



Crystal Weaver
Environmental Specialist
NMOCD Artesia - District II

April 4, 2017

Re: North Brushy Draw Federal 35-06H workplan for the characterization of impacts – Case # 2RP 4634

Dear Ms. Weaver,

The purpose of this letter is to propose a workplan for the characterization of impacts associated with the North Brushy Draw Federal 35-06 spill which occurred on February 7, 2018. See attached C-141 for details.

Immediately after the spill discovery, the impacted area was mapped with a Trimble to delineate the horizontal extent of the impacts. As soon as the line locating services were completed, the affected area on the pad was scraped off to prevent from vertical migration of the spilled fluids. After this initial response, 40 baseline samples were collected from five sampling locations to determine if any additional remedial activities are needed. Although the map depicts a large impacted area, the vast majority of the impacts were limited to a very light misting on the vegetation. Therefore, the samples were collected where the impacts to soil and vegetation were clearly visible; the majority of the impacts were located adjacent to the treater. The results are summarized in the attached table along with the raw laboratory report and the map.

Based on the information obtained from the NMOSE web site, there are two surface water features located less than 1000' north and south of the pad, defined by OSE as "intermittent". Based on the OSE ground water data, the Trend Map and the site elevation, depth do groundwater is more than 100'. There are no private domestic water sources within 1000' of the site. Therefore, the ranking for this site is 0.

With BLM's approval, WPX would like to excavate up to top 1' of the area where the soil samples were collected. When the excavation activities are completed, confirmation samples will be collected from the entire impacted area and analyzed for TPHs, BTEX and Chlorides in order to determine if any additional remedial actions are required. WPX will submit the sampling results to OCD and BLM prior to backfilling and revegetation activities.

Please do not hesitate to call me if you have any questions.

Sincerely,

Karolina Blaney
WPX Energy
Environmental Specialist
(970) 589-0743
karolina.blaney@wpxenergy.com

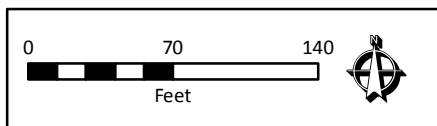
Table 1. North Brushy Federal 35-6, Case # 2RP 4634

Date	Sample Point	Depth	DRO mg/kg	ORO mg/kg	GRO mg/kg	Benzene mg/kg	Ethylbenzene mg/kg	Toluene mg/kg	Xylenes mg/kg	Chlorides mg/kg
2/19/2018	S1	0	4400	1700	220	ND	1.4	2.7	48	8,300
2/19/2018	S1	3"	1400	560	390	ND	2.2	3.8	59	1800
2/19/2018	S1	6"	1600	600	1100	ND	2.1	3.1	50	1700
2/19/2018	S1	9"	1000	350	250	ND	1.4	32	40	2200
2/19/2018	S1	1'	330	140	100	ND	ND	ND	0.72	130
2/19/2018	S1	2'	ND	37	29	ND	ND	ND	ND	59
2/19/2018	S1	3'	ND	7.7	15	ND	ND	ND	ND	ND
2/19/2018	S1	4'	ND	8.4	ND	ND	ND	ND	ND	ND
2/19/2018	S2	0	4100	1200	330	ND	0.42	0.6	9	150
2/19/2018	S2	3"	9800	3500	370	ND	0.56	0.84	11	550
2/19/2018	S2	6"	4700	1600	340	ND	0.92	1.6	18	830
2/19/2018	S2	9"	4300	1500	220	ND	0.56	9	12	430
2/19/2018	S2	1'	83	97	26	ND	ND	ND	0.87	87
2/19/2018	S2	2'	14	42	ND	ND	ND	ND	ND	24
2/19/2018	S2	3'	ND	ND	ND	ND	ND	ND	ND	ND
2/19/2018	S2	4'	ND	ND	ND	ND	ND	ND	ND	ND
2/19/2018	S3	0	7900	2900	20	ND	0.066	0.09	1.3	150
2/19/2018	S3	3"	5500	2200	200	ND	0.25	0.24	5.8	560
2/19/2018	S3	6"	1700	600	37	ND	0.045	0.051	0.86	360
2/19/2018	S3	9"	2200	730	86	ND	0.1	0.093	2.2	54
2/19/2018	S3	1'	610	260	ND	ND	ND	0.047	0.32	57
2/19/2018	S3	2'	130	83	ND	ND	ND	ND	ND	ND
2/19/2018	S3	3'	1200	520	21	ND	ND	ND	0.62	170
2/19/2018	S3	4'	1100	400	38	ND	ND	ND	0.61	360
2/19/2018	S4	0	14000	5500	55	ND	0.21	0.26	4.2	870
2/19/2018	S4	3"	5400	1900	88	ND	0.2	0.15	4.7	1300
2/19/2018	S4	6"	2300	900	78	ND	0.042	ND	0.97	750
2/19/2018	S4	9"	2900	1200	18	ND	ND	ND	0.51	620
2/19/2018	S4	1'	2900	1200	36	ND	ND	ND	0.51	390
2/19/2018	S4	2'	160	130	ND	ND	ND	ND	ND	33
2/19/2018	S4	3'	1300	580	ND	ND	ND	ND	0.17	200
2/19/2018	S4	4'	2800	1300	ND	ND	ND	ND	ND	230
2/19/2018	S5	0	16000	6400	66	ND	0.25	0.33	5.1	2000
2/19/2018	S5	3"	860	290	67	ND	0.14	0.11	3.3	1200
2/19/2018	S5	6"	1200	440	22	ND	0.056	0.034	1.3	950
2/19/2018	S5	9"	810	340	81	ND	0.16	0.11	3.5	1300
2/19/2018	S5	1'	370	170	10	ND	ND	ND	0.38	300
2/19/2018	S5	2'	13	24	ND	ND	ND	ND	ND	36
2/19/2018	S5	3'	130	65	ND	ND	ND	ND	ND	54
2/19/2018	S5	4'	100	48	ND	ND	ND	ND	ND	100




 North Brushy Fed 35-6
 NMOC # 2RP-4634
 Permian Basin
 Date: 4/4/2018
 Map Scale (at 8.5" x 11"): 1:1,113
 Created By: Sarah Harrison
 Geospatial Data Tech II
 3800 One Williams Center
 Tulsa, OK 74172

Projection: NAD 1983 StatePlane Texas Central FIPS 4203 Feet



Map Symbolology

 Area of Interest
 Point of Interest





08-Mar-2018

James Raley
WPX Energy
5315 Buena Vista Dr.
Carlsbad, NM 88220

Re: **North Brushy Draw 35-6H**

Work Order: **18021528**

Dear James,

ALS Environmental received 32 samples on 27-Feb-2018 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 54.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 998501

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy
Project: North Brushy Draw 35-6H
Work Order: 18021528

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
18021528-01	S2 (0 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-02	S2 (3 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-03	S2 (6 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-04	S2 (9 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-05	S2 (1 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-06	S2 (2 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-07	S2 (3 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-08	S2 (4 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-09	S3 (0 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-10	S3 (3 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-11	S3 (6 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-12	S3 (9 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-13	S3 (1 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-14	S3 (2 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-15	S3 (3 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-16	S3 (4 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-17	S4 (0 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-18	S4 (3 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-19	S4 (6 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-20	S4 (9 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-21	S4 (1 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-22	S4 (2 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-23	S4 (3 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-24	S4 (4 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-25	S5 (0 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-26	S5 (3 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-27	S5 (6 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-28	S5 (9 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-29	S5 (1 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-30	S5 (2 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-31	S5 (3 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021528-32	S5 (4 ft)	Soil		2/19/2018	2/27/2018 09:30	☐

Client: WPX Energy
Project: North Brushy Draw 35-6H
Work Order: 18021528

Case Narrative

Batch 114818, Method CL_4500E_DISC_S, Sample 18021528-01AMSD: The RPD between the MS and MSD was outside the control limit for Chloride. The corresponding result in the parent sample should be considered estimated.

Batch 114922, Method CL_4500E_DISC_S, Sample 18021528-21A MS/MSD: The MS/MSD recovery was below the lower control limit for Chloride. The corresponding result in the parent sample may be biased low.

Batch 114820, Method VOC_8260_S, Sample 18021528-20A MS/MSD: The MS/MSD recoveries were above the upper control limits for m/p-Xylene, o-Xylene, and Total Xylenes. The corresponding results in the parent sample may be biased high.

Batch 114852, Method DRLVI_8015_S, Samples 18021528-02A and -09A: DRO surrogate recoveries high due to matrix interference.

Batch 114871, Method DRLVI_8015_S, Sample 18021528-25A: DRO surrogate recovery high due to matrix interference.

Batch 114871, Method DRLVI_8015_S, Sample 18021528-20A MS/MSD: The MS/MSD recovery was outside of the control limit for DRO; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required.

Batch 114871, Method DRLVI_8015_S, Sample 18021528-20A MS: The MS recovery was outside of the control limit for ORO; however, the MSD recovery and the RPD between the MS and MSD were within control limits. No qualification is required.

Batch 114948, Method DRLVI_8015_S, Sample 18021528-26A MS/MSD: The MS/MSD recovery was below the lower control limit for ORO. The corresponding result in the parent sample may be biased low.

Client: WPX Energy
Project: North Brushy Draw 35-6H
WorkOrder: 18021528

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (0 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	4,100		53	mg/Kg-dry	10	3/2/2018 03:05 AM
ORO (C28-C40)	1,200		5.3	mg/Kg-dry	1	3/1/2018 01:44 AM
Surr: 4-Terphenyl-d14	95.1		34-130	%REC	10	3/2/2018 03:05 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	330		6.2	mg/Kg-dry	1	3/3/2018 05:30 PM
Surr: Toluene-d8	85.1		71-123	%REC	1	3/3/2018 05:30 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.037	mg/Kg-dry	1	3/1/2018 07:16 PM
Ethylbenzene	0.42		0.037	mg/Kg-dry	1	3/1/2018 07:16 PM
m,p-Xylene	6.9		0.075	mg/Kg-dry	1	3/1/2018 07:16 PM
o-Xylene	2.1		0.037	mg/Kg-dry	1	3/1/2018 07:16 PM
Toluene	0.60		0.037	mg/Kg-dry	1	3/1/2018 07:16 PM
Xylenes, Total	9.0		0.11	mg/Kg-dry	1	3/1/2018 07:16 PM
Surr: 1,2-Dichloroethane-d4	90.6		70-130	%REC	1	3/1/2018 07:16 PM
Surr: 4-Bromofluorobenzene	125		70-130	%REC	1	3/1/2018 07:16 PM
Surr: Dibromofluoromethane	97.9		70-130	%REC	1	3/1/2018 07:16 PM
Surr: Toluene-d8	108		70-130	%REC	1	3/1/2018 07:16 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	150		11	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	11		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (3 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	9,800		60	mg/Kg-dry	10	3/2/2018 04:03 AM
ORO (C28-C40)	3,500		60	mg/Kg-dry	10	3/2/2018 04:03 AM
Surr: 4-Terphenyl-d14	135	S	34-130	%REC	10	3/2/2018 04:03 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	370		7.5	mg/Kg-dry	1	3/4/2018 02:15 AM
Surr: Toluene-d8	84.5		71-123	%REC	1	3/4/2018 02:15 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.045	mg/Kg-dry	1	3/1/2018 07:41 PM
Ethylbenzene	0.56		0.045	mg/Kg-dry	1	3/1/2018 07:41 PM
m,p-Xylene	8.8		0.090	mg/Kg-dry	1	3/1/2018 07:41 PM
o-Xylene	2.6		0.045	mg/Kg-dry	1	3/1/2018 07:41 PM
Toluene	0.84		0.045	mg/Kg-dry	1	3/1/2018 07:41 PM
Xylenes, Total	11		0.14	mg/Kg-dry	1	3/1/2018 07:41 PM
Surr: 1,2-Dichloroethane-d4	89.7		70-130	%REC	1	3/1/2018 07:41 PM
Surr: 4-Bromofluorobenzene	118		70-130	%REC	1	3/1/2018 07:41 PM
Surr: Dibromofluoromethane	94.7		70-130	%REC	1	3/1/2018 07:41 PM
Surr: Toluene-d8	107		70-130	%REC	1	3/1/2018 07:41 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	550		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	20		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (6 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	4,700		59	mg/Kg-dry	10	3/2/2018 04:32 AM
ORO (C28-C40)	1,600		5.9	mg/Kg-dry	1	3/1/2018 02:42 AM
Surr: 4-Terphenyl-d14	98.1		34-130	%REC	1	3/1/2018 02:42 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	340		7.3	mg/Kg-dry	1	3/4/2018 02:44 AM
Surr: Toluene-d8	83.0		71-123	%REC	1	3/4/2018 02:44 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.044	mg/Kg-dry	1	3/1/2018 08:06 PM
Ethylbenzene	0.92		0.044	mg/Kg-dry	1	3/1/2018 08:06 PM
m,p-Xylene	14		0.088	mg/Kg-dry	1	3/1/2018 08:06 PM
o-Xylene	4.1		0.044	mg/Kg-dry	1	3/1/2018 08:06 PM
Toluene	1.6		0.044	mg/Kg-dry	1	3/1/2018 08:06 PM
Xylenes, Total	18		0.13	mg/Kg-dry	1	3/1/2018 08:06 PM
Surr: 1,2-Dichloroethane-d4	85.4		70-130	%REC	1	3/1/2018 08:06 PM
Surr: 4-Bromofluorobenzene	118		70-130	%REC	1	3/1/2018 08:06 PM
Surr: Dibromofluoromethane	91.6		70-130	%REC	1	3/1/2018 08:06 PM
Surr: Toluene-d8	115		70-130	%REC	1	3/1/2018 08:06 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	830		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	19		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (9 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	4,300		63	mg/Kg-dry	10	3/2/2018 05:01 AM
ORO (C28-C40)	1,500		6.3	mg/Kg-dry	1	3/1/2018 03:12 AM
Surr: 4-Terphenyl-d14	98.1		34-130	%REC	1	3/1/2018 03:12 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	220		7.7	mg/Kg-dry	1	3/4/2018 03:13 AM
Surr: Toluene-d8	88.2		71-123	%REC	1	3/4/2018 03:13 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.046	mg/Kg-dry	1	3/1/2018 08:31 PM
Ethylbenzene	0.56		0.046	mg/Kg-dry	1	3/1/2018 08:31 PM
m,p-Xylene	9.0		0.092	mg/Kg-dry	1	3/1/2018 08:31 PM
o-Xylene	2.8		0.046	mg/Kg-dry	1	3/1/2018 08:31 PM
Toluene	0.74		0.046	mg/Kg-dry	1	3/1/2018 08:31 PM
Xylenes, Total	12		0.14	mg/Kg-dry	1	3/1/2018 08:31 PM
Surr: 1,2-Dichloroethane-d4	88.9		70-130	%REC	1	3/1/2018 08:31 PM
Surr: 4-Bromofluorobenzene	112		70-130	%REC	1	3/1/2018 08:31 PM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	3/1/2018 08:31 PM
Surr: Toluene-d8	106		70-130	%REC	1	3/1/2018 08:31 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	430		13	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	21		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (1 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	83		5.8	mg/Kg-dry	1	3/1/2018 03:41 AM
ORO (C28-C40)	97		5.8	mg/Kg-dry	1	3/1/2018 03:41 AM
Surr: 4-Terphenyl-d14	72.6		34-130	%REC	1	3/1/2018 03:41 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	26		6.9	mg/Kg-dry	1	3/4/2018 03:42 AM
Surr: Toluene-d8	91.1		71-123	%REC	1	3/4/2018 03:42 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.041	mg/Kg-dry	1	3/1/2018 08:57 PM
Ethylbenzene	ND		0.041	mg/Kg-dry	1	3/1/2018 08:57 PM
m,p-Xylene	0.64		0.083	mg/Kg-dry	1	3/1/2018 08:57 PM
o-Xylene	0.23		0.041	mg/Kg-dry	1	3/1/2018 08:57 PM
Toluene	ND		0.041	mg/Kg-dry	1	3/1/2018 08:57 PM
Xylenes, Total	0.87		0.12	mg/Kg-dry	1	3/1/2018 08:57 PM
Surr: 1,2-Dichloroethane-d4	88.4		70-130	%REC	1	3/1/2018 08:57 PM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	3/1/2018 08:57 PM
Surr: Dibromofluoromethane	94.3		70-130	%REC	1	3/1/2018 08:57 PM
Surr: Toluene-d8	96.4		70-130	%REC	1	3/1/2018 08:57 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	87		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	16		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (2 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	14		6.5	mg/Kg-dry	1	3/1/2018 04:10 AM
ORO (C28-C40)	42		6.5	mg/Kg-dry	1	3/1/2018 04:10 AM
Surr: 4-Terphenyl-d14	77.6		34-130	%REC	1	3/1/2018 04:10 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	ND		8.2	mg/Kg-dry	1	3/4/2018 04:11 AM
Surr: Toluene-d8	98.7		71-123	%REC	1	3/4/2018 04:11 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.049	mg/Kg-dry	1	3/1/2018 09:22 PM
Ethylbenzene	ND		0.049	mg/Kg-dry	1	3/1/2018 09:22 PM
m,p-Xylene	ND		0.098	mg/Kg-dry	1	3/1/2018 09:22 PM
o-Xylene	ND		0.049	mg/Kg-dry	1	3/1/2018 09:22 PM
Toluene	ND		0.049	mg/Kg-dry	1	3/1/2018 09:22 PM
Xylenes, Total	ND		0.15	mg/Kg-dry	1	3/1/2018 09:22 PM
Surr: 1,2-Dichloroethane-d4	90.8		70-130	%REC	1	3/1/2018 09:22 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/1/2018 09:22 PM
Surr: Dibromofluoromethane	97.0		70-130	%REC	1	3/1/2018 09:22 PM
Surr: Toluene-d8	96.9		70-130	%REC	1	3/1/2018 09:22 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	ND		13	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	24		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S2 (3 ft)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-07

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	ND		6.4	mg/Kg-dry	1	3/1/2018 05:08 AM
ORO (C28-C40)	ND		6.4	mg/Kg-dry	1	3/1/2018 05:08 AM
Surr: 4-Terphenyl-d14	73.6		34-130	%REC	1	3/1/2018 05:08 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	ND		7.8	mg/Kg-dry	1	3/4/2018 04:40 AM
Surr: Toluene-d8	100		71-123	%REC	1	3/4/2018 04:40 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:47 PM
Ethylbenzene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:47 PM
m,p-Xylene	ND		0.094	mg/Kg-dry	1	3/1/2018 09:47 PM
o-Xylene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:47 PM
Toluene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:47 PM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	3/1/2018 09:47 PM
Surr: 1,2-Dichloroethane-d4	89.1		70-130	%REC	1	3/1/2018 09:47 PM
Surr: 4-Bromofluorobenzene	99.6		70-130	%REC	1	3/1/2018 09:47 PM
Surr: Dibromofluoromethane	93.0		70-130	%REC	1	3/1/2018 09:47 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	3/1/2018 09:47 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	ND		13	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	22		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S2 (4 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	ND		6.0	mg/Kg-dry	1	3/1/2018 05:37 AM
ORO (C28-C40)	ND		6.0	mg/Kg-dry	1	3/1/2018 05:37 AM
Surr: 4-Terphenyl-d14	67.6		34-130	%REC	1	3/1/2018 05:37 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	ND		7.7	mg/Kg-dry	1	3/4/2018 05:09 AM
Surr: Toluene-d8	99.6		71-123	%REC	1	3/4/2018 05:09 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.046	mg/Kg-dry	1	3/1/2018 08:14 PM
Ethylbenzene	ND		0.046	mg/Kg-dry	1	3/1/2018 08:14 PM
m,p-Xylene	ND		0.092	mg/Kg-dry	1	3/1/2018 08:14 PM
o-Xylene	ND		0.046	mg/Kg-dry	1	3/1/2018 08:14 PM
Toluene	ND		0.046	mg/Kg-dry	1	3/1/2018 08:14 PM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	3/1/2018 08:14 PM
Surr: 1,2-Dichloroethane-d4	94.8		70-130	%REC	1	3/1/2018 08:14 PM
Surr: 4-Bromofluorobenzene	99.8		70-130	%REC	1	3/1/2018 08:14 PM
Surr: Dibromofluoromethane	88.8		70-130	%REC	1	3/1/2018 08:14 PM
Surr: Toluene-d8	103		70-130	%REC	1	3/1/2018 08:14 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	ND		13	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	21		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S3 (0 ft)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-09

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	7,900		60	mg/Kg-dry	10	3/2/2018 05:30 AM
ORO (C28-C40)	2,900		60	mg/Kg-dry	10	3/2/2018 05:30 AM
Surr: 4-Terphenyl-d14	140	S	34-130	%REC	10	3/2/2018 05:30 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	20		7.3	mg/Kg-dry	1	3/4/2018 05:39 AM
Surr: Toluene-d8	91.0		71-123	%REC	1	3/4/2018 05:39 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.044	mg/Kg-dry	1	3/1/2018 08:29 PM
Ethylbenzene	0.066		0.044	mg/Kg-dry	1	3/1/2018 08:29 PM
m,p-Xylene	1.0		0.088	mg/Kg-dry	1	3/1/2018 08:29 PM
o-Xylene	0.30		0.044	mg/Kg-dry	1	3/1/2018 08:29 PM
Toluene	0.090		0.044	mg/Kg-dry	1	3/1/2018 08:29 PM
Xylenes, Total	1.3		0.13	mg/Kg-dry	1	3/1/2018 08:29 PM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	3/1/2018 08:29 PM
Surr: 4-Bromofluorobenzene	97.6		70-130	%REC	1	3/1/2018 08:29 PM
Surr: Dibromofluoromethane	89.5		70-130	%REC	1	3/1/2018 08:29 PM
Surr: Toluene-d8	103		70-130	%REC	1	3/1/2018 08:29 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	150		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	19		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S3 (3 in)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-10

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 2/28/18 14:26	Analyst: MEB
DRO (C10-C28)	5,500		61	mg/Kg-dry	10	3/2/2018 05:58 AM
ORO (C28-C40)	2,200		61	mg/Kg-dry	10	3/2/2018 05:58 AM
Surr: 4-Terphenyl-d14	105		34-130	%REC	10	3/2/2018 05:58 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	200		7.3	mg/Kg-dry	1	3/4/2018 06:08 AM
Surr: Toluene-d8	88.6		71-123	%REC	1	3/4/2018 06:08 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.044	mg/Kg-dry	1	3/1/2018 08:45 PM
Ethylbenzene	0.25		0.044	mg/Kg-dry	1	3/1/2018 08:45 PM
m,p-Xylene	4.3		0.088	mg/Kg-dry	1	3/1/2018 08:45 PM
o-Xylene	1.5		0.044	mg/Kg-dry	1	3/1/2018 08:45 PM
Toluene	0.24		0.044	mg/Kg-dry	1	3/1/2018 08:45 PM
Xylenes, Total	5.8		0.13	mg/Kg-dry	1	3/1/2018 08:45 PM
Surr: 1,2-Dichloroethane-d4	95.0		70-130	%REC	1	3/1/2018 08:45 PM
Surr: 4-Bromofluorobenzene	118		70-130	%REC	1	3/1/2018 08:45 PM
Surr: Dibromofluoromethane	88.0		70-130	%REC	1	3/1/2018 08:45 PM
Surr: Toluene-d8	106		70-130	%REC	1	3/1/2018 08:45 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	560		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	19		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S3 (6 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-11
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	1,700		6.0	mg/Kg-dry	1	3/2/2018 11:45 AM
ORO (C28-C40)	600		6.0	mg/Kg-dry	1	3/2/2018 11:45 AM
Surr: 4-Terphenyl-d14	57.6		34-130	%REC	1	3/2/2018 11:45 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	37		7.3	mg/Kg-dry	1	3/4/2018 06:37 AM
Surr: Toluene-d8	98.0		71-123	%REC	1	3/4/2018 06:37 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.044	mg/Kg-dry	1	3/1/2018 09:00 PM
Ethylbenzene	0.045		0.044	mg/Kg-dry	1	3/1/2018 09:00 PM
m,p-Xylene	0.63		0.088	mg/Kg-dry	1	3/1/2018 09:00 PM
o-Xylene	0.23		0.044	mg/Kg-dry	1	3/1/2018 09:00 PM
Toluene	0.051		0.044	mg/Kg-dry	1	3/1/2018 09:00 PM
Xylenes, Total	0.86		0.13	mg/Kg-dry	1	3/1/2018 09:00 PM
Surr: 1,2-Dichloroethane-d4	97.4		70-130	%REC	1	3/1/2018 09:00 PM
Surr: 4-Bromofluorobenzene	98.8		70-130	%REC	1	3/1/2018 09:00 PM
Surr: Dibromofluoromethane	88.0		70-130	%REC	1	3/1/2018 09:00 PM
Surr: Toluene-d8	99.8		70-130	%REC	1	3/1/2018 09:00 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	360		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	19		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S3 (9 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-12
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	2,200		61	mg/Kg-dry	10	3/2/2018 11:18 PM
ORO (C28-C40)	730		6.1	mg/Kg-dry	1	3/2/2018 12:14 PM
Surr: 4-Terphenyl-d14	80.1		34-130	%REC	10	3/2/2018 11:18 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	86		7.5	mg/Kg-dry	1	3/4/2018 08:04 AM
Surr: Toluene-d8	97.5		71-123	%REC	1	3/4/2018 08:04 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.045	mg/Kg-dry	1	3/1/2018 09:16 PM
Ethylbenzene	0.10		0.045	mg/Kg-dry	1	3/1/2018 09:16 PM
m,p-Xylene	1.6		0.090	mg/Kg-dry	1	3/1/2018 09:16 PM
o-Xylene	0.58		0.045	mg/Kg-dry	1	3/1/2018 09:16 PM
Toluene	0.093		0.045	mg/Kg-dry	1	3/1/2018 09:16 PM
Xylenes, Total	2.2		0.14	mg/Kg-dry	1	3/1/2018 09:16 PM
Surr: 1,2-Dichloroethane-d4	96.7		70-130	%REC	1	3/1/2018 09:16 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/1/2018 09:16 PM
Surr: Dibromofluoromethane	87.4		70-130	%REC	1	3/1/2018 09:16 PM
Surr: Toluene-d8	102		70-130	%REC	1	3/1/2018 09:16 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	54		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	20		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S3 (1 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-13
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	610		6.3	mg/Kg-dry	1	3/2/2018 12:43 PM
ORO (C28-C40)	260		6.3	mg/Kg-dry	1	3/2/2018 12:43 PM
Surr: 4-Terphenyl-d14	86.1		34-130	%REC	1	3/2/2018 12:43 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	ND		7.7	mg/Kg-dry	1	3/4/2018 08:34 AM
Surr: Toluene-d8	98.9		71-123	%REC	1	3/4/2018 08:34 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.046	mg/Kg-dry	1	3/1/2018 09:31 PM
Ethylbenzene	ND		0.046	mg/Kg-dry	1	3/1/2018 09:31 PM
m,p-Xylene	0.23		0.092	mg/Kg-dry	1	3/1/2018 09:31 PM
o-Xylene	0.086		0.046	mg/Kg-dry	1	3/1/2018 09:31 PM
Toluene	0.047		0.046	mg/Kg-dry	1	3/1/2018 09:31 PM
Xylenes, Total	0.32		0.14	mg/Kg-dry	1	3/1/2018 09:31 PM
Surr: 1,2-Dichloroethane-d4	92.4		70-130	%REC	1	3/1/2018 09:31 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/1/2018 09:31 PM
Surr: Dibromofluoromethane	88.3		70-130	%REC	1	3/1/2018 09:31 PM
Surr: Toluene-d8	101		70-130	%REC	1	3/1/2018 09:31 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	57		12	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	21		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S3 (2 ft)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-14

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	130		6.2	mg/Kg-dry	1	3/2/2018 01:12 PM
ORO (C28-C40)	83		6.2	mg/Kg-dry	1	3/2/2018 01:12 PM
Surr: 4-Terphenyl-d14	98.6		34-130	%REC	1	3/2/2018 01:12 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	ND		7.8	mg/Kg-dry	1	3/4/2018 09:03 AM
Surr: Toluene-d8	97.5		71-123	%REC	1	3/4/2018 09:03 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:46 PM
Ethylbenzene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:46 PM
m,p-Xylene	ND		0.094	mg/Kg-dry	1	3/1/2018 09:46 PM
o-Xylene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:46 PM
Toluene	ND		0.047	mg/Kg-dry	1	3/1/2018 09:46 PM
Xylenes, Total	ND		0.14	mg/Kg-dry	1	3/1/2018 09:46 PM
Surr: 1,2-Dichloroethane-d4	98.2		70-130	%REC	1	3/1/2018 09:46 PM
Surr: 4-Bromofluorobenzene	97.0		70-130	%REC	1	3/1/2018 09:46 PM
Surr: Dibromofluoromethane	92.4		70-130	%REC	1	3/1/2018 09:46 PM
Surr: Toluene-d8	98.8		70-130	%REC	1	3/1/2018 09:46 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	ND		13	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	22		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S3 (3 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-15
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	1,200		5.2	mg/Kg-dry	1	3/2/2018 01:41 PM
ORO (C28-C40)	520		5.2	mg/Kg-dry	1	3/2/2018 01:41 PM
Surr: 4-Terphenyl-d14	99.1		34-130	%REC	1	3/2/2018 01:41 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	21		5.5	mg/Kg-dry	1	3/4/2018 09:32 AM
Surr: Toluene-d8	97.8		71-123	%REC	1	3/4/2018 09:32 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:02 PM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:02 PM
m,p-Xylene	0.46		0.066	mg/Kg-dry	1	3/1/2018 10:02 PM
o-Xylene	0.16		0.033	mg/Kg-dry	1	3/1/2018 10:02 PM
Toluene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:02 PM
Xylenes, Total	0.62		0.10	mg/Kg-dry	1	3/1/2018 10:02 PM
Surr: 1,2-Dichloroethane-d4	94.4		70-130	%REC	1	3/1/2018 10:02 PM
Surr: 4-Bromofluorobenzene	98.3		70-130	%REC	1	3/1/2018 10:02 PM
Surr: Dibromofluoromethane	84.2		70-130	%REC	1	3/1/2018 10:02 PM
Surr: Toluene-d8	100		70-130	%REC	1	3/1/2018 10:02 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	170		21	mg/Kg-dry	2	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.1		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S3 (4 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-16
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	1,100		5.2	mg/Kg-dry	1	3/6/2018 11:20 PM
ORO (C28-C40)	400		5.2	mg/Kg-dry	1	3/6/2018 11:20 PM
Surr: 4-Terphenyl-d14	83.6		34-130	%REC	1	3/6/2018 11:20 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	38		5.4	mg/Kg-dry	1	3/4/2018 10:01 AM
Surr: Toluene-d8	101		71-123	%REC	1	3/4/2018 10:01 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:17 PM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:17 PM
m,p-Xylene	0.45		0.065	mg/Kg-dry	1	3/1/2018 10:17 PM
o-Xylene	0.16		0.033	mg/Kg-dry	1	3/1/2018 10:17 PM
Toluene	ND		0.033	mg/Kg-dry	1	3/1/2018 10:17 PM
Xylenes, Total	0.61		0.098	mg/Kg-dry	1	3/1/2018 10:17 PM
Surr: 1,2-Dichloroethane-d4	94.2		70-130	%REC	1	3/1/2018 10:17 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/1/2018 10:17 PM
Surr: Dibromofluoromethane	86.4		70-130	%REC	1	3/1/2018 10:17 PM
Surr: Toluene-d8	102		70-130	%REC	1	3/1/2018 10:17 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	360		10	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.3		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (0 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-17
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	14,000		100	mg/Kg-dry	20	3/7/2018 02:24 PM
ORO (C28-C40)	5,500		100	mg/Kg-dry	20	3/7/2018 02:24 PM
Surr: 4-Terphenyl-d14	110		34-130	%REC	20	3/7/2018 02:24 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	55		5.3	mg/Kg-dry	1	3/4/2018 10:30 AM
Surr: Toluene-d8	90.5		71-123	%REC	1	3/4/2018 10:30 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.032	mg/Kg-dry	1	3/1/2018 10:32 PM
Ethylbenzene	0.21		0.032	mg/Kg-dry	1	3/1/2018 10:32 PM
m,p-Xylene	3.3		0.063	mg/Kg-dry	1	3/1/2018 10:32 PM
o-Xylene	0.97		0.032	mg/Kg-dry	1	3/1/2018 10:32 PM
Toluene	0.26		0.032	mg/Kg-dry	1	3/1/2018 10:32 PM
Xylenes, Total	4.2		0.095	mg/Kg-dry	1	3/1/2018 10:32 PM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	1	3/1/2018 10:32 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	3/1/2018 10:32 PM
Surr: Dibromofluoromethane	85.0		70-130	%REC	1	3/1/2018 10:32 PM
Surr: Toluene-d8	103		70-130	%REC	1	3/1/2018 10:32 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	870		10	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	2.8		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (3 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-18
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	5,400		51	mg/Kg-dry	10	3/7/2018 02:53 PM
ORO (C28-C40)	1,900		51	mg/Kg-dry	10	3/7/2018 02:53 PM
Surr: 4-Terphenyl-d14	55.1		34-130	%REC	10	3/7/2018 02:53 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	88		5.4	mg/Kg-dry	1	3/4/2018 11:00 AM
Surr: Toluene-d8	89.9		71-123	%REC	1	3/4/2018 11:00 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.032	mg/Kg-dry	1	3/1/2018 10:48 PM
Ethylbenzene	0.20		0.032	mg/Kg-dry	1	3/1/2018 10:48 PM
m,p-Xylene	3.5		0.065	mg/Kg-dry	1	3/1/2018 10:48 PM
o-Xylene	1.2		0.032	mg/Kg-dry	1	3/1/2018 10:48 PM
Toluene	0.15		0.032	mg/Kg-dry	1	3/1/2018 10:48 PM
Xylenes, Total	4.7		0.098	mg/Kg-dry	1	3/1/2018 10:48 PM
Surr: 1,2-Dichloroethane-d4	93.6		70-130	%REC	1	3/1/2018 10:48 PM
Surr: 4-Bromofluorobenzene	107		70-130	%REC	1	3/1/2018 10:48 PM
Surr: Dibromofluoromethane	81.9		70-130	%REC	1	3/1/2018 10:48 PM
Surr: Toluene-d8	101		70-130	%REC	1	3/1/2018 10:48 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	1,300		42	mg/Kg-dry	4	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.0		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (6 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-19
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	2,300		50	mg/Kg-dry	10	3/7/2018 03:22 PM
ORO (C28-C40)	900		5.0	mg/Kg-dry	1	3/7/2018 12:47 PM
Surr: 4-Terphenyl-d14	70.1		34-130	%REC	1	3/7/2018 12:47 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	78		5.4	mg/Kg-dry	1	3/4/2018 11:29 AM
Surr: Toluene-d8	104		71-123	%REC	1	3/4/2018 11:29 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.032	mg/Kg-dry	1	3/1/2018 11:03 PM
Ethylbenzene	0.042		0.032	mg/Kg-dry	1	3/1/2018 11:03 PM
m,p-Xylene	0.70		0.064	mg/Kg-dry	1	3/1/2018 11:03 PM
o-Xylene	0.27		0.032	mg/Kg-dry	1	3/1/2018 11:03 PM
Toluene	ND		0.032	mg/Kg-dry	1	3/1/2018 11:03 PM
Xylenes, Total	0.97		0.097	mg/Kg-dry	1	3/1/2018 11:03 PM
Surr: 1,2-Dichloroethane-d4	94.4		70-130	%REC	1	3/1/2018 11:03 PM
Surr: 4-Bromofluorobenzene	98.1		70-130	%REC	1	3/1/2018 11:03 PM
Surr: Dibromofluoromethane	85.0		70-130	%REC	1	3/1/2018 11:03 PM
Surr: Toluene-d8	101		70-130	%REC	1	3/1/2018 11:03 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	750		10	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.6		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (9 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-20
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	2,900		51	mg/Kg-dry	10	3/3/2018 12:16 PM
ORO (C28-C40)	1,200		51	mg/Kg-dry	10	3/3/2018 12:16 PM
Surr: 4-Terphenyl-d14	105		34-130	%REC	10	3/3/2018 12:16 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 18:48	Analyst: MEB
GRO (C6-C10)	18		5.4	mg/Kg-dry	1	3/4/2018 02:30 PM
Surr: Toluene-d8	97.8		71-123	%REC	1	3/4/2018 02:30 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 18:50	Analyst: EMR
Benzene	ND		0.032	mg/Kg-dry	1	3/1/2018 07:59 PM
Ethylbenzene	ND		0.032	mg/Kg-dry	1	3/1/2018 07:59 PM
m,p-Xylene	0.37		0.064	mg/Kg-dry	1	3/1/2018 07:59 PM
o-Xylene	0.14		0.032	mg/Kg-dry	1	3/1/2018 07:59 PM
Toluene	ND		0.032	mg/Kg-dry	1	3/1/2018 07:59 PM
Xylenes, Total	0.51		0.097	mg/Kg-dry	1	3/1/2018 07:59 PM
Surr: 1,2-Dichloroethane-d4	97.8		70-130	%REC	1	3/1/2018 07:59 PM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	3/1/2018 07:59 PM
Surr: Dibromofluoromethane	86.2		70-130	%REC	1	3/1/2018 07:59 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	3/1/2018 07:59 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 2/27/18 17:09	Analyst: STP
Chloride	620		10	mg/Kg-dry	1	2/28/2018 05:30 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.6		0.050	% of sample	1	3/1/2018 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (1 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-21
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	2,900		51	mg/Kg-dry	10	3/7/2018 03:51 PM
ORO (C28-C40)	1,200		5.1	mg/Kg-dry	1	3/7/2018 01:16 AM
Surr: 4-Terphenyl-d14	75.6		34-130	%REC	1	3/7/2018 01:16 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	36		5.4	mg/Kg-dry	1	3/6/2018 06:01 AM
Surr: Toluene-d8	94.6		71-123	%REC	1	3/6/2018 06:01 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 12:07 PM
Ethylbenzene	ND		0.032	mg/Kg-dry	1	3/2/2018 12:07 PM
m,p-Xylene	0.38		0.064	mg/Kg-dry	1	3/2/2018 12:07 PM
o-Xylene	0.13		0.032	mg/Kg-dry	1	3/2/2018 12:07 PM
Toluene	ND		0.032	mg/Kg-dry	1	3/2/2018 12:07 PM
Xylenes, Total	0.51		0.097	mg/Kg-dry	1	3/2/2018 12:07 PM
Surr: 1,2-Dichloroethane-d4	105		70-130	%REC	1	3/2/2018 12:07 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	3/2/2018 12:07 PM
Surr: Dibromofluoromethane	104		70-130	%REC	1	3/2/2018 12:07 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	3/2/2018 12:07 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	390		10	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.5		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (2 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-22
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	160		5.3	mg/Kg-dry	1	3/7/2018 01:45 AM
ORO (C28-C40)	130		5.3	mg/Kg-dry	1	3/7/2018 01:45 AM
Surr: 4-Terphenyl-d14	96.1		34-130	%REC	1	3/7/2018 01:45 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.7	mg/Kg-dry	1	3/6/2018 06:31 AM
Surr: Toluene-d8	97.8		71-123	%REC	1	3/6/2018 06:31 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:31 PM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:31 PM
m,p-Xylene	ND		0.068	mg/Kg-dry	1	3/2/2018 12:31 PM
o-Xylene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:31 PM
Toluene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:31 PM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 12:31 PM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	3/2/2018 12:31 PM
Surr: 4-Bromofluorobenzene	99.0		70-130	%REC	1	3/2/2018 12:31 PM
Surr: Dibromofluoromethane	104		70-130	%REC	1	3/2/2018 12:31 PM
Surr: Toluene-d8	94.7		70-130	%REC	1	3/2/2018 12:31 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	33		11	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	6.6		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (3 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-23
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	1,300		5.3	mg/Kg-dry	1	3/7/2018 02:14 AM
ORO (C28-C40)	580		5.3	mg/Kg-dry	1	3/7/2018 02:14 AM
Surr: 4-Terphenyl-d14	73.6		34-130	%REC	1	3/7/2018 02:14 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.6	mg/Kg-dry	1	3/6/2018 07:00 AM
Surr: Toluene-d8	97.9		71-123	%REC	1	3/6/2018 07:00 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:55 PM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:55 PM
m,p-Xylene	0.12		0.067	mg/Kg-dry	1	3/2/2018 12:55 PM
o-Xylene	0.050		0.034	mg/Kg-dry	1	3/2/2018 12:55 PM
Toluene	ND		0.034	mg/Kg-dry	1	3/2/2018 12:55 PM
Xylenes, Total	0.17		0.10	mg/Kg-dry	1	3/2/2018 12:55 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	3/2/2018 12:55 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/2/2018 12:55 PM
Surr: Dibromofluoromethane	100		70-130	%REC	1	3/2/2018 12:55 PM
Surr: Toluene-d8	96.2		70-130	%REC	1	3/2/2018 12:55 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	200		21	mg/Kg-dry	2	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.7		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S4 (4 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-24
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	2,800		52	mg/Kg-dry	10	3/7/2018 04:20 PM
ORO (C28-C40)	1,300		5.2	mg/Kg-dry	1	3/7/2018 02:43 AM
Surr: 4-Terphenyl-d14	104		34-130	%REC	1	3/7/2018 02:43 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.5	mg/Kg-dry	1	3/6/2018 07:30 AM
Surr: Toluene-d8	98.1		71-123	%REC	1	3/6/2018 07:30 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:19 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:19 AM
m,p-Xylene	ND		0.066	mg/Kg-dry	1	3/2/2018 01:19 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:19 AM
Toluene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:19 AM
Xylenes, Total	ND		0.099	mg/Kg-dry	1	3/2/2018 01:19 AM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	3/2/2018 01:19 AM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/2/2018 01:19 AM
Surr: Dibromofluoromethane	101		70-130	%REC	1	3/2/2018 01:19 AM
Surr: Toluene-d8	95.9		70-130	%REC	1	3/2/2018 01:19 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	230		10	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.6		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S5 (0 ft)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-25

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/1/18 11:59	Analyst: MEB
DRO (C10-C28)	16,000		100	mg/Kg-dry	20	3/7/2018 04:49 PM
ORO (C28-C40)	6,400		100	mg/Kg-dry	20	3/7/2018 04:49 PM
Surr: 4-Terphenyl-d14	300	S	34-130	%REC	20	3/7/2018 04:49 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	66		5.3	mg/Kg-dry	1	3/6/2018 08:00 AM
Surr: Toluene-d8	96.6		71-123	%REC	1	3/6/2018 08:00 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 01:43 AM
Ethylbenzene	0.25		0.032	mg/Kg-dry	1	3/2/2018 01:43 AM
m,p-Xylene	3.9		0.063	mg/Kg-dry	1	3/2/2018 01:43 AM
o-Xylene	1.1		0.032	mg/Kg-dry	1	3/2/2018 01:43 AM
Toluene	0.33		0.032	mg/Kg-dry	1	3/2/2018 01:43 AM
Xylenes, Total	5.1		0.095	mg/Kg-dry	1	3/2/2018 01:43 AM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	3/2/2018 01:43 AM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	3/2/2018 01:43 AM
Surr: Dibromofluoromethane	104		70-130	%REC	1	3/2/2018 01:43 AM
Surr: Toluene-d8	99.6		70-130	%REC	1	3/2/2018 01:43 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	2,000		41	mg/Kg-dry	4	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	2.8		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (3 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-26
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	860		5.2	mg/Kg-dry	1	3/3/2018 01:43 AM
ORO (C28-C40)	290		5.2	mg/Kg-dry	1	3/3/2018 01:43 AM
Surr: 4-Terphenyl-d14	50.6		34-130	%REC	1	3/3/2018 01:43 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	67		5.4	mg/Kg-dry	1	3/6/2018 08:30 AM
Surr: Toluene-d8	96.1		71-123	%REC	1	3/6/2018 08:30 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 02:08 AM
Ethylbenzene	0.14		0.032	mg/Kg-dry	1	3/2/2018 02:08 AM
m,p-Xylene	2.4		0.065	mg/Kg-dry	1	3/2/2018 02:08 AM
o-Xylene	0.88		0.032	mg/Kg-dry	1	3/2/2018 02:08 AM
Toluene	0.11		0.032	mg/Kg-dry	1	3/2/2018 02:08 AM
Xylenes, Total	3.3		0.097	mg/Kg-dry	1	3/2/2018 02:08 AM
Surr: 1,2-Dichloroethane-d4	87.0		70-130	%REC	1	3/2/2018 02:08 AM
Surr: 4-Bromofluorobenzene	99.5		70-130	%REC	1	3/2/2018 02:08 AM
Surr: Dibromofluoromethane	100		70-130	%REC	1	3/2/2018 02:08 AM
Surr: Toluene-d8	97.6		70-130	%REC	1	3/2/2018 02:08 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	1,200		41	mg/Kg-dry	4	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.9		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (6 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-27
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	1,200		5.0	mg/Kg-dry	1	3/3/2018 03:09 AM
ORO (C28-C40)	440		5.0	mg/Kg-dry	1	3/3/2018 03:09 AM
Surr: 4-Terphenyl-d14	71.1		34-130	%REC	1	3/3/2018 03:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	22		5.4	mg/Kg-dry	1	3/6/2018 10:57 AM
Surr: Toluene-d8	99.3		71-123	%REC	1	3/6/2018 10:57 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 02:32 AM
Ethylbenzene	0.056		0.032	mg/Kg-dry	1	3/2/2018 02:32 AM
m,p-Xylene	0.93		0.064	mg/Kg-dry	1	3/2/2018 02:32 AM
o-Xylene	0.35		0.032	mg/Kg-dry	1	3/2/2018 02:32 AM
Toluene	0.034		0.032	mg/Kg-dry	1	3/2/2018 02:32 AM
Xylenes, Total	1.3		0.096	mg/Kg-dry	1	3/2/2018 02:32 AM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	3/2/2018 02:32 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	3/2/2018 02:32 AM
Surr: Dibromofluoromethane	99.4		70-130	%REC	1	3/2/2018 02:32 AM
Surr: Toluene-d8	97.4		70-130	%REC	1	3/2/2018 02:32 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	950		10	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.4		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (9 in)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-28
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	810		5.1	mg/Kg-dry	1	3/3/2018 03:38 AM
ORO (C28-C40)	340		5.1	mg/Kg-dry	1	3/3/2018 03:38 AM
Surr: 4-Terphenyl-d14	56.6		34-130	%REC	1	3/3/2018 03:38 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	81		5.4	mg/Kg-dry	1	3/6/2018 11:27 AM
Surr: Toluene-d8	98.2		71-123	%REC	1	3/6/2018 11:27 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 02:56 AM
Ethylbenzene	0.16		0.032	mg/Kg-dry	1	3/2/2018 02:56 AM
m,p-Xylene	2.6		0.064	mg/Kg-dry	1	3/2/2018 02:56 AM
o-Xylene	0.92		0.032	mg/Kg-dry	1	3/2/2018 02:56 AM
Toluene	0.11		0.032	mg/Kg-dry	1	3/2/2018 02:56 AM
Xylenes, Total	3.5		0.097	mg/Kg-dry	1	3/2/2018 02:56 AM
Surr: 1,2-Dichloroethane-d4	88.6		70-130	%REC	1	3/2/2018 02:56 AM
Surr: 4-Bromofluorobenzene	98.2		70-130	%REC	1	3/2/2018 02:56 AM
Surr: Dibromofluoromethane	102		70-130	%REC	1	3/2/2018 02:56 AM
Surr: Toluene-d8	98.2		70-130	%REC	1	3/2/2018 02:56 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	1,300		41	mg/Kg-dry	4	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.5		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (1 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-29
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	370		5.2	mg/Kg-dry	1	3/3/2018 04:07 AM
ORO (C28-C40)	170		5.2	mg/Kg-dry	1	3/3/2018 04:07 AM
Surr: 4-Terphenyl-d14	57.1		34-130	%REC	1	3/3/2018 04:07 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	10		5.4	mg/Kg-dry	1	3/6/2018 11:56 AM
Surr: Toluene-d8	99.4		71-123	%REC	1	3/6/2018 11:56 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.032	mg/Kg-dry	1	3/2/2018 03:20 AM
Ethylbenzene	ND		0.032	mg/Kg-dry	1	3/2/2018 03:20 AM
m,p-Xylene	0.28		0.065	mg/Kg-dry	1	3/2/2018 03:20 AM
o-Xylene	0.10		0.032	mg/Kg-dry	1	3/2/2018 03:20 AM
Toluene	ND		0.032	mg/Kg-dry	1	3/2/2018 03:20 AM
Xylenes, Total	0.38		0.097	mg/Kg-dry	1	3/2/2018 03:20 AM
Surr: 1,2-Dichloroethane-d4	89.8		70-130	%REC	1	3/2/2018 03:20 AM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	3/2/2018 03:20 AM
Surr: Dibromofluoromethane	99.4		70-130	%REC	1	3/2/2018 03:20 AM
Surr: Toluene-d8	96.3		70-130	%REC	1	3/2/2018 03:20 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	300		10	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	3.7		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (2 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-30
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	13		5.2	mg/Kg-dry	1	3/3/2018 04:36 AM
ORO (C28-C40)	24		5.2	mg/Kg-dry	1	3/3/2018 04:36 AM
Surr: 4-Terphenyl-d14	48.5		34-130	%REC	1	3/3/2018 04:36 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.6	mg/Kg-dry	1	3/6/2018 12:26 PM
Surr: Toluene-d8	102		71-123	%REC	1	3/6/2018 12:26 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	3/2/2018 03:45 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	3/2/2018 03:45 AM
m,p-Xylene	ND		0.068	mg/Kg-dry	1	3/2/2018 03:45 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	3/2/2018 03:45 AM
Toluene	ND		0.034	mg/Kg-dry	1	3/2/2018 03:45 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 03:45 AM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	3/2/2018 03:45 AM
Surr: 4-Bromofluorobenzene	99.5		70-130	%REC	1	3/2/2018 03:45 AM
Surr: Dibromofluoromethane	99.6		70-130	%REC	1	3/2/2018 03:45 AM
Surr: Toluene-d8	95.4		70-130	%REC	1	3/2/2018 03:45 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	36		10	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	6.1		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S5 (3 ft)
Collection Date: 2/19/2018

Work Order: 18021528
Lab ID: 18021528-31
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	130		5.2	mg/Kg-dry	1	3/3/2018 05:33 AM
ORO (C28-C40)	65		5.2	mg/Kg-dry	1	3/3/2018 05:33 AM
Surr: 4-Terphenyl-d14	85.6		34-130	%REC	1	3/3/2018 05:33 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.6	mg/Kg-dry	1	3/6/2018 12:55 PM
Surr: Toluene-d8	94.8		71-123	%REC	1	3/6/2018 12:55 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	3/2/2018 04:09 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	3/2/2018 04:09 AM
m,p-Xylene	ND		0.067	mg/Kg-dry	1	3/2/2018 04:09 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	3/2/2018 04:09 AM
Toluene	ND		0.034	mg/Kg-dry	1	3/2/2018 04:09 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 04:09 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	3/2/2018 04:09 AM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	3/2/2018 04:09 AM
Surr: Dibromofluoromethane	102		70-130	%REC	1	3/2/2018 04:09 AM
Surr: Toluene-d8	96.3		70-130	%REC	1	3/2/2018 04:09 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	54		11	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.8		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 08-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S5 (4 ft)

Collection Date: 2/19/2018

Work Order: 18021528

Lab ID: 18021528-32

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	100		5.1	mg/Kg-dry	1	3/3/2018 06:03 AM
ORO (C28-C40)	48		5.1	mg/Kg-dry	1	3/3/2018 06:03 AM
Surr: 4-Terphenyl-d14	62.1		34-130	%REC	1	3/3/2018 06:03 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.5	mg/Kg-dry	1	3/6/2018 01:24 PM
Surr: Toluene-d8	96.8		71-123	%REC	1	3/6/2018 01:24 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 04:33 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/2/2018 04:33 AM
m,p-Xylene	ND		0.066	mg/Kg-dry	1	3/2/2018 04:33 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	3/2/2018 04:33 AM
Toluene	ND		0.033	mg/Kg-dry	1	3/2/2018 04:33 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 04:33 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	3/2/2018 04:33 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/2/2018 04:33 AM
Surr: Dibromofluoromethane	102		70-130	%REC	1	3/2/2018 04:33 AM
Surr: Toluene-d8	94.9		70-130	%REC	1	3/2/2018 04:33 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 15:00	Analyst: STP
Chloride	100		11	mg/Kg-dry	1	3/1/2018 06:45 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.1		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114852** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-114852-114852				Units: mg/Kg		Analysis Date: 2/28/2018 06:29 PM		
Client ID:		Run ID: GC8_180228B				SeqNo: 4914535		Prep Date: 2/28/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	ND	5.0								
ORO (C28-C40)	ND	5.0								
Surr: 4-Terphenyl-d14	2.383	0	3.33	0	71.6	34-130	0			

LCS		Sample ID: DLCSS1-114852-114852				Units: mg/Kg		Analysis Date: 2/28/2018 06:58 PM		
Client ID:		Run ID: GC8_180228B				SeqNo: 4914537		Prep Date: 2/28/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	300.5	5.0	333	0	90.2	65-122	0			
ORO (C28-C40)	370.7	5.0	333	0	111	81-116	0			
Surr: 4-Terphenyl-d14	2.317	0	3.33	0	69.6	34-130	0			

MS		Sample ID: 18021379-36B MS				Units: mg/Kg		Analysis Date: 2/28/2018 07:57 PM		
Client ID:		Run ID: GC8_180228B				SeqNo: 4914541		Prep Date: 2/28/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	302	4.9	326.9	0	92.4	65-122	0			
ORO (C28-C40)	321.3	4.9	326.9	0	98.3	81-116	0			
Surr: 4-Terphenyl-d14	2.994	0	3.269	0	91.6	34-130	0			

MSD		Sample ID: 18021379-36B MSD				Units: mg/Kg		Analysis Date: 2/28/2018 08:25 PM		
Client ID:		Run ID: GC8_180228B				SeqNo: 4914542		Prep Date: 2/28/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	288.1	4.9	326.6	0	88.2	65-122	302	4.72	30	
ORO (C28-C40)	299.7	4.9	326.6	0	91.8	81-116	321.3	6.93	30	
Surr: 4-Terphenyl-d14	2.811	0	3.266	0	86.1	34-130	2.994	6.3	30	

The following samples were analyzed in this batch:

18021528-01A	18021528-02A	18021528-03A
18021528-04A	18021528-05A	18021528-06A
18021528-07A	18021528-08A	18021528-09A
18021528-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021528
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114871** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-114871-114871				Units: mg/Kg		Analysis Date: 3/2/2018 06:27 AM		
Client ID:		Run ID: GC8_180301A				SeqNo: 4916714		Prep Date: 3/1/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
ORO (C28-C40)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	<i>2.917</i>	<i>0</i>	<i>3.33</i>	<i>0</i>	<i>87.6</i>	<i>34-130</i>	<i>0</i>			

LCS		Sample ID: DLCSS1-114871-114871				Units: mg/Kg		Analysis Date: 3/2/2018 06:56 AM		
Client ID:		Run ID: GC8_180301A				SeqNo: 4916715		Prep Date: 3/1/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	294	5.0	333	0	88.3	65-122	0			
ORO (C28-C40)	294.3	5.0	333	0	88.4	81-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>3.65</i>	<i>0</i>	<i>3.33</i>	<i>0</i>	<i>110</i>	<i>34-130</i>	<i>0</i>			

MS		Sample ID: 18021528-20A MS				Units: mg/Kg		Analysis Date: 3/2/2018 07:54 AM		
Client ID: S4 (9 in)		Run ID: GC8_180301A				SeqNo: 4916717		Prep Date: 3/1/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	3231	4.9	328.3	2698	162	65-122	0			SEO
ORO (C28-C40)	1590	4.9	328.3	1149	134	81-116	0			S
<i>Surr: 4-Terphenyl-d14</i>	<i>4.108</i>	<i>0</i>	<i>3.283</i>	<i>0</i>	<i>125</i>	<i>34-130</i>	<i>0</i>			

MSD		Sample ID: 18021528-20A MSD				Units: mg/Kg		Analysis Date: 3/2/2018 08:23 AM		
Client ID: S4 (9 in)		Run ID: GC8_180301A				SeqNo: 4916718		Prep Date: 3/1/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	3099	4.9	326.4	2698	123	65-122	3231	4.17	30	SEO
ORO (C28-C40)	1457	4.9	326.4	1149	94.4	81-116	1590	8.68	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>2.712</i>	<i>0</i>	<i>3.264</i>	<i>0</i>	<i>83.1</i>	<i>34-130</i>	<i>4.108</i>	<i>40.9</i>	<i>30</i>	<i>R</i>

The following samples were analyzed in this batch:

18021528-11A	18021528-12A	18021528-13A
18021528-14A	18021528-15A	18021528-16A
18021528-17A	18021528-18A	18021528-19A
18021528-20A	18021528-21A	18021528-22A
18021528-23A	18021528-24A	18021528-25A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021528
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114948** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-114948-114948				Units: mg/Kg		Analysis Date: 3/3/2018 12:45 PM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919289		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
ORO (C28-C40)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	2.367	0	3.33	0	71.1	34-130	0			

LCS		Sample ID: DLCSS1-114948-114948				Units: mg/Kg		Analysis Date: 3/3/2018 01:14 AM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919266		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	293.8	5.0	333	0	88.2	65-122	0			
ORO (C28-C40)	301.1	5.0	333	0	90.4	81-116	0			
<i>Surr: 4-Terphenyl-d14</i>	2.95	0	3.33	0	88.6	34-130	0			

MS		Sample ID: 18021528-26A MS				Units: mg/Kg		Analysis Date: 3/3/2018 02:11 AM		
Client ID: S5 (3 in)		Run ID: GC8_180302A				SeqNo: 4919268		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1150	5.0	330.8	825.5	98.2	65-122	0			
ORO (C28-C40)	490.6	5.0	330.8	274.6	65.3	81-116	0			S
<i>Surr: 4-Terphenyl-d14</i>	2.202	0	3.308	0	66.6	34-130	0			

MSD		Sample ID: 18021528-26A MSD				Units: mg/Kg		Analysis Date: 3/3/2018 02:40 AM		
Client ID: S5 (3 in)		Run ID: GC8_180302A				SeqNo: 4919269		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1095	5.0	331.9	825.5	81.1	65-122	1150	4.94	30	
ORO (C28-C40)	486.6	5.0	331.9	274.6	63.9	81-116	490.6	0.826	30	S
<i>Surr: 4-Terphenyl-d14</i>	1.894	0	3.319	0	57.1	34-130	2.202	15	30	

The following samples were analyzed in this batch:

18021528-26A	18021528-27A	18021528-28A
18021528-29A	18021528-30A	18021528-31A
18021528-32A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114819** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-114819-114819				Units: µg/Kg-dry		Analysis Date: 3/3/2018 04:32 PM		
Client ID:		Run ID: GC9_180302B				SeqNo: 4918797		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000								
Surr: Toluene-d8	4530	0	5000	0	90.6	71-123	0			

LCS		Sample ID: LCS-114819-114819				Units: µg/Kg-dry		Analysis Date: 3/3/2018 03:33 PM		
Client ID:		Run ID: GC9_180302B				SeqNo: 4918796		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	488800	5,000	500000	0	97.8	71-123	0			
Surr: Toluene-d8	4636	0	5000	0	92.7	71-123	0			

MS		Sample ID: 18021528-20A MS				Units: µg/Kg-dry		Analysis Date: 3/6/2018 08:59 AM		
Client ID: S4 (9 in)		Run ID: GC9_180305A				SeqNo: 4921508		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	441900	5,400	537300	17740	78.9	71-123	0			
Surr: Toluene-d8	5027	0	5373	0	93.6	71-123	0			

MSD		Sample ID: 18021528-20A MSD				Units: µg/Kg-dry		Analysis Date: 3/6/2018 09:29 AM		
Client ID: S4 (9 in)		Run ID: GC9_180305A				SeqNo: 4921509		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	597100	5,400	537300	17740	108	71-123	441900	29.9	30	
Surr: Toluene-d8	4968	0	5373	0	92.4	71-123	5027	1.19	30	

The following samples were analyzed in this batch:

18021528-01A	18021528-02A	18021528-03A
18021528-04A	18021528-05A	18021528-06A
18021528-07A	18021528-08A	18021528-09A
18021528-10A	18021528-11A	18021528-12A
18021528-13A	18021528-14A	18021528-15A
18021528-16A	18021528-17A	18021528-18A
18021528-19A	18021528-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114821** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-114821-114821				Units: µg/Kg-dry		Analysis Date: 3/6/2018 05:31 AM		
Client ID:		Run ID: GC9_180305A				SeqNo: 4921501		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000								
Surr: Toluene-d8	4960	0	5000	0	99.2	71-123	0			

LCS		Sample ID: LCS-114821-114821				Units: µg/Kg-dry		Analysis Date: 3/6/2018 04:32 AM		
Client ID:		Run ID: GC9_180305A				SeqNo: 4921500		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	435400	5,000	500000	0	87.1	71-123	0			
Surr: Toluene-d8	4751	0	5000	0	95	71-123	0			

MS		Sample ID: 18021528-21A MS				Units: µg/Kg-dry		Analysis Date: 3/6/2018 10:29 PM		
Client ID: S4 (1 ft)		Run ID: GC9_180306A				SeqNo: 4923467		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	510000	5,400	536300	36160	88.4	71-123	0			
Surr: Toluene-d8	5021	0	5363	0	93.6	71-123	0			

MSD		Sample ID: 18021528-21A MSD				Units: µg/Kg-dry		Analysis Date: 3/6/2018 10:58 PM		
Client ID: S4 (1 ft)		Run ID: GC9_180306A				SeqNo: 4923468		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	503600	5,400	536300	36160	87.2	71-123	510000	1.27	30	
Surr: Toluene-d8	4880	0	5363	0	91	71-123	5021	2.84	30	

The following samples were analyzed in this batch:

18021528-21A	18021528-22A	18021528-23A
18021528-24A	18021528-25A	18021528-26A
18021528-27A	18021528-28A	18021528-29A
18021528-30A	18021528-31A	18021528-32A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021528
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114820** Instrument ID **VMS8** Method: **SW8260B**

Sample ID: MBLK-114820-114820				Units: µg/Kg-dry			Analysis Date: 3/1/2018 07:43 PM			
Client ID:		Run ID: VMS8_180301B			SeqNo: 4916504		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>987</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.7</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>959</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95.9</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>884.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>88.4</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1023</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			

LCS				Sample ID: LCS-114820-114820			Units: µg/Kg-dry		Analysis Date: 3/1/2018 06:57 PM		
Client ID:		Run ID: VMS8_180301B			SeqNo: 4916500		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1077	30	1000	0	108	75-125	0				
Ethylbenzene	998	30	1000	0	99.8	75-125	0				
m,p-Xylene	2008	60	2000	0	100	80-125	0				
o-Xylene	1026	30	1000	0	103	75-125	0				
Toluene	1018	30	1000	0	102	70-125	0				
Xylenes, Total	3034	90	3000	0	101	75-125	0				
Surr: 1,2-Dichloroethane-d4	1043	0	1000	0	104	70-130	0				
Surr: 4-Bromofluorobenzene	961.5	0	1000	0	96.2	70-130	0				
Surr: Dibromofluoromethane	1038	0	1000	0	104	70-130	0				
Surr: Toluene-d8	996.5	0	1000	0	99.6	70-130	0				

MS				Sample ID: 18021528-20A MS			Units: µg/Kg-dry		Analysis Date: 3/2/2018 01:37 AM		
Client ID: S4 (9 in)			Run ID: VMS8_180301B			SeqNo: 4916535		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1010	32	1075	0	94	75-125	0				
Ethylbenzene	1085	32	1075	24.72	98.6	75-125	0				
m,p-Xylene	3746	64	2149	369.2	157	80-125	0			S	
o-Xylene	1654	32	1075	141.3	141	75-125	0			S	
Toluene	1093	32	1075	19.88	99.9	70-125	0				
Xylenes, Total	5400	97	3224	510	152	75-125	0			S	
Surr: 1,2-Dichloroethane-d4	1034	0	1075	0	96.2	70-130	0				
Surr: 4-Bromofluorobenzene	1097	0	1075	0	102	70-130	0				
Surr: Dibromofluoromethane	950	0	1075	0	88.4	70-130	0				
Surr: Toluene-d8	1080	0	1075	0	100	70-130	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: 114820 Instrument ID VMS8 Method: SW8260B

MSD				Sample ID: 18021528-20A MSD			Units: µg/Kg-dry		Analysis Date: 3/2/2018 01:52 AM		
Client ID: S4 (9 in)				Run ID: VMS8_180301B			SeqNo: 4916536		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1003	32	1075	0	93.4	75-125	1010	0.641	30		
Ethylbenzene	1096	32	1075	24.72	99.6	75-125	1085	0.986	30		
m,p-Xylene	3857	64	2149	369.2	162	80-125	3746	2.91	30	S	
o-Xylene	1694	32	1075	141.3	144	75-125	1654	2.41	30	S	
Toluene	1117	32	1075	19.88	102	70-125	1093	2.14	30		
Xylenes, Total	5551	97	3224	510	156	75-125	5400	2.76	30	S	
Surr: 1,2-Dichloroethane-d4	1030	0	1075	0	95.8	70-130	1034	0.417	30		
Surr: 4-Bromofluorobenzene	1105	0	1075	0	103	70-130	1097	0.781	30		
Surr: Dibromofluoromethane	915.6	0	1075	0	85.2	70-130	950	3.69	30		
Surr: Toluene-d8	1089	0	1075	0	101	70-130	1080	0.843	30		

The following samples were analyzed in this batch:

18021528-01A	18021528-02A	18021528-03A
18021528-04A	18021528-05A	18021528-06A
18021528-07A	18021528-08A	18021528-09A
18021528-10A	18021528-11A	18021528-12A
18021528-13A	18021528-14A	18021528-15A
18021528-16A	18021528-17A	18021528-18A
18021528-19A	18021528-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021528
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114822** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-114822-114822				Units: µg/Kg-dry			Analysis Date: 3/1/2018 11:43 PM		
Client ID:			Run ID: VMS9_180301B				SeqNo: 4916619			Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130		0					
Surr: 4-Bromofluorobenzene	982	0	1000	0	98.2	70-130		0					
Surr: Dibromofluoromethane	1026	0	1000	0	103	70-130		0					
Surr: Toluene-d8	950.5	0	1000	0	95	70-130		0					

LCS				Sample ID: LCS-114822-114822			Units: µg/Kg-dry		Analysis Date: 3/1/2018 10:31 PM		
Client ID:			Run ID: VMS9_180301B			SeqNo: 4916618		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	890.5	30	1000	0	89	75-125	0				
Ethylbenzene	1016	30	1000	0	102	75-125	0				
m,p-Xylene	2048	60	2000	0	102	80-125	0				
o-Xylene	1024	30	1000	0	102	75-125	0				
Toluene	1035	30	1000	0	104	70-125	0				
Xylenes, Total	3071	90	3000	0	102	75-125	0				
Surr: 1,2-Dichloroethane-d4	926.5	0	1000	0	92.6	70-130	0				
Surr: 4-Bromofluorobenzene	997	0	1000	0	99.7	70-130	0				
Surr: Dibromofluoromethane	1078	0	1000	0	108	70-130	0				
Surr: Toluene-d8	999	0	1000	0	99.9	70-130	0				

MS				Sample ID: 18021528-21A MS			Units: µg/Kg-dry		Analysis Date: 3/2/2018 08:11 AM		
Client ID: S4 (1 ft)			Run ID: VMS9_180301B			SeqNo: 4916637		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1111	32	1073	0	104	75-125	0				
Ethylbenzene	1102	32	1073	23.06	101	75-125	0				
m,p-Xylene	2726	64	2145	377	110	80-125	0				
o-Xylene	1288	32	1073	133.5	108	75-125	0				
Toluene	1065	32	1073	28.96	96.6	70-125	0				
Xylenes, Total	4014	97	3218	510	109	75-125	0				
Surr: 1,2-Dichloroethane-d4	1113	0	1073	0	104	70-130	0				
Surr: 4-Bromofluorobenzene	1099	0	1073	0	102	70-130	0				
Surr: Dibromofluoromethane	1133	0	1073	0	106	70-130	0				
Surr: Toluene-d8	1036	0	1073	0	96.6	70-130	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114822** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 18021528-21A MSD			Units: µg/Kg-dry		Analysis Date: 3/2/2018 08:35 AM	
Client ID: S4 (1 ft)				Run ID: VMS9_180301B			SeqNo: 4916638		Prep Date: 2/27/2018	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1082	32	1073	0	101	75-125	1111	2.64	30	
Ethylbenzene	1067	32	1073	23.06	97.3	75-125	1102	3.26	30	
m,p-Xylene	2636	64	2145	377	105	80-125	2726	3.36	30	
o-Xylene	1257	32	1073	133.5	105	75-125	1288	2.4	30	
Toluene	1022	32	1073	28.96	92.6	70-125	1065	4.16	30	
Xylenes, Total	3893	97	3218	510	105	75-125	4014	3.05	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1137</i>	<i>0</i>	<i>1073</i>	<i>0</i>	<i>106</i>	<i>70-130</i>	<i>1113</i>	<i>2.1</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1065</i>	<i>0</i>	<i>1073</i>	<i>0</i>	<i>99.3</i>	<i>70-130</i>	<i>1099</i>	<i>3.12</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1156</i>	<i>0</i>	<i>1073</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>1133</i>	<i>2.02</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>1040</i>	<i>0</i>	<i>1073</i>	<i>0</i>	<i>97</i>	<i>70-130</i>	<i>1036</i>	<i>0.413</i>	<i>30</i>	

The following samples were analyzed in this batch:

18021528-21A	18021528-22A	18021528-23A
18021528-24A	18021528-25A	18021528-26A
18021528-27A	18021528-28A	18021528-29A
18021528-30A	18021528-31A	18021528-32A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114818** Instrument ID **GALLERY** Method: **A4500-CI E-11**

MBLK		Sample ID: MBLK-114818-114818				Units: mg/Kg		Analysis Date: 2/28/2018 05:30 PM		
Client ID:		Run ID: GALLERY_180228C		SeqNo: 4913678		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride ND 10

MS		Sample ID: 18021528-01AMS				Units: mg/Kg		Analysis Date: 2/28/2018 05:30 PM		
Client ID: S2 (0 ft)		Run ID: GALLERY_180228C		SeqNo: 4913680		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 648 10 500 134.5 103 75-125 0

MSD		Sample ID: 18021528-01AMSD				Units: mg/Kg		Analysis Date: 2/28/2018 05:30 PM		
Client ID: S2 (0 ft)		Run ID: GALLERY_180228C		SeqNo: 4913681		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 485.3 10 500 134.5 70.2 75-125 648 28.7 25 SR

LCS1		Sample ID: LCS1-114818-114818				Units: mg/Kg		Analysis Date: 2/28/2018 05:30 PM		
Client ID:		Run ID: GALLERY_180228C		SeqNo: 4913701		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 96.94 10 100 0 96.9 80-120 0

LCS2		Sample ID: LCS2-114818-114818				Units: mg/Kg		Analysis Date: 2/28/2018 05:30 PM		
Client ID:		Run ID: GALLERY_180228C		SeqNo: 4913702		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 483.5 10 500 0 96.7 80-120 0

The following samples were analyzed in this batch:

18021528-01A	18021528-02A	18021528-03A
18021528-04A	18021528-05A	18021528-06A
18021528-07A	18021528-08A	18021528-09A
18021528-10A	18021528-11A	18021528-12A
18021528-13A	18021528-14A	18021528-15A
18021528-16A	18021528-17A	18021528-18A
18021528-19A	18021528-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021528
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114922** Instrument ID **GALLERY** Method: **A4500-CI E-11**

MBLK		Sample ID: MBLK-114922-114922				Units: mg/Kg		Analysis Date: 3/1/2018 06:45 PM		
Client ID:		Run ID: GALLERY_180301D		SeqNo: 4915966		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride ND 10

MS		Sample ID: 18021528-21AMS				Units: mg/Kg		Analysis Date: 3/1/2018 06:45 PM		
Client ID: S4 (1 ft)		Run ID: GALLERY_180301D		SeqNo: 4915968		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 721 9.9 496 374.8 69.8 75-125 0 S

MSD		Sample ID: 18021528-21AMSD				Units: mg/Kg		Analysis Date: 3/1/2018 06:45 PM		
Client ID: S4 (1 ft)		Run ID: GALLERY_180301D		SeqNo: 4915969		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 676 9.9 493.1 374.8 61.1 75-125 721 6.44 25 S

LCS1		Sample ID: LCS1-114922-114922				Units: mg/Kg		Analysis Date: 3/1/2018 06:45 PM		
Client ID:		Run ID: GALLERY_180301D		SeqNo: 4915989		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 100.8 10 100 0 101 80-120 0

LCS2		Sample ID: LCS2-114922-114922				Units: mg/Kg		Analysis Date: 3/1/2018 06:45 PM		
Client ID:		Run ID: GALLERY_180301D		SeqNo: 4915990		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 497.2 10 500 0 99.4 80-120 0

The following samples were analyzed in this batch:

18021528-21A	18021528-22A	18021528-23A
18021528-24A	18021528-25A	18021528-26A
18021528-27A	18021528-28A	18021528-29A
18021528-30A	18021528-31A	18021528-32A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **R230924** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R230924				Units: % of sample		Analysis Date: 3/1/2018 11:15 AM		
Client ID:		Run ID: MOIST_180301A				SeqNo: 4916827		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R230924				Units: % of sample		Analysis Date: 3/1/2018 11:15 AM		
Client ID:		Run ID: MOIST_180301A				SeqNo: 4916826		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 18021528-02A DUP				Units: % of sample		Analysis Date: 3/1/2018 11:15 AM		
Client ID: S2 (3 in)		Run ID: MOIST_180301A				SeqNo: 4916806		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.7 0.050 0 0 0 0-0 19.8 0.506 10

DUP		Sample ID: 18021528-11A DUP				Units: % of sample		Analysis Date: 3/1/2018 11:15 AM		
Client ID: S3 (6 in)		Run ID: MOIST_180301A				SeqNo: 4916816		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.83 0.050 0 0 0 0-0 19.12 1.53 10

The following samples were analyzed in this batch:

18021528-01A	18021528-02A	18021528-03A
18021528-04A	18021528-05A	18021528-06A
18021528-07A	18021528-08A	18021528-09A
18021528-10A	18021528-11A	18021528-12A
18021528-13A	18021528-14A	18021528-15A
18021528-16A	18021528-17A	18021528-18A
18021528-19A	18021528-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021528
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **R230931** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R230931				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916932		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R230931				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916931		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 18021554-01A DUP				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916922		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.48 0.050 0 0 0 0-0 20.59 0.536 10

DUP		Sample ID: 18021554-03A DUP				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916925		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.89 0.050 0 0 0 0-0 20.31 2.82 10

The following samples were analyzed in this batch:

18021528-21A	18021528-22A	18021528-23A
18021528-24A	18021528-25A	18021528-26A
18021528-27A	18021528-28A	18021528-29A
18021528-30A	18021528-31A	18021528-32A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



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HOLLAND, Michigan 49424

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Form 202r8

WORKORDER
#

19021528

PROJECT NAME		North Brushy Draw 35-6H		SITE ID		North Brushy Draw 35-6H		DATE		26/02/2018		PAGE		1 of 1	
PROJECT No.		17E-00043		EDD FORMAT				TURNAROUND		5 days		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy		DRO + GRO + ORO							
SEND REPORT TO		Raley		INVOICE ATTN TO		Jim Raley		BTX							
ADDRESS				ADDRESS		5315 Buena Vista Dr		Chloride							
CITY / STATE / ZIP				CITY / STATE / ZIP		Carlsbad, NM 88220									
PHONE				PHONE		575-885-1313									
FAX				FAX		575-885-3509									
E-MAIL		Karolina.blaney@wpxenergy.com; james.raley@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; James.Raley@wpxenergy.com		Hold							
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
1	S2 (0 ft)	S	19/02/2018		2			x	x	x					
2	S2 (3 in)	S	19/02/2018		2			x	x	x					
3	S2 (6 in)	S	19/02/2018		2			x	x	x					
4	S2 (9 in)	S	19/02/2018		2			x	x	x					
5	S2 (1 ft)	S	19/02/2018		2			x	x	x					
6	S2 (2 ft)	S	19/02/2018		2			x	x	x					
7	S2 (3 ft)	S	19/02/2018		2			x	x	x					
8	S2 (4 ft)	S	19/02/2018		2			x	x	x					

For metals or anions, please detail analytes below.

Comments:	322 4.2° ①	QC PACKAGE (check below)	
		X	LEVEL II (Standard QC)
			LEVEL III (Std QC + forms)
			LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035			

SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY <i>Karolina Blaney</i>	Karolina Blaney	26/02/2018	15:00
RECEIVED BY <i>Kevin Wiegand</i>	Kevin Wiegand	2/27/18	0930
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			



ALS Laboratory Group

HOLLAND, Michigan 49424

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Form 202r8

WORKORDER
#

18021528

PROJECT NAME		North Brushy Draw 35-6H		SAMPLER				DATE		26/02/2018		PAGE		1 of 1	
PROJECT No.		17E-00043		SITE ID		North Brushy Draw 35-6H		TURNAROUND		5 days		DISPOSAL		By Lab or Return to Client	
				EDD FORMAT											
				PURCHASE ORDER											
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy									
SEND REPORT TO		Raley		INVOICE ATTN TO		Jim Raley									
ADDRESS				ADDRESS		5315 Buena Vista Dr									
CITY / STATE / ZIP				CITY / STATE / ZIP		Carlsbad, NM 88220									
PHONE				PHONE		575-885-1313									
FAX				FAX		575-885-3509									
E-MAIL		Karolina.blaney@wpxenergy.com; james.ralej@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; James.Raley@wpxenergy.com									
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
9		S3 (0 ft)		S		19/02/2018				2					
10		S3 (3 in)		S		19/02/2018				2					
11		S3 (6 in)		S		19/02/2018				2					
12		S3 (9 in)		S		19/02/2018				2					
13		S3 (1 ft)		S		19/02/2018				2					
14		S3 (2 ft)		S		19/02/2018				2					
15		S3 (3 ft)		S		19/02/2018				2					
16		S3 (4 ft)		S		19/02/2018				2					

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	26/02/2018	15:00
RECEIVED BY	Keith Warren	Keith Warren	2/27/18	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



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WORKORDER
#

18021528

PROJECT NAME		North Brushy Draw 35-6H		SAMPLER				DATE		26/02/2018		PAGE		1 of 1	
PROJECT No.		17E-00043		SITE ID		North Brushy Draw 35-6H		TURNAROUND		5 days		DISPOSAL		By Lab or Return to Client	
EDD FORMAT				PURCHASE ORDER											
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy									
SEND REPORT TO		Raley		INVOICE ATTN TO		Jim Raley									
ADDRESS				ADDRESS		5315 Buena Vista Dr									
CITY / STATE / ZIP				CITY / STATE / ZIP		Carlsbad, NM 88220									
PHONE				PHONE		575-885-1313									
FAX				FAX		575-885-3509									
E-MAIL		Karolina.blaney@wpxenergy.com; james.ralej@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; James.Raley@wpxenergy.com									
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
17		S4 (0 ft)		S		19/02/2018				2					
18		S4 (3 in)		S		19/02/2018				2					
19		S4 (6 in)		S		19/02/2018				2					
20		S4 (9 in)		S		19/02/2018				2					
21		S4 (1 ft)		S		19/02/2018				2					
22		S4 (2 ft)		S		19/02/2018				2					
23		S4 (3 ft)		S		19/02/2018				2					
24		S4 (4 ft)		S		19/02/2018				2					

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

SIGNATURE		PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	26/02/2018	15:00
RECEIVED BY				
RELINQUISHED BY		KEVIN WIERENCA	2/27/18	0930
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER
#

18021528

PROJECT NAME		North Brushy Draw 35-6H		SAMPLER				DATE		26/02/2018		PAGE		1 of 1	
PROJECT No.		17E-00043		SITE ID		North Brushy Draw 35-6H		TURNAROUND		5 days		DISPOSAL		By Lab or Return to Client	
				EDD FORMAT											
				PURCHASE ORDER											
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy									
SEND REPORT TO		Raley		INVOICE ATTN TO		Jim Raley									
ADDRESS				ADDRESS		5315 Buena Vista Dr									
CITY / STATE / ZIP				CITY / STATE / ZIP		Carlsbad, NM 88220									
PHONE				PHONE		575-885-1313									
FAX				FAX		575-885-3509									
E-MAIL		Karolina.blaney@wpxenergy.com; james.ralej@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; James.Raley@wpxenergy.com									
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
25		S5 (0 ft)		S		19/02/2018				2					
26		S5 (3 in)		S		19/02/2018				2					
27		S5 (6 in)		S		19/02/2018				2					
28		S5 (9 in)		S		19/02/2018				2					
29		S5 (1 ft)		S		19/02/2018				2					
30		S5 (2 ft)		S		19/02/2018				2					
31		S5 (3 ft)		S		19/02/2018				2					
32		S5 (4 ft)		S		19/02/2018				2					

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

SIGNATURE		PRINTED NAME	DATE	TIME
RELINQUISHED BY <i>Karolina Blaney</i>		Karolina Blaney	26/02/2018	15:00
RECEIVED BY <i>Kevin Wilkerson</i>		Kevin Wilkerson	2/27/18	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **WPX - NM**

Date/Time Received: **27-Feb-18 09:30**

Work Order: **18021528**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

27-Feb-18
Date

Reviewed by: Chad Whelton
eSignature

01-Mar-18
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>4.2/4.2 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>2/27/2018 2:29:35 PM</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



07-Mar-2018

James Raley
WPX Energy
5315 Buena Vista Dr.
Carlsbad, NM 88220

Re: **North Brushy Draw 35-6H**

Work Order: **18021556**

Dear James,

ALS Environmental received 8 samples on 27-Feb-2018 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 22.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 998501

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy
Project: North Brushy Draw 35-6H
Work Order: 18021556

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
18021556-01	S1 (0 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-02	S1 (3 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-03	S1 (6 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-04	S1 (9 in)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-05	S1 (1 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-06	S1 (2 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-07	S1 (3 ft)	Soil		2/19/2018	2/27/2018 09:30	☐
18021556-08	S1 (4 ft)	Soil		2/19/2018	2/27/2018 09:30	☐

Client: WPX Energy
Project: North Brushy Draw 35-6H
Work Order: 18021556

Case Narrative

Batch 114821, Method GRO_8015_S, Sample 18021556-03A: GRO surrogate recovery high due to matrix interference.

Batch 114938, Method CL_4500E_DISC_S, Sample 18021556-02A MS: The MS recovery was outside of the control limit for Chloride. However, the MSD recovery and the RPD between the MS and MSD were in control. No qualification is required.

Batch 114948, Method DRLVI_8015_S, Sample 18021556-01A: DRO surrogate recovery high due to matrix interference.

Client: WPX Energy
Project: North Brushy Draw 35-6H
WorkOrder: 18021556

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (0 ft)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	4,400		52	mg/Kg-dry	10	3/6/2018 05:09 AM
ORO (C28-C40)	1,700		52	mg/Kg-dry	10	3/6/2018 05:09 AM
Surr: 4-Terphenyl-d14	275	S	34-130	%REC	10	3/6/2018 05:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	220		56	mg/Kg-dry	10	3/6/2018 01:57 PM
Surr: Toluene-d8	104		71-123	%REC	10	3/6/2018 01:57 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 04:57 AM
Ethylbenzene	1.4		0.033	mg/Kg-dry	1	3/2/2018 04:57 AM
m,p-Xylene	38		0.33	mg/Kg-dry	5	3/2/2018 01:59 PM
o-Xylene	10		0.17	mg/Kg-dry	5	3/2/2018 01:59 PM
Toluene	2.7		0.033	mg/Kg-dry	1	3/2/2018 04:57 AM
Xylenes, Total	48		0.50	mg/Kg-dry	5	3/2/2018 01:59 PM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	5	3/2/2018 01:59 PM
Surr: 1,2-Dichloroethane-d4	108		70-130	%REC	1	3/2/2018 04:57 AM
Surr: 4-Bromofluorobenzene	106		70-130	%REC	5	3/2/2018 01:59 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/2/2018 04:57 AM
Surr: Dibromofluoromethane	99.0		70-130	%REC	5	3/2/2018 01:59 PM
Surr: Dibromofluoromethane	105		70-130	%REC	1	3/2/2018 04:57 AM
Surr: Toluene-d8	111		70-130	%REC	1	3/2/2018 04:57 AM
Surr: Toluene-d8	114		70-130	%REC	5	3/2/2018 01:59 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 16:24	Analyst: STP
Chloride	8,300		110	mg/Kg-dry	10	3/2/2018 03:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.3		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (3 in)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	1,400		5.2	mg/Kg-dry	1	3/3/2018 09:25 AM
ORO (C28-C40)	560		5.2	mg/Kg-dry	1	3/3/2018 09:25 AM
Surr: 4-Terphenyl-d14	75.1		34-130	%REC	1	3/3/2018 09:25 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	390		5.5	mg/Kg-dry	1	3/6/2018 02:26 PM
Surr: Toluene-d8	83.1		71-123	%REC	1	3/6/2018 02:26 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 05:21 AM
Ethylbenzene	2.2		0.033	mg/Kg-dry	1	3/2/2018 05:21 AM
m,p-Xylene	47		0.66	mg/Kg-dry	10	3/2/2018 02:20 PM
o-Xylene	12		0.33	mg/Kg-dry	10	3/2/2018 02:20 PM
Toluene	3.8		0.033	mg/Kg-dry	1	3/2/2018 05:21 AM
Xylenes, Total	59		0.98	mg/Kg-dry	10	3/2/2018 02:20 PM
Surr: 1,2-Dichloroethane-d4	98.9		70-130	%REC	10	3/2/2018 02:20 PM
Surr: 1,2-Dichloroethane-d4	88.8		70-130	%REC	1	3/2/2018 05:21 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	10	3/2/2018 02:20 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/2/2018 05:21 AM
Surr: Dibromofluoromethane	96.6		70-130	%REC	10	3/2/2018 02:20 PM
Surr: Dibromofluoromethane	103		70-130	%REC	1	3/2/2018 05:21 AM
Surr: Toluene-d8	113		70-130	%REC	1	3/2/2018 05:21 AM
Surr: Toluene-d8	113		70-130	%REC	10	3/2/2018 02:20 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	1,800		42	mg/Kg-dry	4	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.4		0.050	% of sample	1	3/1/2018 06:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (6 in)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	1,600		5.2	mg/Kg-dry	1	3/3/2018 09:54 AM
ORO (C28-C40)	600		5.2	mg/Kg-dry	1	3/3/2018 09:54 AM
Surr: 4-Terphenyl-d14	75.6		34-130	%REC	1	3/3/2018 09:54 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	1,100		55	mg/Kg-dry	10	3/6/2018 02:59 PM
Surr: Toluene-d8	138	S	71-123	%REC	10	3/6/2018 02:59 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 05:46 AM
Ethylbenzene	2.1		0.033	mg/Kg-dry	1	3/2/2018 05:46 AM
m,p-Xylene	39		0.66	mg/Kg-dry	10	3/2/2018 02:41 PM
o-Xylene	10		0.33	mg/Kg-dry	10	3/2/2018 02:41 PM
Toluene	3.1		0.033	mg/Kg-dry	1	3/2/2018 05:46 AM
Xylenes, Total	50		0.99	mg/Kg-dry	10	3/2/2018 02:41 PM
Surr: 1,2-Dichloroethane-d4	101		70-130	%REC	10	3/2/2018 02:41 PM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	3/2/2018 05:46 AM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	10	3/2/2018 02:41 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	3/2/2018 05:46 AM
Surr: Dibromofluoromethane	97.5		70-130	%REC	10	3/2/2018 02:41 PM
Surr: Dibromofluoromethane	103		70-130	%REC	1	3/2/2018 05:46 AM
Surr: Toluene-d8	117		70-130	%REC	1	3/2/2018 05:46 AM
Surr: Toluene-d8	107		70-130	%REC	10	3/2/2018 02:41 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	1,700		42	mg/Kg-dry	4	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.9		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (9 in)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	1,000		5.2	mg/Kg-dry	1	3/3/2018 10:51 AM
ORO (C28-C40)	350		5.2	mg/Kg-dry	1	3/3/2018 10:51 AM
Surr: 4-Terphenyl-d14	55.6		34-130	%REC	1	3/3/2018 10:51 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	250		5.5	mg/Kg-dry	1	3/6/2018 03:28 PM
Surr: Toluene-d8	88.3		71-123	%REC	1	3/6/2018 03:28 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 06:10 AM
Ethylbenzene	1.4		0.033	mg/Kg-dry	1	3/2/2018 06:10 AM
m,p-Xylene	32		0.33	mg/Kg-dry	5	3/2/2018 03:02 PM
o-Xylene	8.7		0.17	mg/Kg-dry	5	3/2/2018 03:02 PM
Toluene	2.7		0.033	mg/Kg-dry	1	3/2/2018 06:10 AM
Xylenes, Total	40		0.50	mg/Kg-dry	5	3/2/2018 03:02 PM
Surr: 1,2-Dichloroethane-d4	97.1		70-130	%REC	5	3/2/2018 03:02 PM
Surr: 1,2-Dichloroethane-d4	88.2		70-130	%REC	1	3/2/2018 06:10 AM
Surr: 4-Bromofluorobenzene	109		70-130	%REC	5	3/2/2018 03:02 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/2/2018 06:10 AM
Surr: Dibromofluoromethane	97.4		70-130	%REC	5	3/2/2018 03:02 PM
Surr: Dibromofluoromethane	103		70-130	%REC	1	3/2/2018 06:10 AM
Surr: Toluene-d8	108		70-130	%REC	1	3/2/2018 06:10 AM
Surr: Toluene-d8	116		70-130	%REC	5	3/2/2018 03:02 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	2,200		42	mg/Kg-dry	4	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.2		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy

Project: North Brushy Draw 35-6H

Sample ID: S1 (1 ft)

Collection Date: 2/19/2018

Work Order: 18021556

Lab ID: 18021556-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	330		7.6	mg/Kg-dry	1	3/3/2018 11:20 AM
ORO (C28-C40)	140		7.6	mg/Kg-dry	1	3/3/2018 11:20 AM
Surr: 4-Terphenyl-d14	92.1		34-130	%REC	1	3/3/2018 11:20 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	100		5.5	mg/Kg-dry	1	3/6/2018 08:31 PM
Surr: Toluene-d8	95.5		71-123	%REC	1	3/6/2018 08:31 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: WH
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:17 PM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:17 PM
m,p-Xylene	0.54		0.066	mg/Kg-dry	1	3/2/2018 01:17 PM
o-Xylene	0.18		0.033	mg/Kg-dry	1	3/2/2018 01:17 PM
Toluene	ND		0.033	mg/Kg-dry	1	3/2/2018 01:17 PM
Xylenes, Total	0.72		0.099	mg/Kg-dry	1	3/2/2018 01:17 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	3/2/2018 01:17 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/2/2018 01:17 PM
Surr: Dibromofluoromethane	102		70-130	%REC	1	3/2/2018 01:17 PM
Surr: Toluene-d8	101		70-130	%REC	1	3/2/2018 01:17 PM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	130		10	mg/Kg-dry	1	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.8		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (2 ft)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	ND		7.7	mg/Kg-dry	1	3/3/2018 11:49 AM
ORO (C28-C40)	37		7.7	mg/Kg-dry	1	3/3/2018 11:49 AM
Surr: 4-Terphenyl-d14	56.6		34-130	%REC	1	3/3/2018 11:49 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	29		5.7	mg/Kg-dry	1	3/6/2018 09:00 PM
Surr: Toluene-d8	87.1		71-123	%REC	1	3/6/2018 09:00 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	3/2/2018 06:58 AM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	3/2/2018 06:58 AM
m,p-Xylene	ND		0.068	mg/Kg-dry	1	3/2/2018 06:58 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	3/2/2018 06:58 AM
Toluene	ND		0.034	mg/Kg-dry	1	3/2/2018 06:58 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 06:58 AM
Surr: 1,2-Dichloroethane-d4	89.2		70-130	%REC	1	3/2/2018 06:58 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	3/2/2018 06:58 AM
Surr: Dibromofluoromethane	102		70-130	%REC	1	3/2/2018 06:58 AM
Surr: Toluene-d8	98.6		70-130	%REC	1	3/2/2018 06:58 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	59		11	mg/Kg-dry	1	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	6.3		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (3 ft)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	ND		7.6	mg/Kg-dry	1	3/3/2018 12:18 PM
ORO (C28-C40)	7.7		7.6	mg/Kg-dry	1	3/3/2018 12:18 PM
Surr: 4-Terphenyl-d14	51.1		34-130	%REC	1	3/3/2018 12:18 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	15		5.6	mg/Kg-dry	1	3/6/2018 09:30 PM
Surr: Toluene-d8	101		71-123	%REC	1	3/6/2018 09:30 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:23 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:23 AM
m,p-Xylene	ND		0.067	mg/Kg-dry	1	3/2/2018 07:23 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:23 AM
Toluene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:23 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	3/2/2018 07:23 AM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	3/2/2018 07:23 AM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	3/2/2018 07:23 AM
Surr: Dibromofluoromethane	99.6		70-130	%REC	1	3/2/2018 07:23 AM
Surr: Toluene-d8	95.4		70-130	%REC	1	3/2/2018 07:23 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	ND		11	mg/Kg-dry	1	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	5.5		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 07-Mar-18

Client: WPX Energy
Project: North Brushy Draw 35-6H
Sample ID: S1 (4 ft)
Collection Date: 2/19/2018

Work Order: 18021556
Lab ID: 18021556-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015C		Prep: SW3546 3/2/18 11:52	Analyst: MEB
DRO (C10-C28)	ND		7.8	mg/Kg-dry	1	3/3/2018 12:47 PM
ORO (C28-C40)	8.4		7.8	mg/Kg-dry	1	3/3/2018 12:47 PM
Surr: 4-Terphenyl-d14	60.1		34-130	%REC	1	3/3/2018 12:47 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 2/27/18 19:42	Analyst: MEB
GRO (C6-C10)	ND		5.5	mg/Kg-dry	1	3/6/2018 09:59 PM
Surr: Toluene-d8	100		71-123	%REC	1	3/6/2018 09:59 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 2/27/18 19:46	Analyst: AK
Benzene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:47 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:47 AM
m,p-Xylene	ND		0.066	mg/Kg-dry	1	3/2/2018 07:47 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:47 AM
Toluene	ND		0.033	mg/Kg-dry	1	3/2/2018 07:47 AM
Xylenes, Total	ND		0.098	mg/Kg-dry	1	3/2/2018 07:47 AM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	3/2/2018 07:47 AM
Surr: 4-Bromofluorobenzene	99.7		70-130	%REC	1	3/2/2018 07:47 AM
Surr: Dibromofluoromethane	99.0		70-130	%REC	1	3/2/2018 07:47 AM
Surr: Toluene-d8	94.8		70-130	%REC	1	3/2/2018 07:47 AM
CHLORIDE						
			A4500-CL E-11		Prep: EXTRACT 3/1/18 17:44	Analyst: STP
Chloride	ND		10	mg/Kg-dry	1	3/2/2018 04:00 PM
MOISTURE						
			SW3550C			Analyst: NW
Moisture	4.5		0.050	% of sample	1	3/1/2018 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: WPX Energy
Work Order: 18021556
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114948** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-114948-114948				Units: mg/Kg		Analysis Date: 3/3/2018 12:45 PM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919289		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	ND	5.0								
ORO (C28-C40)	ND	5.0								
Surr: 4-Terphenyl-d14	2.367	0	3.33	0	71.1	34-130	0			

LCS		Sample ID: DLCSS1-114948-114948				Units: mg/Kg		Analysis Date: 3/3/2018 01:14 AM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919266		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	293.8	5.0	333	0	88.2	65-122	0			
ORO (C28-C40)	301.1	5.0	333	0	90.4	81-116	0			
Surr: 4-Terphenyl-d14	2.95	0	3.33	0	88.6	34-130	0			

MS		Sample ID: 18021528-26A MS				Units: mg/Kg		Analysis Date: 3/3/2018 02:11 AM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919268		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	1150	5.0	330.8	825.5	98.2	65-122	0			
ORO (C28-C40)	490.6	5.0	330.8	274.6	65.3	81-116	0			S
Surr: 4-Terphenyl-d14	2.202	0	3.308	0	66.6	34-130	0			

MSD		Sample ID: 18021528-26A MSD				Units: mg/Kg		Analysis Date: 3/3/2018 02:40 AM		
Client ID:		Run ID: GC8_180302A				SeqNo: 4919269		Prep Date: 3/2/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	1095	5.0	331.9	825.5	81.1	65-122	1150	4.94	30	
ORO (C28-C40)	486.6	5.0	331.9	274.6	63.9	81-116	490.6	0.826	30	S
Surr: 4-Terphenyl-d14	1.894	0	3.319	0	57.1	34-130	2.202	15	30	

The following samples were analyzed in this batch:

18021556-01A	18021556-02A	18021556-03A
18021556-04A	18021556-05A	18021556-06A
18021556-07A	18021556-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021556
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114821** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-114821-114821				Units: µg/Kg-dry		Analysis Date: 3/6/2018 05:31 AM		
Client ID:		Run ID: GC9_180305A				SeqNo: 4921501		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000								
Surr: Toluene-d8	4960	0	5000	0	99.2	71-123	0			

LCS		Sample ID: LCS-114821-114821				Units: µg/Kg-dry		Analysis Date: 3/6/2018 04:32 AM		
Client ID:		Run ID: GC9_180305A				SeqNo: 4921500		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	435400	5,000	500000	0	87.1	71-123	0			
Surr: Toluene-d8	4751	0	5000	0	95	71-123	0			

MS		Sample ID: 18021528-21A MS				Units: µg/Kg-dry		Analysis Date: 3/6/2018 10:29 PM		
Client ID:		Run ID: GC9_180306A				SeqNo: 4923467		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	510000	5,400	536300	36160	88.4	71-123	0			
Surr: Toluene-d8	5021	0	5363	0	93.6	71-123	0			

MSD		Sample ID: 18021528-21A MSD				Units: µg/Kg-dry		Analysis Date: 3/6/2018 10:58 PM		
Client ID:		Run ID: GC9_180306A				SeqNo: 4923468		Prep Date: 2/27/2018		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	503600	5,400	536300	36160	87.2	71-123	510000	1.27	30	
Surr: Toluene-d8	4880	0	5363	0	91	71-123	5021	2.84	30	

The following samples were analyzed in this batch:

18021556-01A	18021556-02A	18021556-03A
18021556-04A	18021556-05A	18021556-06A
18021556-07A	18021556-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021556
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114822** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-114822-114822				Units: µg/Kg-dry			Analysis Date: 3/1/2018 11:43 PM		
Client ID:			Run ID: VMS9_180301B				SeqNo: 4916619			Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130		0					
Surr: 4-Bromofluorobenzene	982	0	1000	0	98.2	70-130		0					
Surr: Dibromofluoromethane	1026	0	1000	0	103	70-130		0					
Surr: Toluene-d8	950.5	0	1000	0	95	70-130		0					

LCS				Sample ID: LCS-114822-114822			Units: µg/Kg-dry		Analysis Date: 3/1/2018 10:31 PM		
Client ID:		Run ID: VMS9_180301B			SeqNo: 4916618		Prep Date: 2/27/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	890.5	30	1000	0	89	75-125	0				
Ethylbenzene	1016	30	1000	0	102	75-125	0				
m,p-Xylene	2048	60	2000	0	102	80-125	0				
o-Xylene	1024	30	1000	0	102	75-125	0				
Toluene	1035	30	1000	0	104	70-125	0				
Xylenes, Total	3071	90	3000	0	102	75-125	0				
Surr: 1,2-Dichloroethane-d4	926.5	0	1000	0	92.6	70-130	0				
Surr: 4-Bromofluorobenzene	997	0	1000	0	99.7	70-130	0				
Surr: Dibromofluoromethane	1078	0	1000	0	108	70-130	0				
Surr: Toluene-d8	999	0	1000	0	99.9	70-130	0				

MS				Sample ID: 18021528-21A MS			Units: µg/Kg-dry		Analysis Date: 3/2/2018 08:11 AM		
Client ID:			Run ID: VMS9_180301B			SeqNo: 4916637		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1111	32	1073	0	104	75-125	0				
Ethylbenzene	1102	32	1073	23.06	101	75-125	0				
m,p-Xylene	2726	64	2145	377	110	80-125	0				
o-Xylene	1288	32	1073	133.5	108	75-125	0				
Toluene	1065	32	1073	28.96	96.6	70-125	0				
Xylenes, Total	4014	97	3218	510	109	75-125	0				
Surr: 1,2-Dichloroethane-d4	1113	0	1073	0	104	70-130	0				
Surr: 4-Bromofluorobenzene	1099	0	1073	0	102	70-130	0				
Surr: Dibromofluoromethane	1133	0	1073	0	106	70-130	0				
Surr: Toluene-d8	1036	0	1073	0	96.6	70-130	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021556
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114822** Instrument ID **VMS9** Method: **SW8260B**

MSD					Sample ID: 18021528-21A MSD			Units: µg/Kg-dry		Analysis Date: 3/2/2018 08:35 AM	
Client ID:			Run ID: VMS9_180301B			SeqNo: 4916638		Prep Date: 2/27/2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1082	32	1073	0	101	75-125	1111	2.64	30		
Ethylbenzene	1067	32	1073	23.06	97.3	75-125	1102	3.26	30		
m,p-Xylene	2636	64	2145	377	105	80-125	2726	3.36	30		
o-Xylene	1257	32	1073	133.5	105	75-125	1288	2.4	30		
Toluene	1022	32	1073	28.96	92.6	70-125	1065	4.16	30		
Xylenes, Total	3893	97	3218	510	105	75-125	4014	3.05	30		
Surr: 1,2-Dichloroethane-d4	1137	0	1073	0	106	70-130	1113	2.1	30		
Surr: 4-Bromofluorobenzene	1065	0	1073	0	99.3	70-130	1099	3.12	30		
Surr: Dibromofluoromethane	1156	0	1073	0	108	70-130	1133	2.02	30		
Surr: Toluene-d8	1040	0	1073	0	97	70-130	1036	0.413	30		

The following samples were analyzed in this batch:

18021556-01A	18021556-02A	18021556-03A
18021556-04A	18021556-05A	18021556-06A
18021556-07A	18021556-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021556
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114934** Instrument ID **GALLERY** Method: **A4500-CI E-11**

MBLK		Sample ID: MBLK-114934-114934				Units: mg/Kg		Analysis Date: 3/2/2018 03:00 PM		
Client ID:		Run ID: GALLERY_180302A		SeqNo: 4918028		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride ND 10

MS		Sample ID: 18021554-09AMS				Units: mg/Kg		Analysis Date: 3/2/2018 03:00 PM		
Client ID:		Run ID: GALLERY_180302A		SeqNo: 4918030		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 583.8 9.9 493.1 84.74 101 75-125 0

MSD		Sample ID: 18021554-09AMSD				Units: mg/Kg		Analysis Date: 3/2/2018 03:00 PM		
Client ID:		Run ID: GALLERY_180302A		SeqNo: 4918031		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 590.1 9.8 491.2 84.74 103 75-125 583.8 1.07 25

LCS1		Sample ID: LCS1-114934-114934				Units: mg/Kg		Analysis Date: 3/2/2018 03:00 PM		
Client ID:		Run ID: GALLERY_180302A		SeqNo: 4918051		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 98.96 10 100 0 99 80-120 0

LCS2		Sample ID: LCS2-114934-114934				Units: mg/Kg		Analysis Date: 3/2/2018 03:00 PM		
Client ID:		Run ID: GALLERY_180302A		SeqNo: 4918052		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 494.3 10 500 0 98.9 80-120 0

The following samples were analyzed in this batch:

18021556-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 18021556
 Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **114938** Instrument ID **GALLERY** Method: **A4500-CI E-11**

MBLK		Sample ID: MBLK-114938-114938				Units: mg/Kg		Analysis Date: 3/2/2018 04:00 PM		
Client ID:		Run ID: GALLERY_180302B		SeqNo: 4918053		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride ND 10

MS		Sample ID: 18021556-02AMS				Units: mg/Kg		Analysis Date: 3/2/2018 04:00 PM		
Client ID: S1 (3 in)		Run ID: GALLERY_180302B		SeqNo: 4918055		Prep Date: 3/1/2018		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 2368 40 499 1697 135 75-125 0 S

MSD		Sample ID: 18021556-02AMSD				Units: mg/Kg		Analysis Date: 3/2/2018 04:00 PM		
Client ID: S1 (3 in)		Run ID: GALLERY_180302B		SeqNo: 4918056		Prep Date: 3/1/2018		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 2091 40 497 1697 79.4 75-125 2368 12.4 25

LCS1		Sample ID: LCS1-114938-114938				Units: mg/Kg		Analysis Date: 3/2/2018 04:00 PM		
Client ID:		Run ID: GALLERY_180302B		SeqNo: 4918076		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 101.2 10 100 0 101 80-120 0

LCS2		Sample ID: LCS2-114938-114938				Units: mg/Kg		Analysis Date: 3/2/2018 04:00 PM		
Client ID:		Run ID: GALLERY_180302B		SeqNo: 4918077		Prep Date: 3/1/2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 499.7 10 500 0 99.9 80-120 0

The following samples were analyzed in this batch:

18021556-02A	18021556-03A	18021556-04A
18021556-05A	18021556-06A	18021556-07A
18021556-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021556
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **R230931** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R230931				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916932		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R230931				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916931		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 18021554-01A DUP				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916922		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.48 0.050 0 0 0 0-0 20.59 0.536 10

DUP		Sample ID: 18021554-03A DUP				Units: % of sample		Analysis Date: 3/1/2018 06:40 PM		
Client ID:		Run ID: MOIST_180301E		SeqNo: 4916925		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.89 0.050 0 0 0 0-0 20.31 2.82 10

The following samples were analyzed in this batch:

18021556-01A	18021556-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
Work Order: 18021556
Project: North Brushy Draw 35-6H

QC BATCH REPORT

Batch ID: **R230933** Instrument ID **MOIST** Method: **SW3550C**

MBLK				Sample ID: WBLKS-R230933				Units: % of sample			Analysis Date: 3/1/2018 07:40 PM			
Client ID:				Run ID: MOIST_180301F				SeqNo: 4917020			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Moisture		0.03	0.050								J			

LCS		Sample ID: LCS-R230933				Units: % of sample		Analysis Date: 3/1/2018 07:40 PM		
Client ID:		Run ID: MOIST_180301F			SeqNo: 4917019		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP				Sample ID: 18021556-03A DUP				Units: % of sample			Analysis Date: 3/1/2018 07:40 PM			
Client ID: S1 (6 in)				Run ID: MOIST_180301F				SeqNo: 4916999			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Moisture	4.85	0.050	0	0	0	0-0	4.89	0.821	10					

DUP				Sample ID: 18021559-13A DUP				Units: % of sample			Analysis Date: 3/1/2018 07:40 PM			
Client ID:				Run ID: MOIST_180301F				SeqNo: 4917016			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Moisture		10.98	0.050	0	0	0	0-0	11.13	1.36	10				

The following samples were analyzed in this batch:

18021556-03A	18021556-04A	18021556-05A
18021556-06A	18021556-07A	18021556-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER
#

18021556

PROJECT NAME		North Brushy Draw 35-6H		SITE ID		North Brushy Draw 35-6H		DATE		26/02/2018		PAGE		1 of 1	
PROJECT No.		17E-00043		EDD FORMAT				TURNAROUND		5 days		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		WPX Energy		BILL TO COMPANY		WPX Energy		DRO + GRO + ORO							
SEND REPORT TO		Raley		INVOICE ATTN TO		Jim Raley		BTX							
ADDRESS				ADDRESS		5315 Buena Vista Dr		Chloride							
CITY / STATE / ZIP				CITY / STATE / ZIP		Carlsbad, NM 88220		Hold							
PHONE				PHONE		575-885-1313									
FAX				FAX		575-885-3509									
E-MAIL		Karolina.blaney@wpxenergy.com; james.ralej@wpxenergy.com		E-MAIL		Karolina.blaney@wpxenergy.com; James.Raley@wpxenergy.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
1	S1 (0 ft)	S	19/02/2018		2			x	x	x					
2	S1 (3 in)	S	19/02/2018		2			x	x	x					
3	S1 (6 in)	S	19/02/2018		2			x	x	x					
4	S1 (9 in)	S	19/02/2018		2			x	x	x					
5	S1 (1 ft)	S	19/02/2018		2			x	x	x					
6	S1 (2 ft)	S	19/02/2018		2			x	x	x					
7	S1 (3 ft)	S	19/02/2018		2			x	x	x					
8	S1 (4 ft)	S	19/02/2018		2			x	x	x					

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
SR2 4.2° 	☒ LEVEL II (Standard QC)
	☐ LEVEL III (Std QC + forms)
	☐ LEVEL IV (Std QC + forms + raw data)
	☐
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	26/02/2018	15:00
RECEIVED BY		KEITH WIERENIA	26/2/18	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **WPX - NM**

Date/Time Received: **27-Feb-18 09:30**

Work Order: **18021556**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

27-Feb-18
Date

Reviewed by: Chad Whelton
eSignature

01-Mar-18
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>4.2/4.2 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>2/27/2018 3:30:51 PM</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: