



Crystal Weaver
Environmental Specialist
NMOCD District II

January 5, 2018

RE: WPX/RKI * Pinnacle State #2 * 30-015-27071 * 2RP-4492 Plan of Action

Ms. Weaver,

The purpose of this letter is to update our actions and work plan for the Pinnacle State #2 produced water release which occurred on November 2, 2017.

The horizontal extent of the release was immediately mapped with a Trimble GPS Unit (illustrated on attached map). Free liquids were removed with a vac truck of which 13 bbls was recovered from the original release of 18bbl. The impacted area was scraped off to prevent further vertical migration of the salt impacts. The impacted soil was hauled to a disposal facility. After the initial excavation activities were completed, WPX attempted to collect samples to depth from the area of release. Due to hard caliche layer samples were only able to be collected to a depth of 1', in an area off the well lease road. The results are summarized below and illustrated on attached map and lab results.

Location	Sample ID	DRO (mg/kg)	GRO	ORO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	Chlorides
Pinnacle #2	S1 at 0'	ND	ND	ND	ND	0.051	ND	0.094	2100
Pinnacle #2	S1 at 1'	ND	ND	ND	ND	ND	ND	ND	780
Pinnacle #2	S2 at 0'	ND	ND	ND	ND	0.056	ND	0.1	4300
Pinnacle #2	S2 at 1'	ND	ND	ND	ND	ND	ND	ND	6200

WPX will secure more robust mechanical sampling equipment capable of collecting additional soil samples at depth throughout the release area, to complete delineation.

Due to lack of available water depth information in this area the site has not been ranked. With collection of additional soil samples, an estimate for depth to groundwater will be established and release area will be ranked.

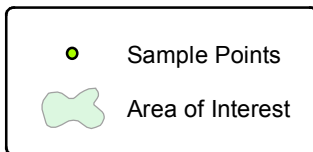
Please do not hesitate to contact me if you have any questions.

Sincerely,

James Raley
WPX Energy
Environmental Specialist
575-689-7597
james.raley@wpxenergy.com



Scale (absolute) -
1:1,250



Pinnacle #2 11/2/2017

Eddy County, NM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NOV 20 2017

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1732450165		OPERATOR	<input checked="" type="checkbox"/> Initial Report <input type="checkbox"/> Final Report
Name of Company: RKI Exploration / WPX Energy 246289		Contact: Karolina Blaney	
Address: 5315 Buena Vista Dr.		Telephone No. 970 589 0743	
Facility Name: Pinnacle State 2		Facility Type: Lease Road	
Surface Owner: State		Mineral Owner: State	API No. 30- 015-27071

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	36	22S	28E	1650	FNL	330	FWL	Eddy

Latitude: 32.35043_ **Longitude** -104.04907 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 18 bbls	Volume Recovered 13 bbls
Source of Release: flowline	Date and Hour of Occurrence 11/2/17	Date and Hour of Discovery 11/2/17 18:00
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Crystal Weaver & Michael Bratcher, SLO Amber Groves	
By Whom? Karolina Blaney	Date and Hour 11/3/17 at 11:50	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* The cause of this spill is mechanical failure. It appears that heavy equipment (i.e. low boy trailer) damaged a surface poly line which runs along a leas road within a pipeline ROW. Approximately 18 bbls of water was spilled out of the compromised line.		
Describe Area Affected and Cleanup Action Taken.* The impacted area was immediately mapped with a Trimble to delineate the horizontal extent of the impacts. The line locates were completed and the impacted area was scraped off. The impacted soil was hauled to a disposal facility. Baseline samples will be collected and sampled for TPH, BTEX and Chlorides. Further remediation will be based on the sampling results.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

Signature: <i>Karolina Blaney</i>		OIL CONSERVATION DIVISION	
Printed Name: Karolina Blaney		Approved by Environmental Specialist: <i>Crystal Weaver</i>	
Title: Environmental Specialist		Approval Date: 11/20/17	Expiration Date: N/A
E-mail Address: Karolina.blaney@wpenergy.com		Conditions of Approval: <i>see attached</i>	
Date: 11/17/17 Phone: 970 589 0743		Attached: <i>24624492</i>	

* Attach Additional Sheets If Necessary



04-Dec-2017

Karolina Blaney
WPX Energy
5315 Buena Vista Dr.
Carlsbad, NM 88220

Re: **Pinnacle 2**

Work Order: **17111499**

Dear Karolina,

ALS Environmental received 4 samples on 22-Nov-2017 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental 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 15.

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

Sincerely,

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

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 998501

Report of Laboratory Analysis

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185

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: Pinnacle 2
Work Order: 17111499

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>
17111499-01	Pinnacle 2 S1 0'	Soil		11/20/2017 08:00	11/22/2017 09:30	<input type="checkbox"/>
17111499-02	Pinnacle 2 S1 1'	Soil		11/20/2017 08:05	11/22/2017 09:30	<input type="checkbox"/>
17111499-03	Pinnacle 2 S2 0'	Soil		11/20/2017 08:10	11/22/2017 09:30	<input type="checkbox"/>
17111499-04	Pinnacle 2 S2 1'	Soil		11/20/2017 08:15	11/22/2017 09:30	<input type="checkbox"/>

Client: WPX Energy
Project: Pinnacle 2
WorkOrder: 17111499

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: 04-Dec-17

Client: WPX Energy

Project: Pinnacle 2

Sample ID: Pinnacle 2 S1 0'

Collection Date: 11/20/2017 08:00 AM

Work Order: 17111499

Lab ID: 17111499-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015C	Prep: SW3546	11/28/17 14:00	Analyst: KB
DRO (C10-C28)	ND		5.2	mg/Kg-dry	1	11/29/2017 12:42 PM
ORO (C28-C40)	ND		5.2	mg/Kg-dry	1	11/29/2017 12:42 PM
Surr: 4-Terphenyl-d14	44.0		34-130	%REC	1	11/29/2017 12:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D	Prep: SW5035	11/27/17 13:48	Analyst: KB
GRO (C6-C10)	ND		5.6	mg/Kg-dry	1	11/28/2017 07:29 AM
Surr: Toluene-d8	92.0		71-123	%REC	1	11/28/2017 07:29 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035	11/27/17 13:46	Analyst: WH
Benzene	ND		0.034	mg/Kg-dry	1	11/29/2017 07:27 AM
Ethylbenzene	0.051		0.034	mg/Kg-dry	1	11/29/2017 07:27 AM
m,p-Xylene	0.094		0.068	mg/Kg-dry	1	11/29/2017 07:27 AM
o-Xylene	ND		0.034	mg/Kg-dry	1	11/29/2017 07:27 AM
Toluene	ND		0.034	mg/Kg-dry	1	11/29/2017 07:27 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	11/29/2017 07:27 AM
Surr: 1,2-Dichloroethane-d4	101		70-130	%REC	1	11/29/2017 07:27 AM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	11/29/2017 07:27 AM
Surr: Dibromofluoromethane	83.8		70-130	%REC	1	11/29/2017 07:27 AM
Surr: Toluene-d8	97.1		70-130	%REC	1	11/29/2017 07:27 AM
CHLORIDE			A4500-CL C-11	Prep: EXTRACT	12/1/17 14:45	Analyst: JB
Chloride	2,100		32	mg/Kg-dry	1	12/1/2017 03:45 PM
MOISTURE			SW3550C			Analyst: NW
Moisture	6.0		0.050	% of sample	1	11/29/2017 03:50 PM

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

ALS Group, USA

Date: 04-Dec-17

Client: WPX Energy

Project: Pinnacle 2

Sample ID: Pinnacle 2 S1 1'

Collection Date: 11/20/2017 08:05 AM

Work Order: 17111499

Lab ID: 17111499-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015C	Prep: SW3546	11/28/17 14:00	Analyst: KB
DRO (C10-C28)	ND		5.1	mg/Kg-dry	1	11/29/2017 01:11 AM
ORO (C28-C40)	ND		5.1	mg/Kg-dry	1	11/29/2017 01:11 AM
Surr: 4-Terphenyl-d14	52.1		34-130	%REC	1	11/29/2017 01:11 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D	Prep: SW5035	11/27/17 13:48	Analyst: KB
GRO (C6-C10)	ND		5.4	mg/Kg-dry	1	11/28/2017 07:55 AM
Surr: Toluene-d8	90.3		71-123	%REC	1	11/28/2017 07:55 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035	11/27/17 13:46	Analyst: WH
Benzene	ND		0.033	mg/Kg-dry	1	11/29/2017 07:42 AM
Ethylbenzene	ND		0.033	mg/Kg-dry	1	11/29/2017 07:42 AM
m,p-Xylene	ND		0.065	mg/Kg-dry	1	11/29/2017 07:42 AM
o-Xylene	ND		0.033	mg/Kg-dry	1	11/29/2017 07:42 AM
Toluene	ND		0.033	mg/Kg-dry	1	11/29/2017 07:42 AM
Xylenes, Total	ND		0.098	mg/Kg-dry	1	11/29/2017 07:42 AM
Surr: 1,2-Dichloroethane-d4	99.8		70-130	%REC	1	11/29/2017 07:42 AM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	11/29/2017 07:42 AM
Surr: Dibromofluoromethane	82.4		70-130	%REC	1	11/29/2017 07:42 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	11/29/2017 07:42 AM
CHLORIDE			A4500-CL C-11	Prep: EXTRACT	12/1/17 14:45	Analyst: JB
Chloride	780		31	mg/Kg-dry	1	12/1/2017 03:45 PM
MOISTURE			SW3550C			Analyst: NW
Moisture	4.2		0.050	% of sample	1	11/29/2017 03:50 PM

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

ALS Group, USA

Date: 04-Dec-17

Client: WPX Energy

Project: Pinnacle 2

Sample ID: Pinnacle 2 S2 0'

Collection Date: 11/20/2017 08:10 AM

Work Order: 17111499

Lab ID: 17111499-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015C	Prep: SW3546	11/28/17 14:00	Analyst: KB
DRO (C10-C28)	ND		5.3	mg/Kg-dry	1	11/29/2017 01:40 AM
ORO (C28-C40)	ND		5.3	mg/Kg-dry	1	11/29/2017 01:40 AM
Surr: 4-Terphenyl-d14	40.0		34-130	%REC	1	11/29/2017 01:40 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D	Prep: SW5035	11/27/17 13:48	Analyst: KB
GRO (C6-C10)	ND		5.8	mg/Kg-dry	1	11/28/2017 08:21 AM
Surr: Toluene-d8	92.7		71-123	%REC	1	11/28/2017 08:21 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035	11/27/17 13:46	Analyst: WH
Benzene	ND		0.035	mg/Kg-dry	1	11/29/2017 07:58 AM
Ethylbenzene	0.056		0.035	mg/Kg-dry	1	11/29/2017 07:58 AM
m,p-Xylene	0.10		0.070	mg/Kg-dry	1	11/29/2017 07:58 AM
o-Xylene	ND		0.035	mg/Kg-dry	1	11/29/2017 07:58 AM
Toluene	ND		0.035	mg/Kg-dry	1	11/29/2017 07:58 AM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	11/29/2017 07:58 AM
Surr: 1,2-Dichloroethane-d4	101		70-130	%REC	1	11/29/2017 07:58 AM
Surr: 4-Bromofluorobenzene	99.0		70-130	%REC	1	11/29/2017 07:58 AM
Surr: Dibromofluoromethane	83.8		70-130	%REC	1	11/29/2017 07:58 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	11/29/2017 07:58 AM
CHLORIDE			A4500-CL C-11	Prep: EXTRACT	12/1/17 14:45	Analyst: JB
Chloride	4,300		33	mg/Kg-dry	1	12/1/2017 03:45 PM
MOISTURE			SW3550C			Analyst: NW
Moisture	7.4		0.050	% of sample	1	11/29/2017 03:50 PM

