



Crystal Weaver
Environmental Specialist
NMOCD District II

January 13, 2017

Re: RDX 15-11 workplan for the characterization of impacts – Case # 4032

Dear Ms. Weaver,

The purpose of this letter is to propose a workplan for the characterization of impacts associated with the RDX 15-11 produced water and oil spill which occurred on December 5, 2016.

The impacted area was sampled on 12/7/2016; two grab samples were collected from the containment berm. The map of the impacted area along with the two sample locations and the laboratory report are included as an attachment. The results are summarized below:

Location	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	Chlorides (mg/kg)
RDX 15-11-1	270	ND	220	ND	ND	ND	ND	36000
RDX 15-11-2	61	ND	49	ND	ND	ND	ND	28000

The organic compounds tested below the cleanup thresholds however the chloride concentrations are exceeding OCD's cleanup standards. WPX proposes to delineate the salt impacts by excavating potholes and screening soil at various depths until salt concentrations screen below 250 mg/kg for chlorides. Two potholes will be located near the two sampling points to delineate vertical extent of the impacts. Additional potholes will be excavated along the perimeter of the SPCC containment berm to delineate the horizontal extent of the impacts. All samples will be screened for chlorides utilizing titration strips. Once the characterization is completed, WPX will submit the results to OCD along with a cleanup plan for prior approval. WPX will start the delineation activities upon the approval of this request.

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

Sincerely,

A handwritten signature in blue ink that reads "Karolina Blaney".

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



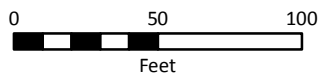
RDX 15-11
Permian Basin



Date: 12/13/2016
Map Scale (at 8.5" x 11"): 1:800
Projection: NAD 1927 UTM Zone 13N
Created By: Jeremy Andarakes
Facilities Engineering Dept. - GIS
3500 One Williams Center
Tulsa, OK 74172

Map Symbology

- WPX Well - Producing
- ★ Point of Interest
- Area of Interest





21-Dec-2016

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

Re: **RDX 15-11**

Work Order: **1612637**

Dear Karolina,

ALS Environmental received 2 samples on 10-Dec-2016 10:15 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

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Client: WPX Energy
Project: RDX 15-11
Work Order: 1612637

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>
1612637-01	RDX 15-11-1	Soil		12/7/2016 10:00	12/10/2016 10:15	☐
1612637-02	RDX 15-11-2	Soil		12/7/2016 10:20	12/10/2016 10:15	☐

Client: WPX Energy**Project:** RDX 15-11**Work Order:** 1612637**Case Narrative**

Batch 95757, Method DRO_8015_S, Sample 1612637-02B MSD: The RPD between the MS and MSD was outside the control limit for DRO/ORO. The corresponding result in the parent sample should be considered estimated.

Client: WPX Energy
Project: RDX 15-11
WorkOrder: 1612637

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
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: 21-Dec-16

Client: WPX Energy

Project: RDX 15-11

Sample ID: RDX 15-11-1

Collection Date: 12/7/2016 10:00 AM

Work Order: 1612637

Lab ID: 1612637-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/13/16	Analyst: IT
DRO (C10-C28)	270		5.7	mg/Kg-dry	1	12/16/2016 01:50 PM
ORO (C28-C40)	220		5.7	mg/Kg-dry	1	12/16/2016 01:50 PM
Surr: 4-Terphenyl-d14	66.0		39-133	%REC	1	12/16/2016 01:50 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 12/12/16	Analyst: IT
GRO (C6-C10)	ND		3.5	mg/Kg-dry	1	12/12/2016 04:20 PM
Surr: Toluene-d8	102		50-150	%REC	1	12/12/2016 04:20 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/12/16	Analyst: LSY
Benzene	ND		0.042	mg/Kg-dry	1	12/13/2016 05:36 AM
Ethylbenzene	ND		0.042	mg/Kg-dry	1	12/13/2016 05:36 AM
m,p-Xylene	ND		0.085	mg/Kg-dry	1	12/13/2016 05:36 AM
o-Xylene	ND		0.042	mg/Kg-dry	1	12/13/2016 05:36 AM
Toluene	ND		0.042	mg/Kg-dry	1	12/13/2016 05:36 AM
Xylenes, Total	ND		0.13	mg/Kg-dry	1	12/13/2016 05:36 AM
Surr: 1,2-Dichloroethane-d4	98.4		70-130	%REC	1	12/13/2016 05:36 AM
Surr: 4-Bromofluorobenzene	98.3		70-130	%REC	1	12/13/2016 05:36 AM
Surr: Dibromofluoromethane	84.2		70-130	%REC	1	12/13/2016 05:36 AM
Surr: Toluene-d8	99.4		70-130	%REC	1	12/13/2016 05:36 AM
CHLORIDE						
			A4500-CL E-97		Prep: EXTRACT / 12/14/16	Analyst: EVB
Chloride	36,000		1,200	mg/Kg-dry	100	12/20/2016 04:18 PM
MOISTURE						
			SW3550C			Analyst: EDL
Moisture	17		0.050	% of sample	1	12/13/2016 06:17 PM

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

ALS Group, USA

Date: 21-Dec-16

Client: WPX Energy

Project: RDX 15-11

Sample ID: RDX 15-11-2

Collection Date: 12/7/2016 10:20 AM

Work Order: 1612637

Lab ID: 1612637-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/13/16	Analyst: IT
DRO (C10-C28)	61		5.6	mg/Kg-dry	1	12/16/2016 11:51 AM
ORO (C28-C40)	49		5.6	mg/Kg-dry	1	12/16/2016 11:51 AM
Surr: 4-Terphenyl-d14	62.5		39-133	%REC	1	12/16/2016 11:51 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 / 12/12/16	Analyst: IT
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	12/12/2016 04:45 PM
Surr: Toluene-d8	106		50-150	%REC	1	12/12/2016 04:45 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 12/12/16	Analyst: LSY
Benzene	ND		0.039	mg/Kg-dry	1	12/13/2016 06:01 AM
Ethylbenzene	ND		0.039	mg/Kg-dry	1	12/13/2016 06:01 AM
m,p-Xylene	ND		0.078	mg/Kg-dry	1	12/13/2016 06:01 AM
o-Xylene	ND		0.039	mg/Kg-dry	1	12/13/2016 06:01 AM
Toluene	ND		0.039	mg/Kg-dry	1	12/13/2016 06:01 AM
Xylenes, Total	ND		0.12	mg/Kg-dry	1	12/13/2016 06:01 AM
Surr: 1,2-Dichloroethane-d4	98.4		70-130	%REC	1	12/13/2016 06:01 AM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	12/13/2016 06:01 AM
Surr: Dibromofluoromethane	90.6		70-130	%REC	1	12/13/2016 06:01 AM
Surr: Toluene-d8	99.6		70-130	%REC	1	12/13/2016 06:01 AM
CHLORIDE						
			A4500-CL E-97		Prep: EXTRACT / 12/14/16	Analyst: EVB
Chloride	28,000		340	mg/Kg-dry	30	12/20/2016 04:18 PM
MOISTURE						
			SW3550C			Analyst: EDL
Moisture	13		0.050	% of sample	1	12/13/2016 06:17 PM

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

Client: WPX Energy
Work Order: 1612637
Project: RDX 15-11

QC BATCH REPORT

Batch ID: **95757** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-95757-95757				Units: mg/Kg		Analysis Date: 12/14/2016 09:17 PM		
Client ID:		Run ID: GC8_161214A				SeqNo: 4205701		Prep Date: 12/13/2016		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	2.339	0	3.33	0	70.3	39-133	0			

LCS		Sample ID: DLCSS1-95757-95757				Units: mg/Kg		Analysis Date: 12/14/2016 09:46 PM		
Client ID:		Run ID: GC8_161214A				SeqNo: 4205702		Prep Date: 12/13/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	284	5.0	333	0	85.3	61-109	0			
ORO (C28-C40)	309.2	5.0	333	0	92.8	61-119	0			
Surr: 4-Terphenyl-d14	1.978	0	3.33	0	59.4	39-133	0			

MS		Sample ID: 1612637-02B MS				Units: mg/Kg		Analysis Date: 12/16/2016 10:52 A		
Client ID: RDX 15-11-2		Run ID: GC8_161216A				SeqNo: 4206579		Prep Date: 12/13/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	167.7	5.0	330.4	53.12	34.7	48-110	0			S
ORO (C28-C40)	183.9	5.0	330.4	42.25	42.9	39-140	0			
Surr: 4-Terphenyl-d14	1.483	0	3.304	0	44.9	39-133	0			

MSD		Sample ID: 1612637-02B MSD				Units: mg/Kg		Analysis Date: 12/16/2016 11:22 A		
Client ID: RDX 15-11-2		Run ID: GC8_161216A				SeqNo: 4206580		Prep Date: 12/13/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	281.2	4.9	325	53.12	70.2	48-110	167.7	50.5	30	R
ORO (C28-C40)	296	4.9	325	42.25	78.1	39-140	183.9	46.7	30	R
Surr: 4-Terphenyl-d14	1.851	0	3.25	0	57	39-133	1.483	22.1	30	

The following samples were analyzed in this batch: 1612637-01B 1612637-02B

Client: WPX Energy
 Work Order: 1612637
 Project: RDX 15-11

QC BATCH REPORT

Batch ID: 95709 Instrument ID GC9 Method: SW8015D

MBLK		Sample ID: MBLK-95709-95709				Units: µg/Kg-dry		Analysis Date: 12/12/2016 03:55 PM		
Client ID:		Run ID: GC9_161212A				SeqNo: 4199282		Prep Date: 12/12/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	4869	0	5000	0	97.4	50-150	0			

LCS		Sample ID: LCS-95709-95709				Units: µg/Kg-dry		Analysis Date: 12/12/2016 03:30 PM		
Client ID:		Run ID: GC9_161212A				SeqNo: 4199281		Prep Date: 12/12/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	514600	2,500	500000	0	103	70-130	0			
Surr: Toluene-d8	5502	0	5000	0	110	50-150	0			

MS		Sample ID: 1612637-01A MS				Units: µg/Kg-dry		Analysis Date: 12/12/2016 06:50 PM		
Client ID: RDX 15-11-1		Run ID: GC9_161212A				SeqNo: 4199289		Prep Date: 12/12/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	762900	3,500	704800	0	108	70-130	0			
Surr: Toluene-d8	7995	0	7048	0	113	50-150	0			

MSD		Sample ID: 1612637-01A MSD				Units: µg/Kg-dry		Analysis Date: 12/12/2016 07:15 PM		
Client ID: RDX 15-11-1		Run ID: GC9_161212A				SeqNo: 4199290		Prep Date: 12/12/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	826200	3,500	704800	0	117	70-130	762900	7.96	30	
Surr: Toluene-d8	8262	0	7048	0	117	50-150	7995	3.29	30	

The following samples were analyzed in this batch:

1612637-01A	1612637-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: WPX Energy
 Work Order: 1612637
 Project: RDX 15-11

QC BATCH REPORT

Batch ID: 95696 Instrument ID VMS9 Method: SW8260B

MBLK Sample ID: MBLK-95696-95696				Units: µg/Kg-dry			Analysis Date: 12/12/2016 01:39 PM			
Client ID:		Run ID: VMS9_161212A		SeqNo: 4199496		Prep Date: 12/12/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30	0	0	0	0-0	0			
Ethylbenzene	ND	30	0	0	0	0-0	0			
m,p-Xylene	ND	60	0	0	0	0-0	0			
o-Xylene	ND	30	0	0	0	0-0	0			
Toluene	ND	30	0	0	0	0-0	0			
Xylenes, Total	ND	90	0	0	0	0-0	0			
Surr: 1,2-Dichloroethane-d4	980.5	0	1000	0	98	70-130	0			
Surr: 4-Bromofluorobenzene	971.5	0	1000	0	97.2	70-130	0			
Surr: Dibromofluoromethane	933.5	0	1000	0	93.4	70-130	0			
Surr: Toluene-d8	989.5	0	1000	0	99	70-130	0			

LCS Sample ID: LCS-95696-95696				Units: µg/Kg-dry			Analysis Date: 12/12/2016 12:01 PM			
Client ID:		Run ID: VMS9_161212A		SeqNo: 4199491		Prep Date: 12/12/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1093	30	1000	0	109	75-125	0			
Ethylbenzene	1140	30	1000	0	114	75-125	0			
m,p-Xylene	2326	60	2000	0	116	80-125	0			
o-Xylene	1146	30	1000	0	115	75-125	0			
Toluene	1076	30	1000	0	108	70-125	0			
Xylenes, Total	3472	90	3000	0	116	75-125	0			
Surr: 1,2-Dichloroethane-d4	964.5	0	1000	0	96.4	70-130	0			
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	1034	0	1000	0	103	70-130	0			
Surr: Toluene-d8	994	0	1000	0	99.4	70-130	0			

MS Sample ID: 1612637-01A MS				Units: µg/Kg-dry			Analysis Date: 12/13/2016 09:41 A			
Client ID: RDX 15-11-1		Run ID: VMS9_161212B		SeqNo: 4198991		Prep Date: 12/12/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1414	42	1410	0	100	75-125	0			
Ethylbenzene	1527	42	1410	0	108	75-125	0			
m,p-Xylene	3086	85	2819	0	109	80-125	0			
o-Xylene	1547	42	1410	0	110	75-125	0			
Toluene	1430	42	1410	0	101	70-125	0			
Xylenes, Total	4633	130	4229	0	110	75-125	0			
Surr: 1,2-Dichloroethane-d4	1337	0	1410	0	94.8	70-130	0			
Surr: 4-Bromofluorobenzene	1453	0	1410	0	103	70-130	0			
Surr: Dibromofluoromethane	1336	0	1410	0	94.8	70-130	0			
Surr: Toluene-d8	1411	0	1410	0	100	70-130	0			

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

Client: WPX Energy
 Work Order: 1612637
 Project: RDX 15-11

QC BATCH REPORT

Batch ID: **95696** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1612637-01A MSD			Units: µg/Kg-dry		Analysis Date: 12/13/2016 10:06 A		
Client ID: RDX 15-11-1			Run ID: VMS9_161212B			SeqNo: 4198992		Prep Date: 12/12/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1420	42	1410	0	101	75-125	1414	0.448	30		
Ethylbenzene	1510	42	1410	0	107	75-125	1527	1.16	30		
m,p-Xylene	3081	85	2819	0	109	80-125	3086	0.16	30		
o-Xylene	1563	42	1410	0	111	75-125	1547	1.04	30		
Toluene	1446	42	1410	0	103	70-125	1430	1.08	30		
Xylenes, Total	4645	130	4229	0	110	75-125	4633	0.243	30		
Surr: 1,2-Dichloroethane-d4	1357	0	1410	0	96.3	70-130	1337	1.52	30		
Surr: 4-Bromofluorobenzene	1460	0	1410	0	104	70-130	1453	0.484	30		
Surr: Dibromofluoromethane	1370	0	1410	0	97.2	70-130	1336	2.55	30		
Surr: Toluene-d8	1411	0	1410	0	100	70-130	1411	0	30		

The following samples were analyzed in this batch:

1612637-01A 1612637-02A

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

Client: WPX Energy
 Work Order: 1612637
 Project: RDX 15-11

QC BATCH REPORT

Batch ID: 95849 Instrument ID GALLERY Method: A4500-CI E-97

MBLK		Sample ID: MBLK-95849-95849				Units: mg/Kg		Analysis Date: 12/20/2016 04:18 PM		
Client ID:		Run ID: GALLERY_161220B		SeqNo: 4213301		Prep Date: 12/14/2016		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: 1612543-01A MS				Units: mg/Kg		Analysis Date: 12/20/2016 04:18 PM		
Client ID:		Run ID: GALLERY_161220B		SeqNo: 4213303		Prep Date: 12/14/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 777.1 9.8 492.1 307.7 95.4 75-125 0

MSD		Sample ID: 1612543-01A MSD				Units: mg/Kg		Analysis Date: 12/20/2016 04:18 PM		
Client ID:		Run ID: GALLERY_161220B		SeqNo: 4213304		Prep Date: 12/14/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 765.2 9.9 495 307.7 92.4 75-125 777.1 1.53 25

LCS1		Sample ID: LCS1-95849-95849				Units: mg/Kg		Analysis Date: 12/20/2016 04:18 PM		
Client ID:		Run ID: GALLERY_161220B		SeqNo: 4213307		Prep Date: 12/14/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 104.9 10 100 0 105 80-120 0

LCS2		Sample ID: LCS2-95849-95849				Units: mg/Kg		Analysis Date: 12/20/2016 04:18 PM		
Client ID:		Run ID: GALLERY_161220B		SeqNo: 4213308		Prep Date: 12/14/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride 508.9 10 500 0 102 80-120 0

The following samples were analyzed in this batch:

1612637-01B 1612637-02B

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

Client: WPX Energy
Work Order: 1612637
Project: RDX 15-11

QC BATCH REPORT

Batch ID: **R202468** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R202468				Units: % of sample		Analysis Date: 12/13/2016 06:17 PM		
Client ID:		Run ID: MOIST_161213D				SeqNo: 4201379		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-R202468				Units: % of sample			Analysis Date: 12/13/2016 06:17 PM		
Client ID:				Run ID: MOIST_161213D				SeqNo: 4201377		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: 1612654-01B DUP				Units: % of sample			Analysis Date: 12/13/2016 06:17 PM		
Client ID:				Run ID: MOIST_161213D				SeqNo: 4201371		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture 15.21 0.050 0 0 0 15.59 2.47 20

DUP				Sample ID: 1612656-01B DUP				Units: % of sample			Analysis Date: 12/13/2016 06:17 PM			
Client ID:				Run ID: MOIST_161213D				SeqNo: 4201373			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 19.94 0.050 0 0 0 20.22 1.39 20

The following samples were analyzed in this batch:

1612637-01B 1612637-02B

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



ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r0

WORKORDER #

1612637

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME RDX 15-11

SAMPLER

SITE ID

RDX 15-11

DATE

12/7/2016

TURNAROUND

5 day

EDD FORMAT

PURCHASE ORDER

BILL TO COMPANY

WPX Energy

INVOICE ATTN TO

Karolina Blaney

ADDRESS

5315 Buena Vista Dr

CITY/STATE/ZIP

Carlsbad, NM 88220

PHONE

970 589 0743

FAX

E-MAIL

Karolina.blaney@wpxenergy.com

TPH DRG GRO ORO

BTEX 8260

Chloride

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

RDX 15-11-1

S

12/7/2016

10:00

1

8

x

x

x

x

RDX 15-11-2

S

12/7/2016

10:20

1

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)

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

12/7/2016

15:00

RECEIVED BY

Joe R. Bar

Joe R. Bar

12/10/16

1015

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

FedEx

SDR

FedEx

R

FedEx Sa

151968 10004 MWI

Delivery

FedEx

151968 10004 MWI

00037

00052

23478

1800.GoFedEx 1800.463.3339

06222047

FedEx
Express

Package
US Airbill

FedEx
Tracking
Number

8108 0927 4102

1 From
Date

12-7-16

Sender's
Name

KAROLINA BLANEY

Phone

970

Company

WPX ENERGY

Address

5315 BUENA VISTA

City

CARLSBAD

State

CA

2 Your Internal Billing Reference

3 To
Recipient's
Name

SAMPLE RECEIVING

Photo

Company

ALS ENVIRONMENTAL HOLLAND LAB

Address

3352 128TH AVE

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for coordination of your shipping address.

City

HOLLAND

FedEx
TRACK
0215

8108 0927 4102

X0 HLMA



SAT
FIRST OV

4942
MI-US
GRR

7.5

Service

To most locations.

Recipient's Copy

Packages up to 750 lbs.
For packages over 750 lbs., use the
FedEx Express Freight US Airbill.

2 or 3 Business Days

☐ FedEx 2Day AM
Second business morning.
Saturday Delivery NOT available.

☐ FedEx 2Day
Second business morning.
Saturday Delivery NOT available.

☐ FedEx Express Saver
Third business day.
Saturday Delivery NOT available.

☐ FedEx Box

☐ FedEx Tube

☐ Other

5 Packaging

☐ FedEx Envelope*

☐ FedEx Pak*

6 Special Handling and Delivery Signature Options

☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day AM, or FedEx Express Saver.

☐ No Signature
Required

☐ Direct Signature
Someone at recipient's address
may sign for delivery.

☐ Indirect Signature
If no one is available at recipient's
address, someone at a neighboring
address may sign for delivery for
residential deliveries only.

☐ Signature Required
Signature of recipient or authorized
person must be obtained.

☐ Signature Not Required

☐ Dry Ice
Dry Ice & UN 1845

☐ Cargo Aircraft Only

☐ Credit Card

☐ Cash/Check

☐ Credit Card Auth.

☐ Third Party

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

☐ Obtain Recip.
Acct. No.

Sample Receipt Checklist

Client Name: **WPX - NM**

Date/Time Received: **10-Dec-16 10:15**

Work Order: **1612637**

Received by: **JR**

Checklist completed by Joseph Ribar
eSignature

10-Dec-16
Date

Reviewed by: Joseph Ribar
eSignature

10-Dec-16
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>3.8C/3.8C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>12/10/2016 10:26:44 AM</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: