Mod

Seq Number: 3131397

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW8015P

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1140	114	1150	115	70-135	1	35	mg/kg	07.10.2020 13:45	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1120	112	70-135	2	35	mg/kg	07.10.2020 13:45	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		98		70-135	%	07.10.2020 13:45
o-Terphenyl	74		83		70-135	%	07.10.2020 13:45

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

MB Sample Id: 7707124-1-BLK

Matrix: Solid

LCS Sample Id: 7707124-1-BKS

Prep Method: SW5035A

Date Prep: 07.10.2020

LCSD Sample Id: 7707124-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.116	116	70-130	5	35	mg/kg	07.10.2020 14:05	
Toluene	<0.00200	0.100	0.107	107	0.112	112	70-130	5	35	mg/kg	07.10.2020 14:05	
Ethylbenzene	<0.00200	0.100	0.103	103	0.108	108	71-129	5	35	mg/kg	07.10.2020 14:05	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.218	109	70-135	5	35	mg/kg	07.10.2020 14:05	
o-Xylene	<0.00200	0.100	0.102	102	0.106	106	71-133	4	35	mg/kg	07.10.2020 14:05	

## Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		99		70-130	%	07.10.2020 14:05
4-Bromofluorobenzene	93		100		99		70-130	%	07.10.2020 14:05

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3131399

Parent Sample Id: 666859-001

Matrix: Soil

MS Sample Id: 666859-001 S

Prep Method: SW5035A

Date Prep: 07.10.2020

MSD Sample Id: 666859-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.121	121	0.124	124	70-130	2	35	mg/kg	07.10.2020 19:39	
Toluene	<0.00201	0.100	0.126	126	0.113	113	70-130	11	35	mg/kg	07.10.2020 19:39	
Ethylbenzene	<0.00201	0.100	0.120	120	0.101	101	71-129	17	35	mg/kg	07.10.2020 19:39	
m,p-Xylenes	<0.00402	0.201	0.242	120	0.202	101	70-135	18	35	mg/kg	07.10.2020 19:39	
o-Xylene	<0.00201	0.100	0.120	120	0.0989	99	71-133	19	35	mg/kg	07.10.2020 19:39	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	07.10.2020 19:39
4-Bromofluorobenzene	100		101		70-130	%	07.10.2020 19:39

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec





Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334  
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3189, Phoenix, AZ (480) 355-0900  
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 589-6701  
Atlanta, GA (770) 449-8800

Work Order No:

2020 8/22  
2020 7/1

Project Manager:	Lynda Laumbach	Bill to: (if different)	Lynda Laumbach
Company Name:	WPX Energy Permian, LLC.	Company Name:	WPX Energy Permian, LLC.
Address:	5315 Buena Vista Dr	Address:	5315 Buena Vista Dr
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(575) 725-1647	Email:	Lynda.Laumbach@wpxenenergy.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Rowfields <input type="checkbox"/> RC <input type="checkbox"/> \$ per fund
State of Project:	
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Longhorn 12-15	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	06062020	Due Date:	7/16/2020		
Project Location:		TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Lynda Laumbach				
PO #:					
SAMPLE RECEIPT					
Received Inact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	TMM007		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Total Containers:	3	Temperature Reading:	3.7		
		Corrected Temperature:	3.5		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Chloride	BTEX	TPH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		07/10/2020 11:15			