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

ALS Group, USA

Date: 04-Dec-17

Client: WPX Energy

Project: Pinnacle 2

Sample ID: Pinnacle 2 S2 1'

Collection Date: 11/20/2017 08:15 AM

Work Order: 17111499

Lab ID: 17111499-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015C	Prep: SW3546	11/28/17 14:00	Analyst: KB
DRO (C10-C28)	ND		5.4	mg/Kg-dry	1	11/29/2017 02:09 AM
ORO (C28-C40)	ND		5.4	mg/Kg-dry	1	11/29/2017 02:09 AM
Surr: 4-Terphenyl-d14	40.5		34-130	%REC	1	11/29/2017 02:09 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D	Prep: SW5035	11/27/17 13:48	Analyst: KB
GRO (C6-C10)	ND		6.0	mg/Kg-dry	1	11/28/2017 09:40 AM
Surr: Toluene-d8	93.2		71-123	%REC	1	11/28/2017 09:40 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035	11/27/17 13:46	Analyst: AK
Benzene	ND		0.036	mg/Kg-dry	1	11/30/2017 05:13 AM
Ethylbenzene	ND		0.036	mg/Kg-dry	1	11/30/2017 05:13 AM
m,p-Xylene	ND		0.072	mg/Kg-dry	1	11/30/2017 05:13 AM
o-Xylene	ND		0.036	mg/Kg-dry	1	11/30/2017 05:13 AM
Toluene	ND		0.036	mg/Kg-dry	1	11/30/2017 05:13 AM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	11/30/2017 05:13 AM
Surr: 1,2-Dichloroethane-d4	101		70-130	%REC	1	11/30/2017 05:13 AM
Surr: 4-Bromofluorobenzene	96.0		70-130	%REC	1	11/30/2017 05:13 AM
Surr: Dibromofluoromethane	85.6		70-130	%REC	1	11/30/2017 05:13 AM
Surr: Toluene-d8	97.1		70-130	%REC	1	11/30/2017 05:13 AM
CHLORIDE			A4500-CL C-11	Prep: EXTRACT	12/1/17 14:45	Analyst: JB
Chloride	6,200		33	mg/Kg-dry	1	12/1/2017 03:45 PM
MOISTURE			SW3550C			Analyst: NW
Moisture	9.1		0.050	% of sample	1	11/29/2017 03:50 PM

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

Client: WPX Energy
Work Order: 17111499
Project: Pinnacle 2

QC BATCH REPORT

Batch ID: **111060** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-111060-111060				Units: mg/Kg		Analysis Date: 11/28/2017 04:58 PM		
Client ID:		Run ID: GC8_171128A				SeqNo: 4782809		Prep Date: 11/28/2017		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	2.4	0	3.33	0	72.1	34-130	0			

LCS		Sample ID: DLCSS1-111060-111060				Units: mg/Kg		Analysis Date: 11/28/2017 05:27 PM		
Client ID:		Run ID: GC8_171128A				SeqNo: 4782811		Prep Date: 11/28/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	335	5.0	333	0	101	65-122	0			
ORO (C28-C40)	334	5.0	333	0	100	81-116	0			
Surr: 4-Terphenyl-d14	2.483	0	3.33	0	74.6	34-130	0			

MS		Sample ID: 17111497-02A MS				Units: mg/Kg		Analysis Date: 11/28/2017 06:25 PM		
Client ID:		Run ID: GC8_171128A				SeqNo: 4782814		Prep Date: 11/28/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	342.1	5.0	331.3	0	103	65-122	0			
ORO (C28-C40)	346.1	5.0	331.3	7.526	102	81-116	0			
Surr: 4-Terphenyl-d14	2.553	0	3.313	0	77.1	34-130	0			

MSD		Sample ID: 17111497-02A MSD				Units: mg/Kg		Analysis Date: 11/28/2017 06:54 PM		
Client ID:		Run ID: GC8_171128A				SeqNo: 4782815		Prep Date: 11/28/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	323.9	5.0	330.3	0	98.1	65-122	342.1	5.48	30	
ORO (C28-C40)	341	5.0	330.3	7.526	101	81-116	346.1	1.5	30	
Surr: 4-Terphenyl-d14	2.43	0	3.303	0	73.6	34-130	2.553	4.94	30	

The following samples were analyzed in this batch:

17111499-01A	17111499-02A	17111499-03A
17111499-04A		

Client: WPX Energy
 Work Order: 17111499
 Project: Pinnacle 2

QC BATCH REPORT

Batch ID: 111034 Instrument ID GC10 Method: SW8015D

MBLK		Sample ID: MBLK-111034-111034				Units: µg/Kg-dry		Analysis Date: 11/27/2017 07:22 PM		
Client ID:		Run ID: GC10_171127A				SeqNo: 4782664		Prep Date: 11/27/2017		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	4558	0	5000	0	91.2	71-123	0			

LCS		Sample ID: LCS-111034-111034				Units: µg/Kg-dry		Analysis Date: 11/27/2017 06:04 PM		
Client ID:		Run ID: GC10_171127A				SeqNo: 4782662		Prep Date: 11/27/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495600	5,000	500000	0	99.1	71-123	0			
Surr: Toluene-d8	5092	0	5000	0	102	71-123	0			

MS		Sample ID: 17111505-01A MS				Units: µg/Kg-dry		Analysis Date: 11/28/2017 03:18 PM		
Client ID:		Run ID: GC10_171127A				SeqNo: 4782702		Prep Date: 11/27/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	550100	5,600	557100	0	98.7	71-123	0			
Surr: Toluene-d8	5406	0	5571	0	97	71-123	0			

MSD		Sample ID: 17111505-01A MSD				Units: µg/Kg-dry		Analysis Date: 11/28/2017 03:44 PM		
Client ID:		Run ID: GC10_171127A				SeqNo: 4782703		Prep Date: 11/27/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	559900	5,600	557100	0	101	71-123	550100	1.78	30	
Surr: Toluene-d8	5475	0	5571	0	98.3	71-123	5406	1.26	30	

The following samples were analyzed in this batch:

17111499-01A	17111499-02A	17111499-03A
17111499-04A		

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

Client: WPX Energy
 Work Order: 17111499
 Project: Pinnacle 2

QC BATCH REPORT

Batch ID: 111033 Instrument ID VMS10 Method: SW8260B

MBLK Sample ID: MBLK-111033-111033				Units: µg/Kg-dry			Analysis Date: 11/29/2017 02:47 A			
Client ID:		Run ID: VMS10_171128B		SeqNo: 4783450		Prep Date: 11/27/2017		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	1012	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	992.5	0	1000	0	99.2	70-130	0			
Surr: Dibromofluoromethane	867	0	1000	0	86.7	70-130	0			
Surr: Toluene-d8	975	0	1000	0	97.5	70-130	0			

LCS Sample ID: LCS-111033-111033				Units: µg/Kg-dry			Analysis Date: 11/29/2017 02:00 A			
Client ID:		Run ID: VMS10_171128B		SeqNo: 4783449		Prep Date: 11/27/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1090	30	1000	0	109	75-125	0			
Ethylbenzene	960.5	30	1000	0	96	75-125	0			
m,p-Xylene	1888	60	2000	0	94.4	80-125	0			
o-Xylene	948.5	30	1000	0	94.8	75-125	0			
Toluene	1082	30	1000	0	108	70-125	0			
Xylenes, Total	2836	90	3000	0	94.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	968.5	0	1000	0	96.8	70-130	0			
Surr: 4-Bromofluorobenzene	1042	0	1000	0	104	70-130	0			
Surr: Dibromofluoromethane	996.5	0	1000	0	99.6	70-130	0			
Surr: Toluene-d8	995.5	0	1000	0	99.6	70-130	0			

MS Sample ID: 17111505-01A MS				Units: µg/Kg-dry			Analysis Date: 11/29/2017 08:14 A			
Client ID:		Run ID: VMS10_171128B		SeqNo: 4783468		Prep Date: 11/27/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1221	33	1114	0	110	75-125	0			
Ethylbenzene	1017	33	1114	0	91.3	75-125	0			
m,p-Xylene	2030	67	2228	0	91.1	80-125	0			
o-Xylene	1016	33	1114	0	91.2	75-125	0			
Toluene	1138	33	1114	0	102	70-125	0			
Xylenes, Total	3046	100	3342	0	91.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	1094	0	1114	0	98.2	70-130	0			
Surr: 4-Bromofluorobenzene	1200	0	1114	0	108	70-130	0			
Surr: Dibromofluoromethane	1042	0	1114	0	93.5	70-130	0			
Surr: Toluene-d8	1092	0	1114	0	98	70-130	0			

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

Client: WPX Energy
 Work Order: 17111499
 Project: Pinnacle 2

QC BATCH REPORT

Batch ID: 111033 Instrument ID VMS10 Method: SW8260B

MSD				Sample ID: 17111505-01A MSD			Units: µg/Kg-dry		Analysis Date: 11/29/2017 08:29 A	
Client ID:			Run ID: VMS10_171128B			SeqNo: 4783469		Prep Date: 11/27/2017		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1267	33	1114	0	114	75-125	1221	3.76	30	
Ethylbenzene	1083	33	1114	0	97.2	75-125	1017	6.26	30	
m,p-Xylene	2127	67	2228	0	95.5	80-125	2030	4.69	30	
o-Xylene	1066	33	1114	0	95.7	75-125	1016	4.87	30	
Toluene	1188	33	1114	0	107	70-125	1138	4.31	30	
Xylenes, Total	3194	100	3342	0	95.6	75-125	3046	4.75	30	
Surr: 1,2-Dichloroethane-d4	1089	0	1114	0	97.7	70-130	1094	0.46	30	
Surr: 4-Bromofluorobenzene	1241	0	1114	0	111	70-130	1200	3.38	30	
Surr: Dibromofluoromethane	1062	0	1114	0	95.4	70-130	1042	1.96	30	
Surr: Toluene-d8	1098	0	1114	0	98.6	70-130	1092	0.509	30	

The following samples were analyzed in this batch:

17111499-01A	17111499-02A	17111499-03A
17111499-04A		

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

Client: WPX Energy
 Work Order: 17111499
 Project: Pinnacle 2

QC BATCH REPORT

Batch ID: 111279 Instrument ID WETCHEM Method: A4500-CI C-11

MBLK		Sample ID: MBLK-111279-111279				Units: mg/Kg		Analysis Date: 12/1/2017 03:45 PM		
Client ID:		Run ID: WETCHEM_171201L		SeqNo: 4788677		Prep Date: 12/1/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride ND 30

LCS		Sample ID: LCS-111279-111279				Units: mg/Kg		Analysis Date: 12/1/2017 03:45 PM		
Client ID:		Run ID: WETCHEM_171201L		SeqNo: 4788678		Prep Date: 12/1/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 519.8 30 500 0 104 87-112 0

MS		Sample ID: 17111502-03A MS				Units: mg/Kg		Analysis Date: 12/1/2017 03:45 PM		
Client ID:		Run ID: WETCHEM_171201L		SeqNo: 4788686		Prep Date: 12/1/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 8231 30 502 7622 121 87-112 0 SO

MSD		Sample ID: 17111502-03A MSD				Units: mg/Kg		Analysis Date: 12/1/2017 03:45 PM		
Client ID:		Run ID: WETCHEM_171201L		SeqNo: 4788687		Prep Date: 12/1/2017		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 8165 30 498 7622 109 87-112 8231 0.8 10 O

The following samples were analyzed in this batch:

17111499-01A	17111499-02A	17111499-03A
17111499-04A		

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

Client: WPX Energy
Work Order: 17111499
Project: Pinnacle 2

QC BATCH REPORT

Batch ID: **R225482** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R225482				Units: % of sample		Analysis Date: 11/29/2017 03:50 PM		
Client ID:		Run ID: MOIST_171129C				SeqNo: 4784962		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-R225482				Units: % of sample		Analysis Date: 11/29/2017 03:50 PM		
Client ID:		Run ID: MOIST_171129C			SeqNo: 4784961		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: 17111461-22B DUP				Units: % of sample			Analysis Date: 11/29/2017 03:50 PM			
Client ID:				Run ID: MOIST_171129C				SeqNo: 4784945			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 23.58 0.050 0 0 0 0-0 23 2.49 5

DUP				Sample ID: 17111500-01A DUP				Units: % of sample			Analysis Date: 11/29/2017 03:50 PM			
Client ID:				Run ID: MOIST_171129C				SeqNo: 4784956			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 58.43 0.050 0 0 0 0-0 58.36 0.12 5

The following samples were analyzed in this batch:

17111499-01A	17111499-02A	17111499-03A
17111499-04A		

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



ALS Laboratory Group

Houston TX

Chain-of-Custody

Form 202r8

WORKORDER
#

17111499

PAGE

1 of 1

DISPOSAL

Lab or Return to Client

PROJECT NAME

Pinnacle 2

SAMPLER

SITE ID

Pinnacle 2

DATE

11/21/2017

TURNAROUND

5 day

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

WPX Energy

BILL TO COMPANY

WPX Energy

SEND REPORT TO

Blaney

INVOICE ATTN TO

Karolina Blaney

ADDRESS

ADDRESS

5315 Buena Vista Dr

CITY / STATE / ZIP

CITY / STATE / ZIP

Carlsbad, NM 88220

PHONE

PHONE

970 589 0743

FAX

FAX

E-MAIL

Karolina.blaney@wpxenergy.com;
james.raley@wpxenergy.com

E-MAIL

Karolina.blaney@wpxenergy.com;
James.Raley@wpxenergy.com

DRO+GRO+ORO

BTEX

Chlorides

Lab ID

Field ID

Matrix

Sample
Date

Sample
Time

Bottles

Pres.

QC

1

Pinnacle 2 S1 0'

S

11/20/2017

8:00

2

8

x

x

x

x

2

Pinnacle 2 S1 1'

S

11/20/2017

8:05

2

8

x

x

x

x

3

Pinnacle 2 S2 0'

S

11/20/2017

8:10

2

8

x

x

x

x

4

Pinnacle 2 S2 1'

S

11/20/2017

8:15

2

8

x

x

x

x

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

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)

Q

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

11/21/2017

15:00

RECEIVED BY

Nicole Fredenicks

11-22-17 0930

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Sample Receipt Checklist

Client Name: **WPX - NM**

Date/Time Received: **22-Nov-17 09:30**

Work Order: **17111499**

Received by: **NCF**

Checklist completed by Nicole Fredericks
eSignature

22-Nov-17
Date

Reviewed by: Chad Whelton
eSignature

27-Nov-17
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4/4.4</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/22/2017 12:26:39 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: