April 21, 2016

Stan Spencer
NW Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
796 Megan Ave, Suite 201,
Rifle, CO 81650

Re: RMV 54-28 Produced Water Spill Closure Request

Dear Mr. Spencer,

Attached are the laboratory reports and the sample location map for the soil samples collected from the impacted area, landfarmed material, and nearby non-impacted native soil in order to close the produced water spill that occurred at the RMV 54-28 well pad location and was discovered on December 29, 2015.

Two grab samples collected from the excavated area and one composite sample collected from the landfarm were analyzed for the constituents listed in Table 910-1
Three grab samples were collected from nearby non-impacted, native soil to establish the background concentrations for arsenic. In accordance with the COGCC Rule 910.b.(3)E. one grab sample was analyzed for inorganics to establish background soil conditions.

As the attached lab reports indicate, all constituents of concern listed in the COGCC Table 910-1 tested below the cleanup requirements or below the background concentrations with the exception of the inorganics. Therefore, in accordance with COGCC guideline Q32 regarding inorganics, the excavated area and landfarmed material, which was used as a backfill soil, will be covered with 3' of clean soil during final reclamation of the site to account for this exceedance.

Based on these results, WPX respectfully requests closure of this incident.

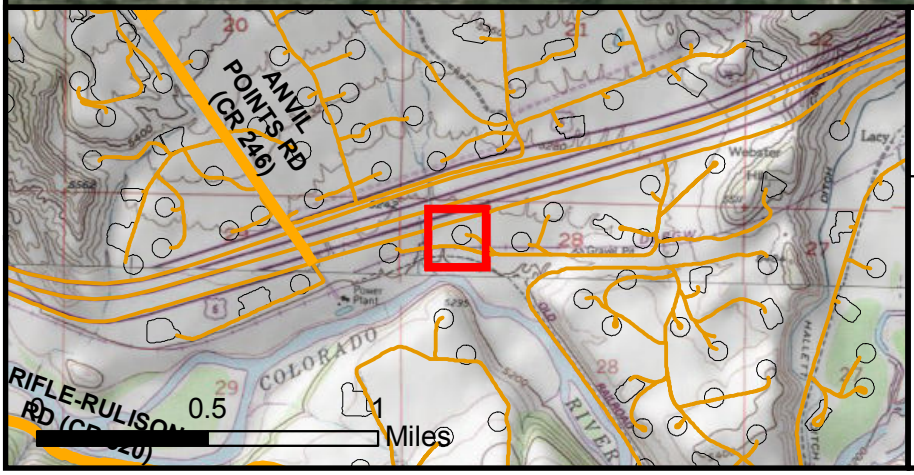
Please do not hesitate to contact me at (970) 683-2295 should you have any questions or concerns regarding this information.

Sincerely,

Karolina Blaney

Karolina Blaney
Environmental Specialist

Attachments (2)
- Sampling Location Map
- Laboratory Reports



Spill Closure Map

RMV 54-28

39.501595 -107.899461
Section 28, Township 6 South, Range 94 West

- Sample Location
- Impacted Area
- Road (from Garfield County)
- Existing Road
- Stream
- Existing Pad
- River

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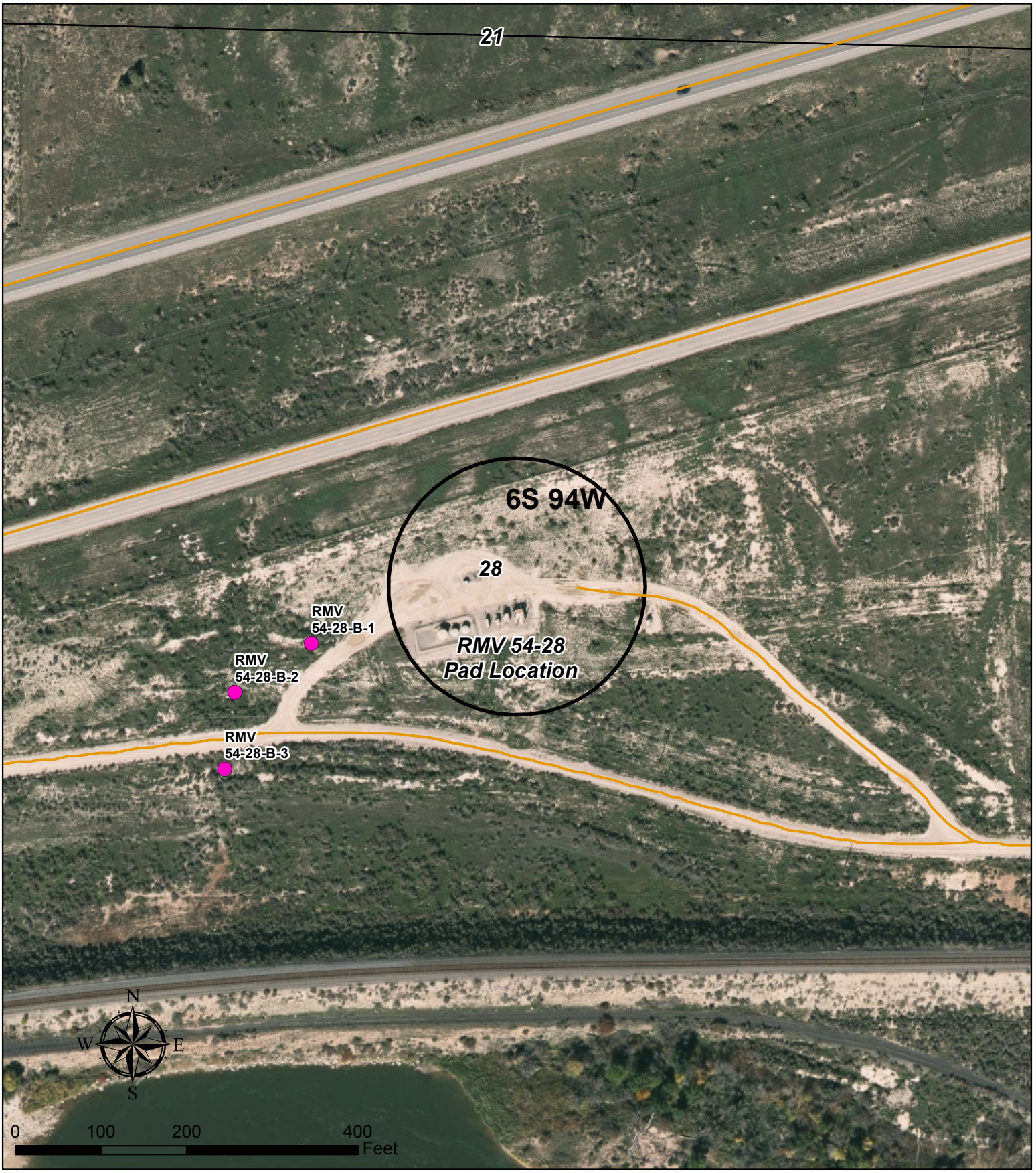
WPXENERGY

T:\Projects\PIC_MultiProspect\Ongoing\Spill_Mapping\SpillClosure_Map.mxd Atankers 3/30/2016 5:08:28 PM



Legend

- Sample Location
- Existing Road
- Existing Pad Limit of Disturbance

RMV 54-28
Arsenic Background Sample Location Map
T6S R94W, Section 28

March 30, 2016

WPXENERGY℠

T:\Projects\PIC_MultiProspect\09\0810_ArsenicSampling\SG 22-32.mxd hhancock 3/18/2010 9:40:00 AM

Analytical Results
RMV 54-28

Contaminant of Concern ↓	COGCC standards	Location →	RMV 54-28 Spill	RMV 54-28 Spill	RMV 54-28 Landfarm	RMV 54-28-B-1	RMV 54-28-B-2	RMV 54-28-B-3
		Date Sampled →	12/30/2015	3/16/2016	3/16/2016	3/16/2016	3/16/2016	3/16/2016
Organic Compounds in Soil								
TPH	500	mg/kg	950.0	85.0	195.0			
DRO		mg/kg	90.0	67	65			
GRO		mg/kg	860.00	18	130			
Benzene	0.17	mg/kg	1.40	ND	ND			
Toluene	85	mg/kg	ND		ND			
Ethylbenzene	100	mg/kg	3.60		0.045			
Xylenes (Total)	175	mg/kg	50.00		1.1			
Acenaphthene	1,000	mg/kg	ND		ND			
Anthracene	1,000	mg/kg	0.0084		ND			
Benzo(A)anthracene	0.22	mg/kg	ND		ND			
Benzo(B)fluoranthene	0.22	mg/kg	ND		ND			
Benzo(K)fluoranthene	2.2	mg/kg	ND		ND			
Benzo(A)pyrene	0.022	mg/kg	ND		ND			
Chrysene	22	mg/kg	ND		ND			
Dibenzo(A,H)anthracene	0.022	mg/kg	ND		ND			
Fluoranthene	1,000	mg/kg	ND		ND			
Fluorene	1,000	mg/kg	0.031		0.0086			
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND		ND			
Naphthalene	23	mg/kg	0.25		0.042			
Pyrene	1,000	mg/kg	ND		ND			
Inorganics in Soil								
EC	<4 or 2 x background	mmhos/cm	2.5		1.7	4.3		
SAR	<12		5.4		3.9	2.2		
pH	6-9		7.9		8.1	7.8		
Metals in Soil								
Arsenic	0.39	mg/kg	8.9		9.2	9.9	9.7	11
Barium total	15,000	mg/kg	230		180			
Cadmium	70	mg/kg	ND		ND			
Chromium (III)	120,000	mg/kg	9.6		14			
Chromium (VI)	23	mg/kg	ND		ND			
Copper	3,100	mg/kg	12		13			
Lead	400	mg/kg	11		9.9			
Mercury	23	mg/kg	0.022		0.019			
Nickel	1,600	mg/kg	15		18			
Selenium	390	mg/kg	ND		ND			
Silver	390	mg/kg	ND		ND			
Zinc	23,000	mg/kg	50		53			

05-Jan-2016

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **RMV 54-28 Spill** Work Order: **15121616**

Dear Karolina,

ALS Environmental received 1 sample on 31-Dec-2015 10:00 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 NELAP standard requirements and QC 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 24.

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

Sincerely,

Electronically approved by: Les Arnold

Les Arnold
Senior Project Manager

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 05-Jan-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: **15121616**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
15121616-01	RMV 54-28 SS1	Soil		12/30/2015 14:00	12/31/2015 10:00	☐

ALS Group USA, Corp

Date: 05-Jan-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: 15121616

Case Narrative

The attached "Sample Receipt Checklist" documents the date of receipt, status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

NO DEVIATIONS OR ANOMALIES WERE NOTED.

ALS Group USA, Corp

Date: *05-Jan-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: 15121616
Sample ID: RMV 54-28 SS1
Lab ID: 15121616-01
Collection Date: 12/30/2015 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3550 / 12/31/15	Analyst: **IT**
DRO (C10-C28)	**90**		**5.0**	**mg/Kg-dry**	1	12/31/2015 06:43 PM
Surr: 4-Terphenyl-d14	*68.2*		*39-133*	*%REC*	1	12/31/2015 06:43 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 12/31/15	Analyst: **IT**
GRO (C6-C10)	**860**		**3.0**	**mg/Kg-dry**	1	12/31/2015 06:21 PM
Surr: Toluene-d8	*100*		*50-150*	*%REC*	1	12/31/2015 06:21 PM
MERCURY BY CVAA			**SW7471B**		Prep: SW7471 / 1/4/16	Analyst: **LR**
Mercury	**0.022**		**0.015**	**mg/Kg-dry**	1	1/4/2016 04:16 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 1/5/16	Analyst: **JEC**
Calcium	**100**		**5.0**	**mg/L**	10	1/5/2016 12:39 PM
Magnesium	**52**		**2.0**	**mg/L**	10	1/5/2016 12:39 PM
Sodium	**270**		**2.0**	**mg/L**	10	1/5/2016 12:39 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 1/5/16	Analyst: **JEC**
Sodium Adsorption Ratio	**5.4**		**0.010**	**none**	1	1/5/2016
METALS BY ICP-MS			**SW6020A**		Prep: SW3050B / 12/31/15	Analyst: **ML**
Arsenic	**8.9**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Barium	**230**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Cadmium	ND		0.69	mg/Kg-dry	4	1/1/2016 01:14 AM
Chromium	**9.6**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Copper	**12**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Lead	**11**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Nickel	**15**		**1.7**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
Selenium	ND		1.7	mg/Kg-dry	4	1/1/2016 01:14 AM
Silver	ND		1.7	mg/Kg-dry	4	1/1/2016 01:14 AM
Zinc	**50**		**3.4**	**mg/Kg-dry**	4	1/1/2016 01:14 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3550 / 12/31/15	Analyst: **RM**
Acenaphthene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Anthracene	**0.0084**		**0.0080**	**mg/Kg-dry**	1	12/31/2015 09:51 PM
Benzo(a)anthracene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Benzo(a)pyrene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Benzo(b)fluoranthene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Benzo(k)fluoranthene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Chrysene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Dibenzo(a,h)anthracene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Fluoranthene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM

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

ALS Group USA, Corp

Date: *05-Jan-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: 15121616
Sample ID: RMV 54-28 SS1
Lab ID: 15121616-01
Collection Date: 12/30/2015 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	**0.031**		**0.0080**	**mg/Kg-dry**	1	12/31/2015 09:51 PM
Indeno(1,2,3-cd)pyrene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Naphthalene	**0.25**		**0.0080**	**mg/Kg-dry**	1	12/31/2015 09:51 PM
Pyrene	ND		0.0080	mg/Kg-dry	1	12/31/2015 09:51 PM
Surr: 2-Fluorobiphenyl	*69.5*		*12-100*	*%REC*	1	12/31/2015 09:51 PM
Surr: 4-Terphenyl-d14	*114*		*25-137*	*%REC*	1	12/31/2015 09:51 PM
Surr: Nitrobenzene-d5	*84.0*		*37-107*	*%REC*	1	12/31/2015 09:51 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 12/31/15	Analyst: **DD**
Benzene	**1.4**		**0.036**	**mg/Kg-dry**	1	12/31/2015 05:09 PM
Ethylbenzene	**3.6**		**0.036**	**mg/Kg-dry**	1	12/31/2015 05:09 PM
m,p-Xylene	**50**		**0.72**	**mg/Kg-dry**	10	1/4/2016 11:50 AM
o-Xylene	ND		0.036	mg/Kg-dry	1	12/31/2015 05:09 PM
Toluene	ND		0.036	mg/Kg-dry	1	12/31/2015 05:09 PM
Xylenes, Total	**50**		**1.1**	**mg/Kg-dry**	10	1/4/2016 11:50 AM
Surr: 1,2-Dichloroethane-d4	*91.8*		*70-130*	*%REC*	1	12/31/2015 05:09 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	10	1/4/2016 11:50 AM
Surr: 4-Bromofluorobenzene	*94.2*		*70-130*	*%REC*	1	12/31/2015 05:09 PM
Surr: 4-Bromofluorobenzene	*97.6*		*70-130*	*%REC*	10	1/4/2016 11:50 AM
Surr: Dibromofluoromethane	*99.0*		*70-130*	*%REC*	10	1/4/2016 11:50 AM
Surr: Dibromofluoromethane	*91.9*		*70-130*	*%REC*	1	12/31/2015 05:09 PM
Surr: Toluene-d8	*105*		*70-130*	*%REC*	10	1/4/2016 11:50 AM
Surr: Toluene-d8	*144*	S	*70-130*	*%REC*	1	12/31/2015 05:09 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 1/5/16	Analyst: **JB**
Electrical Conductivity @ Saturation	**2.5**		**0.050**	**mmhos/cm @2**	10	1/5/2016 11:00 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**9.6**		**0.60**	**mg/Kg-dry**	1	1/5/2016 05:20 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 1/4/16	Analyst: **MB**
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	1/5/2016 04:00 PM
MOISTURE			**E160.3M**			Analyst: **ED**
Moisture	**17**		**0.050**	**% of sample**	1	12/31/2015 04:58 PM
PH			**SW9045D**		Prep: EXTRACT / 1/4/16	Analyst: **STP**
pH	**7.9**			**s.u.**	1	1/4/2016 02:15 PM

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

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
WorkOrder: **15121616**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not 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
n	Not offered for accreditation
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 PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 05-Jan-16

Client: WPX Energy Rocky Mountain, LLC

Work Order: 15121616

Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80881** Instrument ID **GC8** Method: **SW8015M**

MBLK	Sample ID: **DBLKS1-80881-80881**			Units: **mg/Kg**			Analysis Date: **12/31/2015 04:14 PM**			
Client ID:	Run ID: **GC8_151231A**			SeqNo: **3644966**			Prep Date: **12/31/2015**		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								
Surr: 4-Terphenyl-d14	*1.698*	0	*2*	0	*84.9*	*39-133*	0			

LCS	Sample ID: **DLCSS1-80881-80881**			Units: **mg/Kg**			Analysis Date: **12/31/2015 04:44 PM**			
Client ID:	Run ID: **GC8_151231A**			SeqNo: **3644967**			Prep Date: **12/31/2015**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	159.4	5.0	200	0	79.7	61-109	0			
Surr: 4-Terphenyl-d14	*1.375*	0	*2*	0	*68.7*	*39-133*	0			

MS	Sample ID: **15121617-02B MS**			Units: **mg/Kg**			Analysis Date: **12/31/2015 05:14 PM**			
Client ID:	Run ID: **GC8_151231A**			SeqNo: **3644968**			Prep Date: **12/31/2015**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	153.2	4.1	164	38.53	69.9	48-110	0			
Surr: 4-Terphenyl-d14	*1.31*	0	*1.64*	0	*79.9*	*39-133*	0			

MSD	Sample ID: **15121617-02B MSD**			Units: **mg/Kg**			Analysis Date: **12/31/2015 05:44 PM**			
Client ID:	Run ID: **GC8_151231A**			SeqNo: **3644969**			Prep Date: **12/31/2015**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	161.6	4.1	162.8	38.53	75.6	48-110	153.2	5.34	30	
Surr: 4-Terphenyl-d14	*1.255*	0	*1.628*	0	*77.1*	*39-133*	1.31	*4.28*	*30*	

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80897** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-80897-80897** Units: **µg/Kg** Analysis Date: **12/31/2015 04:16 PM**
Client ID: Run ID: **GC9_151231A** SeqNo: **3645012** Prep Date: **12/31/2015** 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	*5126*	0	*5000*	0	*103*	*50-150*	0			

LCS Sample ID: **LCS-80897-80897** Units: **µg/Kg** Analysis Date: **12/31/2015 03:51 PM**
Client ID: Run ID: **GC9_151231A** SeqNo: **3645011** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	594200	2,500	500000	0	119	70-130	0			
Surr: Toluene-d8	*4842*	0	*5000*	0	*96.8*	*50-150*	0			

MS Sample ID: **15121617-01A MS** Units: **µg/Kg** Analysis Date: **12/31/2015 06:45 PM**
Client ID: Run ID: **GC9_151231A** SeqNo: **3645020** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	566300	2,500	500000	0	113	70-130	0			
Surr: Toluene-d8	*5011*	0	*5000*	0	*100*	*50-150*	0			

MSD Sample ID: **15121617-01A MSD** Units: **µg/Kg** Analysis Date: **12/31/2015 07:10 PM**
Client ID: Run ID: **GC9_151231A** SeqNo: **3645022** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	546100	2,500	500000	0	109	70-130	566300	3.64	30	
Surr: Toluene-d8	*4803*	0	*5000*	0	*96.1*	*50-150*	5011	*4.24*	*30*	

The following samples were analyzed in this batch: 15121616-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80938** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-80938-80938** Units: **mg/Kg** Analysis Date: **1/4/2016 03:48 PM**
Client ID: Run ID: **HG1_160104A** SeqNo: **3646100** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002667	0.020								J

LCS Sample ID: **LCS-80938-80938** Units: **mg/Kg** Analysis Date: **1/4/2016 03:50 PM**
Client ID: Run ID: **HG1_160104A** SeqNo: **3646101** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1625	0.020	0.1665	0	97.6	80-120	0			

MS Sample ID: **15121431-24BMS** Units: **mg/Kg** Analysis Date: **1/4/2016 03:57 PM**
Client ID: Run ID: **HG1_160104A** SeqNo: **3646105** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1181	0.014	0.1192	0.005208	94.7	75-125	0			

MSD Sample ID: **15121431-24BMSD** Units: **mg/Kg** Analysis Date: **1/4/2016 03:59 PM**
Client ID: Run ID: **HG1_160104A** SeqNo: **3646106** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1144	0.014	0.1173	0.005208	93.2	75-125	0.1181	3.18	35	

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80951** Instrument ID **ICP2** Method: **SW846 6010C**

DUP Sample ID: **15121616-01CDUP** Units: **mg/L** Analysis Date: **1/5/2016 12:44 PM**
Client ID: **RMV 54-28 SS1** Run ID: **ICP2_160105A** SeqNo: **3647304** Prep Date: **1/5/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	95.31	5.0	0	0	0	0-0	101.7	6.48		
Magnesium	48.43	2.0	0	0	0	0-0	52.37	7.82		
Sodium	253.4	2.0	0	0	0	0-0	269.2	6.04		

DUP Sample ID: **15121616-01CDUP** Units: **none** Analysis Date: **1/5/2016**
Client ID: **RMV 54-28 SS1** Run ID: **SAR_160105A** SeqNo: **3647350** Prep Date: **1/5/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.273	0.010	0	0	0		5.406	2.49	50	

The following samples were analyzed in this batch: 15121616-01C

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80869** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-80869-80869** Units: **mg/Kg** Analysis Date: **12/31/2015 10:25 PM**
Client ID: Run ID: **ICPMS1_151231A** SeqNo: **3645141** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	0.06085	0.25								J
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-80869-80869** Units: **mg/Kg** Analysis Date: **12/31/2015 10:32 PM**
Client ID: Run ID: **ICPMS1_151231A** SeqNo: **3645144** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.302	0.25	5	0	86	80-120	0			
Barium	4.456	0.25	5	0	89.1	80-120	0			
Cadmium	4.484	0.10	5	0	89.7	80-120	0			
Chromium	4.714	0.25	5	0	94.3	80-120	0			
Copper	4.544	0.25	5	0	90.9	80-120	0			
Lead	4.512	0.25	5	0	90.2	80-120	0			
Nickel	4.622	0.25	5	0	92.4	80-120	0			
Selenium	4.266	0.25	5	0	85.3	80-120	0			
Silver	4.554	0.25	5	0	91.1	80-120	0			
Zinc	4.28	0.50	5	0	85.6	80-120	0			

MS Sample ID: **15121394-09BMS** Units: **mg/Kg** Analysis Date: **1/1/2016 12:42 AM**
Client ID: Run ID: **ICPMS1_151231A** SeqNo: **3645189** Prep Date: **12/31/2015** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.06	1.4	6.831	3.552	95.3	75-125	0			
Barium	34.51	1.4	6.831	26.09	123	75-125	0			
Cadmium	6.863	0.55	6.831	0.3031	96	75-125	0			
Chromium	16.69	1.4	6.831	7.183	139	75-125	0			S
Copper	68.28	1.4	6.831	53.35	219	75-125	0			SO
Lead	54.81	1.4	6.831	43.07	172	75-125	0			SO
Nickel	17.45	1.4	6.831	8.847	126	75-125	0			S
Selenium	6.883	1.4	6.831	0.4092	94.8	75-125	0			
Silver	6.213	1.4	6.831	0.07406	89.9	75-125	0			
Zinc	52.35	2.7	6.831	49.12	47.3	75-125	0			SO

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80869** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **15121394-09BMSD** Units: **mg/Kg** Analysis Date: **1/1/2016 12:49 AM**
Client ID: Run ID: **ICPMS1_151231A** SeqNo: **3645190** Prep Date: **12/31/2015** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.16	1.4	6.812	3.552	97	75-125	10.06	0.969	25	
Barium	36.46	1.4	6.812	26.09	152	75-125	34.51	5.49	25	S
Cadmium	6.905	0.54	6.812	0.3031	96.9	75-125	6.863	0.599	25	
Chromium	20.64	1.4	6.812	7.183	198	75-125	16.69	21.1	25	S
Copper	41.14	1.4	6.812	53.35	-179	75-125	68.28	49.6	25	SRO
Lead	59.89	1.4	6.812	43.07	247	75-125	54.81	8.86	25	SO
Nickel	16.46	1.4	6.812	8.847	112	75-125	17.45	5.79	25	
Selenium	6.736	1.4	6.812	0.4092	92.9	75-125	6.883	2.16	25	
Silver	6.188	1.4	6.812	0.07406	89.8	75-125	6.213	0.405	25	
Zinc	69.86	2.7	6.812	49.12	305	75-125	52.35	28.7	25	SRO

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80880** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-80880-80880** Units: **µg/Kg** Analysis Date: **12/31/2015 05:40 PM**
Client ID: Run ID: **SVMS8_151231B** SeqNo: **3645857** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	*1562*	0	*1667*	0	*93.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2108*	0	*1667*	0	*126*	*25-137*	0			
Surr: Nitrobenzene-d5	*1756*	0	*1667*	0	*105*	*37-107*	0			

LCS Sample ID: **SLCSS1-80880-80880** Units: **µg/Kg** Analysis Date: **12/31/2015 06:00 PM**
Client ID: Run ID: **SVMS8_151231B** SeqNo: **3645858** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	595	6.7	666.7	0	89.2	45-110	0			
Anthracene	696	6.7	666.7	0	104	55-105	0			
Benzo(a)anthracene	703	6.7	666.7	0	105	50-110	0			
Benzo(a)pyrene	728.7	6.7	666.7	0	109	50-110	0			
Benzo(b)fluoranthene	765.7	6.7	666.7	0	115	45-115	0			
Benzo(k)fluoranthene	756.3	6.7	666.7	0	113	45-115	0			
Chrysene	714	6.7	666.7	0	107	55-110	0			
Dibenzo(a,h)anthracene	734	6.7	666.7	0	110	40-125	0			
Fluoranthene	752.7	6.7	666.7	0	113	55-115	0			
Fluorene	618.7	6.7	666.7	0	92.8	50-110	0			
Indeno(1,2,3-cd)pyrene	763	6.7	666.7	0	114	40-120	0			
Naphthalene	670.7	6.7	666.7	0	101	40-105	0			
Pyrene	764.3	6.7	666.7	0	115	45-125	0			
Surr: 2-Fluorobiphenyl	*1506*	0	*1667*	0	*90.4*	*12-100*	0			
Surr: 4-Terphenyl-d14	*2060*	0	*1667*	0	*124*	*25-137*	0			
Surr: Nitrobenzene-d5	*1777*	0	*1667*	0	*107*	*37-107*	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80880** Instrument ID **SVMS8** Method: **SW846 8270D**

MS Sample ID: **15121616-01B MS** Units: **µg/Kg** Analysis Date: **12/31/2015 09:11 PM**
Client ID: **RMV 54-28 SS1** Run ID: **SVMS8_151231B** SeqNo: **3645862** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	517.8	6.5	654.2	0	79.1	45-110	0			
Anthracene	667.6	6.5	654.2	6.985	101	55-105	0			
Benzo(a)anthracene	669.2	6.5	654.2	0	102	50-110	0			
Benzo(a)pyrene	709.5	6.5	654.2	0	108	50-110	0			
Benzo(b)fluoranthene	686.9	6.5	654.2	0	105	45-115	0			
Benzo(k)fluoranthene	701.3	6.5	654.2	0	107	45-115	0			
Chrysene	717.3	6.5	654.2	0	110	55-110	0			
Dibenzo(a,h)anthracene	685.6	6.5	654.2	0	105	40-125	0			
Fluoranthene	701.3	6.5	654.2	0	107	55-115	0			
Fluorene	570.5	6.5	654.2	25.61	83.3	50-110	0			
Indeno(1,2,3-cd)pyrene	694.8	6.5	654.2	0	106	40-120	0			
Naphthalene	761.5	6.5	654.2	211.2	84.1	40-105	0			
Pyrene	719.9	6.5	654.2	0	110	45-125	0			
Surr: 2-Fluorobiphenyl	*1285*	0	*1636*	0	*78.5*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1855*	0	*1636*	0	*113*	*25-137*	0			
Surr: Nitrobenzene-d5	*1699*	0	*1636*	0	*104*	*37-107*	0			

MSD Sample ID: **15121616-01B MSD** Units: **µg/Kg** Analysis Date: **12/31/2015 09:31 PM**
Client ID: **RMV 54-28 SS1** Run ID: **SVMS8_151231B** SeqNo: **3645863** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	495	6.6	664	0	74.5	45-110	517.8	4.51	30	
Anthracene	650	6.6	664	6.985	96.8	55-105	667.6	2.67	30	
Benzo(a)anthracene	660.3	6.6	664	0	99.4	50-110	669.2	1.35	30	
Benzo(a)pyrene	721	6.6	664	0	109	50-110	709.5	1.62	30	
Benzo(b)fluoranthene	715.7	6.6	664	0	108	45-115	686.9	4.11	30	
Benzo(k)fluoranthene	715.7	6.6	664	0	108	45-115	701.3	2.04	30	
Chrysene	710.4	6.6	664	0	107	55-110	717.3	0.967	30	
Dibenzo(a,h)anthracene	704.1	6.6	664	0	106	40-125	685.6	2.67	30	
Fluoranthene	706.8	6.6	664	0	106	55-115	701.3	0.777	30	
Fluorene	576.3	6.6	664	25.61	82.9	50-110	570.5	1.02	30	
Indeno(1,2,3-cd)pyrene	730.7	6.6	664	0	110	40-120	694.8	5.04	30	
Naphthalene	763.9	6.6	664	211.2	83.2	40-105	761.5	0.313	30	
Pyrene	731.7	6.6	664	0	110	45-125	719.9	1.62	30	
Surr: 2-Fluorobiphenyl	*1243*	0	*1660*	0	*74.9*	*12-100*	1285	*3.32*	*40*	
Surr: 4-Terphenyl-d14	*1849*	0	*1660*	0	*111*	*25-137*	1855	*0.282*	*40*	
Surr: Nitrobenzene-d5	*1627*	0	*1660*	0	*98*	*37-107*	1699	*4.35*	*40*	

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80896** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-80896-80896** Units: **µg/Kg** Analysis Date: **12/31/2015 08:26 PM**
Client ID: Run ID: **VMS9_151231A** SeqNo: **3644826** Prep Date: **12/31/2015** 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	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*890.5*	0	*1000*	0	*89*	*70-130*	0			
Surr: Dibromofluoromethane	*988.5*	0	*1000*	0	*98.8*	*70-130*	0			
Surr: Toluene-d8	*985.5*	0	*1000*	0	*98.6*	*70-130*	0			

LCS Sample ID: **LCS-80896-80896** Units: **µg/Kg** Analysis Date: **12/31/2015 06:43 PM**
Client ID: Run ID: **VMS9_151231A** SeqNo: **3644825** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1032	30	1000	0	103	75-125	0			
Ethylbenzene	1089	30	1000	0	109	75-125	0			
m,p-Xylene	2058	60	2000	0	103	80-125	0			
o-Xylene	972	30	1000	0	97.2	75-125	0			
Toluene	1050	30	1000	0	105	70-125	0			
Xylenes, Total	3030	90	3000	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	*947.5*	0	*1000*	0	*94.8*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1038*	0	*1000*	0	*104*	*70-130*	0			
Surr: Dibromofluoromethane	*951*	0	*1000*	0	*95.1*	*70-130*	0			
Surr: Toluene-d8	*1006*	0	*1000*	0	*101*	*70-130*	0			

MS Sample ID: **15121617-01A MS** Units: **µg/Kg** Analysis Date: **12/31/2015 11:23 PM**
Client ID: Run ID: **VMS7_151231A** SeqNo: **3645009** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1079	30	1000	0	108	75-125	0			
Ethylbenzene	947	30	1000	0	94.7	75-125	0			
m,p-Xylene	1958	60	2000	18.5	97	80-125	0			
o-Xylene	936.5	30	1000	0	93.6	75-125	0			
Toluene	941.5	30	1000	0	94.2	70-125	0			
Xylenes, Total	2894	90	3000	18	95.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	*901*	0	*1000*	0	*90.1*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1016*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*967.5*	0	*1000*	0	*96.8*	*70-130*	0			
Surr: Toluene-d8	*884*	0	*1000*	0	*88.4*	*70-130*	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80896** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **15121617-01A MSD** Units: **µg/Kg** Analysis Date: **12/31/2015 11:48 PM**
Client ID: Run ID: **VMS7_151231A** SeqNo: **3645010** Prep Date: **12/31/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1054	30	1000	0	105	75-125	1079	2.34	30	
Ethylbenzene	960	30	1000	0	96	75-125	947	1.36	30	
m,p-Xylene	1958	60	2000	18.5	97	80-125	1958	0.0255	30	
o-Xylene	929	30	1000	0	92.9	75-125	936.5	0.804	30	
Toluene	933.5	30	1000	0	93.4	70-125	941.5	0.853	30	
Xylenes, Total	2886	90	3000	18	95.6	75-125	2894	0.277	30	
Surr: 1,2-Dichloroethane-d4	*890.5*	0	*1000*	0	*89*	*70-130*	901	*1.17*	*30*	
Surr: 4-Bromofluorobenzene	*1015*	0	*1000*	0	*102*	*70-130*	1016	*0.148*	*30*	
Surr: Dibromofluoromethane	*984.5*	0	*1000*	0	*98.4*	*70-130*	967.5	*1.74*	*30*	
Surr: Toluene-d8	*910.5*	0	*1000*	0	*91*	*70-130*	884	*2.95*	*30*	

The following samples were analyzed in this batch: 15121616-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80934** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-80934-80934** Units: **s.u.** Analysis Date: **1/4/2016 02:15 PM**
Client ID: Run ID: **WETCHEM_160104E** SeqNo: **3645895** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.96	0	4	0	99	90-110	0			

DUP Sample ID: **15121616-01B DUP** Units: **s.u.** Analysis Date: **1/4/2016 02:15 PM**
Client ID: **RMV 54-28 SS1** Run ID: **WETCHEM_160104E** SeqNo: **3645903** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.91	0	0	0	0	0-0	7.86	0.634	20	

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80951** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **15121616-01C DUP** Units: **mmhos/cm @25°** Analysis Date: **1/5/2016 11:00 AM**
Client ID: **RMV 54-28 SS1** Run ID: **WETCHEM_160105F** SeqNo: **3647172** Prep Date: **1/5/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.27	0.050	0	0	0		2.47	8.44	50	

The following samples were analyzed in this batch: 15121616-01C

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **80998** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-80998-80998** Units: **mg/Kg** Analysis Date: **1/5/2016 04:00 PM**
Client ID: Run ID: **WETCHEM_160105O** SeqNo: **3647631** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0								

LCS Sample ID: **LCS-80998-80998** Units: **mg/Kg** Analysis Date: **1/5/2016 04:00 PM**
Client ID: Run ID: **WETCHEM_160105O** SeqNo: **3647630** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.69	1.0	5	0	93.8	80-120	0			

MS Sample ID: **15121596-05B MS** Units: **mg/Kg** Analysis Date: **1/5/2016 04:00 PM**
Client ID: Run ID: **WETCHEM_160105O** SeqNo: **3647620** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.406	0.99	4.95	0.1683	85.6	75-125	0			

MS Sample ID: **15121596-05B MSI** Units: **mg/Kg** Analysis Date: **1/5/2016 04:00 PM**
Client ID: Run ID: **WETCHEM_160105O** SeqNo: **3647622** Prep Date: **1/4/2016** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1409	100	1641	0.1683	85.8	75-125	0			

MSD Sample ID: **15121596-05B MSD** Units: **mg/Kg** Analysis Date: **1/5/2016 04:00 PM**
Client ID: Run ID: **WETCHEM_160105O** SeqNo: **3647621** Prep Date: **1/4/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.277	0.99	4.95	0.1683	83	75-125	4.406	2.96	20	

The following samples were analyzed in this batch: 15121616-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 15121616
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **R179391** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R179391** Units: **% of sample** Analysis Date: **12/31/2015 04:58 PM**
Client ID: Run ID: **MOIST_151231A** SeqNo: **3647094** 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-R179391** Units: **% of sample** Analysis Date: **12/31/2015 04:58 PM**
Client ID: Run ID: **MOIST_151231A** SeqNo: **3647092** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **15121582-02A DUP** Units: **% of sample** Analysis Date: **12/31/2015 04:58 PM**
Client ID: Run ID: **MOIST_151231A** SeqNo: **3647054** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.37	0.050	0	0	0		12.84	4.04	20	

DUP Sample ID: **15121594-06A DUP** Units: **% of sample** Analysis Date: **12/31/2015 04:58 PM**
Client ID: Run ID: **MOIST_151231A** SeqNo: **3647076** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	46.84	0.050	0	0	0		46.8	0.0854	20	

The following samples were analyzed in this batch: 15121616-01B

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

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER #	15121616				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				

RMV 54-28 Spill

PROJECT NAME	~~GM 31-1 Produced Water Spill~~	SAMPLER	Jessica Dilka
PROJECT No.		SITE ID	RMV 54-28 Spill
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy
SEND REPORT TO	Karolina Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun
ADDRESS		ADDRESS	1058 Co Rd 215
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachute CO 81635
PHONE		PHONE	970-683-2295
FAX		FAX	
E-MAIL	Karolina.blaney@wpxenergy.com tdobransky@olssonassociates.com	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com

DATE

TURNAROUND: 24 Hours

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO + GRO	BTEX	PAHs (see comments)	EC, SAR, pH	Table 910 anions	Table 910 metals
1	RMV 54-28 SS1	S	12/30/15	1400	3	8	x	X	X	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: 3.6°C

Please send copy data to tdobransky@olssonassociates.com

Table 910-1 list for anions, PAH's and metals

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		Jessica Dilka	12/30/15	1500
RECEIVED BY		Nichols	12-30-15	1500
RELINQUISHED BY			12-30-15	1500
RECEIVED BY		Kevin Wierenga	12/31/15	1000
RELINQUISHED BY				
RECEIVED BY				

ORIGIN ID:RLA (616) 288-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST ST
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 30DEC15
ACTWGT: 70.00 LB
CAD: 2284840/NET3670
DIMS: 24x15x15 IN

BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE
HOLLAND MI 49424
(616) 399-6070
INV
PO: PARACHUTE
REF: 123015-1
DEPT:

539J1/1308/3100

FedEx Express

REL# 3785346

XX HLMA

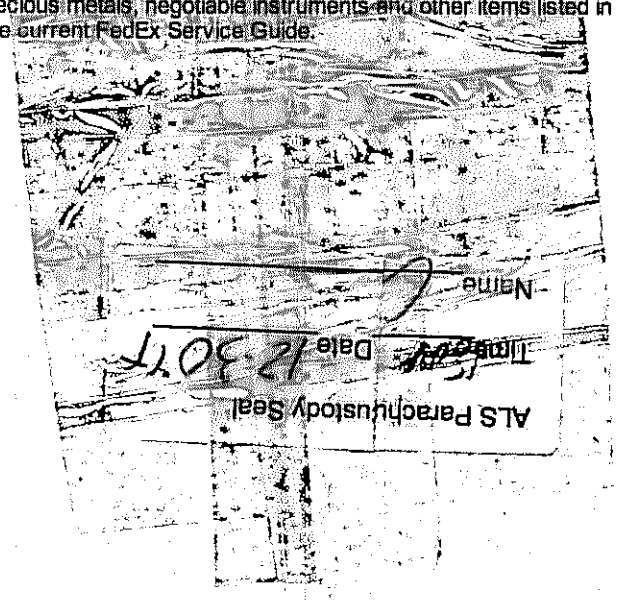
TRK# 0201 **7753 2154 1590**

THU - 31 DEC 10:30A
PRIORITY OVERNIGHT

49424
GRR
MI-US

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **31-Dec-15 10:00**

Work Order: **15121616** Received by: **KRW**

Checklist completed by Keith Wierenga 31-Dec-15 Reviewed by: Les Arnold 31-Dec-15

eSignature Date eSignature 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):	3.6/3.6 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	12/31/2015 10:59:00 AM		
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:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

24-Mar-2016

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **RMV 54-28 Spill** Work Order: **1603984**

Dear Karolina,

ALS Environmental received 1 sample on 17-Mar-2016 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 NELAP standard requirements and QC 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 11.

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

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 998501

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 24-Mar-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: **1603984**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1603984-01	RMV 54-28 Spill	Soil		3/16/2016 10:30	3/17/2016 09:30	☐

ALS Group USA, Corp

Date: 24-Mar-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
WorkOrder: **1603984**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not 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
n	Not offered for accreditation
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 PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

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

ALS Group USA, Corp

Date: *24-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Spill
Work Order: 1603984
Sample ID: RMV 54-28 Spill
Lab ID: 1603984-01
Collection Date: 3/16/2016 10:30 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 3/22/16	Analyst: **IT**
DRO (C10-C28)	**67**		**4.8**	**mg/Kg-dry**	1	3/23/2016 12:17 PM
Surr: 4-Terphenyl-d14	*79.2*		*39-133*	*%REC*	1	3/23/2016 12:17 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 3/18/16	Analyst: **IT**
GRO (C6-C10)	**18**		**3.2**	**mg/Kg-dry**	1	3/18/2016 10:44 PM
Surr: Toluene-d8	*100*		*50-150*	*%REC*	1	3/18/2016 10:44 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 3/18/16	Analyst: **LSY**
Benzene	ND		0.039	mg/Kg-dry	1	3/19/2016 06:05 AM
Surr: 1,2-Dichloroethane-d4	*99.5*		*70-130*	*%REC*	1	3/19/2016 06:05 AM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	3/19/2016 06:05 AM
Surr: Dibromofluoromethane	*93.6*		*70-130*	*%REC*	1	3/19/2016 06:05 AM
Surr: Toluene-d8	*95.1*		*70-130*	*%REC*	1	3/19/2016 06:05 AM
MOISTURE			**SW3550C**			Analyst: **ED**
Moisture	**13**		**0.050**	**% of sample**	1	3/21/2016 02:58 PM

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

Batch ID: **83782** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-83782-83782** Units: **mg/Kg** Analysis Date: **3/22/2016 06:15 PM**

Client ID: Run ID: **GC8_160322A** SeqNo: **3745337** Prep Date: **3/22/2016** 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								
Surr: 4-Terphenyl-d14	*1.689*	0	*2*	0	*84.5*	*39-133*	0			

LCS Sample ID: **DLCSS1-83782-83782** Units: **mg/Kg** Analysis Date: **3/22/2016 06:45 PM**

Client ID: Run ID: **GC8_160322A** SeqNo: **3745338** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	177.4	5.0	200	0	88.7	61-109	0			
Surr: 4-Terphenyl-d14	*1.571*	0	*2*	0	*78.6*	*39-133*	0			

MS Sample ID: **16031077-01A MS** Units: **mg/Kg** Analysis Date: **3/22/2016 07:16 PM**

Client ID: Run ID: **GC8_160322A** SeqNo: **3745339** Prep Date: **3/22/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	10170	160	163.6	10140	19.6	48-110	0			SO
Surr: 4-Terphenyl-d14	*4.202*	0	*1.636*	0	*257*	*39-133*	0			*S*

MSD Sample ID: **16031077-01A MSD** Units: **mg/Kg** Analysis Date: **3/22/2016 07:46 PM**

Client ID: Run ID: **GC8_160322A** SeqNo: **3745340** Prep Date: **3/22/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	10190	170	165.4	10140	27.4	48-110	10170	0.129	30	SO
Surr: 4-Terphenyl-d14	*4.207*	0	*1.654*	0	*254*	*39-133*	4.202	*0.114*	*30*	*S*

The following samples were analyzed in this batch: 1603984-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603984
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **83693** Instrument ID **GC10** Method: **SW8015D**

MBLK Sample ID: **MBLK-83693-83693** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 05:21 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741306** Prep Date: **3/18/2016** 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	*5204*	0	*5000*	0	*104*	*50-150*	0			

LCS Sample ID: **LCS-83693-83693** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 03:38 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741304** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515300	2,500	500000	0	103	70-130	0			
Surr: Toluene-d8	*5002*	0	*5000*	0	*100*	*50-150*	0			

MS Sample ID: **1603961-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 11:09 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741319** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	701900	3,100	623600	0	113	70-130	0			
Surr: Toluene-d8	*6149*	0	*6236*	0	*98.6*	*50-150*	0			

MSD Sample ID: **1603961-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 11:34 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741320** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	709900	3,100	623600	0	114	70-130	701900	1.14	30	
Surr: Toluene-d8	*6330*	0	*6236*	0	*102*	*50-150*	6149	*2.9*	*30*	

The following samples were analyzed in this batch: 1603984-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603984
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **83692** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **MBLK-83692-83692** Units: **µg/Kg-dry** Analysis Date: **3/21/2016 12:27 PM**
Client ID: Run ID: **VMS6_160321A** SeqNo: **3741906** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Surr: 1,2-Dichloroethane-d4	*1028*	0	*1000*	0	*103*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*934*	0	*1000*	0	*93.4*	*70-130*	0			
Surr: Dibromofluoromethane	*945*	0	*1000*	0	*94.5*	*70-130*	0			
Surr: Toluene-d8	*1044*	0	*1000*	0	*104*	*70-130*	0			

LCS Sample ID: **LCS-83692-83692** Units: **µg/Kg-dry** Analysis Date: **3/21/2016 10:46 AM**
Client ID: Run ID: **VMS6_160321A** SeqNo: **3741905** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1002	30	1000	0	100	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1009*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*965.5*	0	*1000*	0	*96.6*	*70-130*	0			
Surr: Dibromofluoromethane	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1072*	0	*1000*	0	*107*	*70-130*	0			

MS Sample ID: **1603961-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/19/2016 07:34 AM**
Client ID: Run ID: **VMS5_160318B** SeqNo: **3741500** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1128	30	1000	0	113	75-125	0			
Surr: 1,2-Dichloroethane-d4	*977*	0	*1000*	0	*97.7*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*993*	0	*1000*	0	*99.3*	*70-130*	0			
Surr: Dibromofluoromethane	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	0			

MSD Sample ID: **1603961-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/19/2016 08:00 AM**
Client ID: Run ID: **VMS5_160318B** SeqNo: **3741502** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1118	30	1000	0	112	75-125	1128	0.801	30	
Surr: 1,2-Dichloroethane-d4	*997.5*	0	*1000*	0	*99.8*	*70-130*	977	*2.08*	*30*	
Surr: 4-Bromofluorobenzene	*988*	0	*1000*	0	*98.8*	*70-130*	993	*0.505*	*30*	
Surr: Dibromofluoromethane	*980*	0	*1000*	0	*98*	*70-130*	1005	*2.52*	*30*	
Surr: Toluene-d8	*1032*	0	*1000*	0	*103*	*70-130*	1010	*2.15*	*30*	

The following samples were analyzed in this batch: 1603984-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603984
Project: RMV 54-28 Spill

QC BATCH REPORT

Batch ID: **R183921** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R183921** Units: **% of sample** Analysis Date: **3/21/2016 02:58 PM**
Client ID: Run ID: **MOIST_160321B** SeqNo: **3744030** 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-R183921** Units: **% of sample** Analysis Date: **3/21/2016 02:58 PM**
Client ID: Run ID: **MOIST_160321B** SeqNo: **3744029** 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: **16031037-23A DUP** Units: **% of sample** Analysis Date: **3/21/2016 02:58 PM**
Client ID: Run ID: **MOIST_160321B** SeqNo: **3744010** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.95	0.050	0	0	0		14.5	3.87	20	

DUP Sample ID: **16031109-07C DUP** Units: **% of sample** Analysis Date: **3/21/2016 02:58 PM**
Client ID: Run ID: **MOIST_160321B** SeqNo: **3744021** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	28.17	0.050	0	0	0		25.56	9.72	20	

The following samples were analyzed in this batch: 1603984-01A

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

ALS Laboratory Group
HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER #	1603984

SAMPLER		DATE	3/16/2016	PAGE	1 of 1
PROJECT NAME	RMV 54-28 spill	SITE ID	RMV 54-28 spill	TURNAROUND	5 days
PROJECT No.		EDD FORMAT		DISPOSAL	By Lab or Return to Client
		PURCHASE ORDER			
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy		
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun		
ADDRESS		ADDRESS	1058 Co Rd 215		
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635		
PHONE		PHONE	970-683-2295		
FAX		FAX			
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO + DRO	Benzene
1	RMV 54-28 spill	S	3/16/2016	10:30	1	8	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)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Karolina Blaney	Karolina Blaney	3/16/2016	16:00
RECEIVED BY	[signature]	[signature]	3-16-16	1600
RELINQUISHED BY	[signature]	[signature]	3-16-16	1630
RECEIVED BY	[signature]	Keith Wierenga	3/17/16	0930
RELINQUISHED BY				
RECEIVED BY				

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

ORIGIN ID:RILA (616) 298-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST. ST
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 16MAR16
ACTWGT: 55.00 LB
CAD: 2264840/INET3730
DIMS: 14x26x15 IN

BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424
(616) 399-6070 REF: 031616-1
INV:
PO: PARACHUTE DEPT:

540J1/CF34/727F

FedEx Express

E

REL# 3785346

THU - 17 MAR 10:30A
PRIORITY OVERNIGHT

2 of 2
MPS# 0263 **7758 9422 9843**
Mstr# 7758 9423 0402 0201

49424
MI-US **GRR**

XX HLMA

After printing this label:
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1.0°C

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL
Date: 3-16 Time:
Name:
Company:

Seal Broken By:
Date:

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **17-Mar-16 09:30**

Work Order: **1603984** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 17-Mar-16 (Date) Reviewed by: Chad Whelton (eSignature) 18-Mar-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):	1.0/1.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/17/2016 4:36:56 PM		
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:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

24-Mar-2016

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **RMV 54-28 Landfarm** Work Order: **1603981**

Dear Karolina,

ALS Environmental received 1 sample on 17-Mar-2016 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 NELAP standard requirements and QC 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.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 998501

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 24-Mar-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Landfarm
Work Order: **1603981**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1603981-01	RMV 54-28 Landfarm	Soil		3/16/2016 10:50	3/17/2016 09:30	☐

ALS Group USA, Corp

Date: 24-Mar-16

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not 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
n	Not offered for accreditation
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 PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *24-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Landfarm
Work Order: 1603981
Sample ID: RMV 54-28 Landfarm
Lab ID: 1603981-01
Collection Date: 3/16/2016 10:50 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep: SW3541 / 3/22/16	Analyst: **IT**
DRO (C10-C28)	**65**		**4.9**	**mg/Kg-dry**	1	3/22/2016 11:47 PM
Surr: 4-Terphenyl-d14	*86.6*		*39-133*	*%REC*	1	3/22/2016 11:47 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**		Prep: SW5035 / 3/18/16	Analyst: **IT**
GRO (C6-C10)	**130**		**3.5**	**mg/Kg-dry**	1	3/18/2016 10:19 PM
Surr: Toluene-d8	*98.6*		*50-150*	*%REC*	1	3/18/2016 10:19 PM
MERCURY BY CVAA			**SW7471B**		Prep: SW7471 / 3/22/16	Analyst: **LR**
Mercury	**0.019**		**0.016**	**mg/Kg-dry**	1	3/22/2016 08:42 PM
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 3/22/16	Analyst: **BL**
Arsenic	**9.2**		**0.46**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Barium	**180**		**0.46**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Cadmium	ND		0.92	mg/Kg-dry	1	3/22/2016 08:14 PM
Chromium	**14**		**0.46**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Copper	**13**		**0.92**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Lead	**9.9**		**0.46**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Nickel	**18**		**0.46**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
Selenium	ND		0.92	mg/Kg-dry	1	3/23/2016 10:07 AM
Silver	ND		0.46	mg/Kg-dry	1	3/22/2016 08:14 PM
Zinc	**53**		**0.92**	**mg/Kg-dry**	1	3/22/2016 08:14 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 3/20/16	Analyst: **BL**
Calcium	**77**		**20**	**mg/L**	40	3/21/2016 12:23 PM
Magnesium	**40**		**8.0**	**mg/L**	40	3/21/2016 12:23 PM
Sodium	**170**		**8.0**	**mg/L**	40	3/21/2016 12:23 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 3/20/16	Analyst: **BL**
Sodium Adsorption Ratio	**3.9**		**0.010**	**none**	1	3/21/2016
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3541 / 3/22/16	Analyst: **RM**
Acenaphthene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Anthracene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Benzo(a)anthracene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Benzo(a)pyrene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Benzo(b)fluoranthene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Benzo(k)fluoranthene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Chrysene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Dibenzo(a,h)anthracene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Fluoranthene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM

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

ALS Group USA, Corp

Date: *24-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Landfarm
Work Order: 1603981
Sample ID: RMV 54-28 Landfarm
Lab ID: 1603981-01
Collection Date: 3/16/2016 10:50 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	**0.0086**		**0.0079**	**mg/Kg-dry**	1	3/23/2016 01:17 AM
Indeno(1,2,3-cd)pyrene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Naphthalene	**0.042**		**0.0079**	**mg/Kg-dry**	1	3/23/2016 01:17 AM
Pyrene	ND		0.0079	mg/Kg-dry	1	3/23/2016 01:17 AM
Surr: 2-Fluorobiphenyl	*96.2*		*12-100*	*%REC*	1	3/23/2016 01:17 AM
Surr: 4-Terphenyl-d14	*87.4*		*25-137*	*%REC*	1	3/23/2016 01:17 AM
Surr: Nitrobenzene-d5	*82.7*		*37-107*	*%REC*	1	3/23/2016 01:17 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep: SW5035 / 3/18/16	Analyst: **LSY**
Benzene	ND		0.041	mg/Kg-dry	1	3/19/2016 11:14 AM
Ethylbenzene	**0.045**		**0.041**	**mg/Kg-dry**	1	3/19/2016 11:14 AM
m,p-Xylene	**1.1**		**0.083**	**mg/Kg-dry**	1	3/19/2016 11:14 AM
o-Xylene	**0.076**		**0.041**	**mg/Kg-dry**	1	3/19/2016 11:14 AM
Toluene	ND		0.041	mg/Kg-dry	1	3/19/2016 11:14 AM
Xylenes, Total	**1.1**		**0.12**	**mg/Kg-dry**	1	3/19/2016 11:14 AM
Surr: 1,2-Dichloroethane-d4	*100*		*70-130*	*%REC*	1	3/19/2016 11:14 AM
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	1	3/19/2016 11:14 AM
Surr: Dibromofluoromethane	*83.2*		*70-130*	*%REC*	1	3/19/2016 11:14 AM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	3/19/2016 11:14 AM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 3/20/16	Analyst: **JB**
Electrical Conductivity @ Saturation	**1.7**		**0.050**	**mmhos/cm @2**	10	3/21/2016 02:30 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**14**		**0.59**	**mg/Kg-dry**	1	3/23/2016 09:30 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep: SW3060A / 3/21/16	Analyst: **TVD**
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	3/22/2016 11:28 AM
MOISTURE			**SW3550C**			Analyst: **ED**
Moisture	**16**		**0.050**	**% of sample**	1	3/18/2016 05:19 PM
PH			**SW9045D**		Prep: EXTRACT / 3/18/16	Analyst: **JB**
pH	**8.1**			**s.u.**	1	3/18/2016 11:00 AM

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

ALS Group USA, Corp

Date: 24-Mar-16

Client: WPX Energy Rocky Mountain, LLC

QC BATCH REPORT

Work Order: 1603981

Project: RMV 54-28 Landfarm

Batch ID: **83782** Instrument ID **GC8** Method: **SW8015M**

MBLK	Sample ID: **DBLKS1-83782-83782**			Units: **mg/Kg**			Analysis Date: **3/22/2016 06:15 PM**			
Client ID:	Run ID: **GC8_160322A**			SeqNo: **3745337**			Prep Date: **3/22/2016**		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								
Surr: 4-Terphenyl-d14	*1.689*	0	*2*	0	*84.5*	*39-133*	0			

LCS	Sample ID: **DLCSS1-83782-83782**			Units: **mg/Kg**			Analysis Date: **3/22/2016 06:45 PM**			
Client ID:	Run ID: **GC8_160322A**			SeqNo: **3745338**			Prep Date: **3/22/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	177.4	5.0	200	0	88.7	61-109	0			
Surr: 4-Terphenyl-d14	*1.571*	0	*2*	0	*78.6*	*39-133*	0			

MS	Sample ID: **16031077-01A MS**			Units: **mg/Kg**			Analysis Date: **3/22/2016 07:16 PM**			
Client ID:	Run ID: **GC8_160322A**			SeqNo: **3745339**			Prep Date: **3/22/2016**		DF: **10**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	10170	160	163.6	10140	19.6	48-110	0			SO
Surr: 4-Terphenyl-d14	*4.202*	0	*1.636*	0	*257*	*39-133*	0			*S*

MSD	Sample ID: **16031077-01A MSD**			Units: **mg/Kg**			Analysis Date: **3/22/2016 07:46 PM**			
Client ID:	Run ID: **GC8_160322A**			SeqNo: **3745340**			Prep Date: **3/22/2016**		DF: **10**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	10190	170	165.4	10140	27.4	48-110	10170	0.129	30	SO
Surr: 4-Terphenyl-d14	*4.207*	0	*1.654*	0	*254*	*39-133*	4.202	*0.114*	*30*	*S*

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83693** Instrument ID **GC10** Method: **SW8015D**

MBLK Sample ID: **MBLK-83693-83693** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 05:21 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741306** Prep Date: **3/18/2016** 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	*5204*	0	*5000*	0	*104*	*50-150*	0			

LCS Sample ID: **LCS-83693-83693** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 03:38 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741304** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515300	2,500	500000	0	103	70-130	0			
Surr: Toluene-d8	*5002*	0	*5000*	0	*100*	*50-150*	0			

MS Sample ID: **1603961-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 11:09 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741319** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	701900	3,100	623600	0	113	70-130	0			
Surr: Toluene-d8	*6149*	0	*6236*	0	*98.6*	*50-150*	0			

MSD Sample ID: **1603961-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/18/2016 11:34 PM**
Client ID: Run ID: **GC10_160318A** SeqNo: **3741320** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	709900	3,100	623600	0	114	70-130	701900	1.14	30	
Surr: Toluene-d8	*6330*	0	*6236*	0	*102*	*50-150*	6149	*2.9*	*30*	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83830** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-83830-83830** Units: **mg/Kg** Analysis Date: **3/22/2016 08:35 PM**
Client ID: Run ID: **HG1_160322A** SeqNo: **3744621** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-83830-83830** Units: **mg/Kg** Analysis Date: **3/22/2016 08:38 PM**
Client ID: Run ID: **HG1_160322A** SeqNo: **3744622** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1717	0.020	0.1665	0	103	80-120	0			

MS Sample ID: **1603981-01AMS** Units: **mg/Kg** Analysis Date: **3/22/2016 08:44 PM**
Client ID: **RMV 54-28 Landfarm** Run ID: **HG1_160322A** SeqNo: **3744625** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1326	0.013	0.1117	0.01595	104	75-125	0			

MSD Sample ID: **1603981-01AMSD** Units: **mg/Kg** Analysis Date: **3/22/2016 08:46 PM**
Client ID: **RMV 54-28 Landfarm** Run ID: **HG1_160322A** SeqNo: **3744626** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1356	0.014	0.1134	0.01595	106	75-125	0.1326	2.31	35	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83665** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP Sample ID: **1603775-01ADUP** Units: **none** Analysis Date: **3/21/2016**
Client ID: Run ID: **SAR_160321A** SeqNo: **3741765** Prep Date: **3/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.927	0.010	0	0	0		9.031	9.45	50	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83809** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-83809-83809** Units: **mg/Kg** Analysis Date: **3/22/2016 05:33 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744900** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.01971	0.25								J
Copper	0.4034	0.50								J
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								

MBLK Sample ID: **MBLK-83809-83809** Units: **mg/Kg** Analysis Date: **3/23/2016 09:28 AM**
Client ID: Run ID: **ICP2_160323A** SeqNo: **3745532** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.2181	0.50								J

LCS Sample ID: **LCS-83809-83809** Units: **mg/Kg** Analysis Date: **3/22/2016 05:39 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744901** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.181	0.25	5	0	104	80-120	0			
Barium	5.14	0.25	5	0	103	80-120	0			
Cadmium	5.073	0.50	5	0	101	80-120	0			
Chromium	5.511	0.25	5	0	110	80-120	0			
Copper	5.405	0.50	5	0	108	80-120	0			
Lead	5.149	0.25	5	0	103	80-120	0			
Nickel	5.036	0.25	5	0	101	80-120	0			
Selenium	5.207	0.50	5	0	104	80-120	0			
Silver	5.093	0.25	5	0	102	80-120	0			

LCS Sample ID: **LCS-83809-83809** Units: **mg/Kg** Analysis Date: **3/23/2016 09:33 AM**
Client ID: Run ID: **ICP2_160323A** SeqNo: **3745533** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	5.035	0.50	5	0	101	80-120	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83809** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **16031095-01AMS** Units: **mg/Kg** Analysis Date: **3/22/2016 06:14 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744907** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.085	0.35	7.072	1.502	107	75-125	0			
Barium	32.42	0.35	7.072	22.21	144	75-125	0			S
Cadmium	7.292	0.71	7.072	0.1065	102	75-125	0			
Chromium	10.52	0.35	7.072	1.757	124	75-125	0			
Copper	10.53	0.71	7.072	2.413	115	75-125	0			
Lead	14.12	0.35	7.072	7.355	95.6	75-125	0			
Nickel	9.01	0.35	7.072	1.704	103	75-125	0			
Selenium	7.569	0.71	7.072	0.3023	103	75-125	0			
Silver	7.21	0.35	7.072	0.02756	102	75-125	0			
Zinc	25.48	0.71	7.072	11.87	192	75-125	0			S

MSD Sample ID: **16031095-01AMSD** Units: **mg/Kg** Analysis Date: **3/22/2016 06:20 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744908** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.628	0.35	7.092	1.502	115	75-125	9.085	5.81	20	
Barium	32.58	0.35	7.092	22.21	146	75-125	32.42	0.494	20	S
Cadmium	7.52	0.71	7.092	0.1065	105	75-125	7.292	3.08	20	
Chromium	10.32	0.35	7.092	1.757	121	75-125	10.52	1.91	20	
Copper	10.94	0.71	7.092	2.413	120	75-125	10.53	3.83	20	
Lead	14.32	0.35	7.092	7.355	98.2	75-125	14.12	1.42	20	
Nickel	9.506	0.35	7.092	1.704	110	75-125	9.01	5.36	20	
Selenium	8.032	0.71	7.092	0.3023	109	75-125	7.569	5.93	20	
Silver	7.505	0.35	7.092	0.02756	105	75-125	7.21	4.01	20	
Zinc	27.1	0.71	7.092	11.87	215	75-125	25.48	6.19	20	S

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83781** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-83781-83781** Units: **µg/Kg** Analysis Date: **3/22/2016 07:59 PM**
Client ID: Run ID: **SVMS8_160322A** SeqNo: **3746201** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	*1144*	0	*1667*	0	*68.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1571*	0	*1667*	0	*94.3*	*25-137*	0			
Surr: Nitrobenzene-d5	*1315*	0	*1667*	0	*78.9*	*37-107*	0			

LCS Sample ID: **SLCSS1-83781-83781** Units: **µg/Kg** Analysis Date: **3/22/2016 08:20 PM**
Client ID: Run ID: **SVMS8_160322A** SeqNo: **3746202** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	494.7	6.7	666.7	0	74.2	45-110	0			
Anthracene	587.3	6.7	666.7	0	88.1	55-105	0			
Benzo(a)anthracene	600	6.7	666.7	0	90	50-110	0			
Benzo(a)pyrene	612.7	6.7	666.7	0	91.9	50-110	0			
Benzo(b)fluoranthene	613.3	6.7	666.7	0	92	45-115	0			
Benzo(k)fluoranthene	616.7	6.7	666.7	0	92.5	45-115	0			
Chrysene	595.7	6.7	666.7	0	89.3	55-110	0			
Dibenzo(a,h)anthracene	559.3	6.7	666.7	0	83.9	40-125	0			
Fluoranthene	634.3	6.7	666.7	0	95.1	55-115	0			
Fluorene	485.7	6.7	666.7	0	72.8	50-110	0			
Indeno(1,2,3-cd)pyrene	580.3	6.7	666.7	0	87	40-120	0			
Naphthalene	530.7	6.7	666.7	0	79.6	40-105	0			
Pyrene	605.7	6.7	666.7	0	90.8	45-125	0			
Surr: 2-Fluorobiphenyl	*1145*	0	*1667*	0	*68.7*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1484*	0	*1667*	0	*89*	*25-137*	0			
Surr: Nitrobenzene-d5	*1393*	0	*1667*	0	*83.6*	*37-107*	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83781** Instrument ID **SVMS8** Method: **SW846 8270D**

MS Sample ID: **1603960-01A MS** Units: **µg/Kg** Analysis Date: **3/22/2016 10:32 PM**
Client ID: Run ID: **SVMS8_160322A** SeqNo: **3746203** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	512.1	6.6	659.1	0	77.7	45-110	0			
Anthracene	606.3	6.6	659.1	0	92	55-105	0			
Benzo(a)anthracene	580.3	6.6	659.1	0	88	50-110	0			
Benzo(a)pyrene	593.5	6.6	659.1	0	90	50-110	0			
Benzo(b)fluoranthene	577.7	6.6	659.1	0	87.6	45-115	0			
Benzo(k)fluoranthene	573	6.6	659.1	0	86.9	45-115	0			
Chrysene	572.7	6.6	659.1	0	86.9	55-110	0			
Dibenzo(a,h)anthracene	489.7	6.6	659.1	0	74.3	40-125	0			
Fluoranthene	630	6.6	659.1	4.333	94.9	55-115	0			
Fluorene	530.9	6.6	659.1	0	80.5	50-110	0			
Indeno(1,2,3-cd)pyrene	483.4	6.6	659.1	0	73.3	40-120	0			
Naphthalene	533.5	6.6	659.1	0	80.9	40-105	0			
Pyrene	570.7	6.6	659.1	4.333	85.9	45-125	0			
Surr: 2-Fluorobiphenyl	*1180*	0	*1648*	0	*71.6*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1338*	0	*1648*	0	*81.2*	*25-137*	0			
Surr: Nitrobenzene-d5	*1396*	0	*1648*	0	*84.7*	*37-107*	0			

MSD Sample ID: **1603960-01A MSD** Units: **µg/Kg** Analysis Date: **3/22/2016 10:53 PM**
Client ID: Run ID: **SVMS8_160322A** SeqNo: **3746204** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	529.3	6.5	649.5	0	81.5	45-110	512.1	3.31	30	
Anthracene	590.4	6.5	649.5	0	90.9	55-105	606.3	2.67	30	
Benzo(a)anthracene	583.5	6.5	649.5	0	89.8	50-110	580.3	0.558	30	
Benzo(a)pyrene	592.3	6.5	649.5	0	91.2	50-110	593.5	0.196	30	
Benzo(b)fluoranthene	574.1	6.5	649.5	0	88.4	45-115	577.7	0.613	30	
Benzo(k)fluoranthene	573.8	6.5	649.5	0	88.3	45-115	573	0.132	30	
Chrysene	575.1	6.5	649.5	0	88.5	55-110	572.7	0.415	30	
Dibenzo(a,h)anthracene	550.1	6.5	649.5	0	84.7	40-125	489.7	11.6	30	
Fluoranthene	622.8	6.5	649.5	4.333	95.2	55-115	630	1.15	30	
Fluorene	525.1	6.5	649.5	0	80.8	50-110	530.9	1.09	30	
Indeno(1,2,3-cd)pyrene	580.9	6.5	649.5	0	89.4	40-120	483.4	18.3	30	
Naphthalene	490	6.5	649.5	0	75.4	40-105	533.5	8.5	30	
Pyrene	563.7	6.5	649.5	4.333	86.1	45-125	570.7	1.23	30	
Surr: 2-Fluorobiphenyl	*1139*	0	*1624*	0	*70.1*	*12-100*	1180	*3.55*	*40*	
Surr: 4-Terphenyl-d14	*1347*	0	*1624*	0	*83*	*25-137*	1338	*0.728*	*40*	
Surr: Nitrobenzene-d5	*1249*	0	*1624*	0	*76.9*	*37-107*	1396	*11.1*	*40*	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83692** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **MBLK-83692-83692** Units: **µg/Kg-dry** Analysis Date: **3/21/2016 12:27 PM**
Client ID: Run ID: **VMS6_160321A** SeqNo: **3741906** Prep Date: **3/18/2016** 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	*1028*	0	*1000*	0	*103*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*934*	0	*1000*	0	*93.4*	*70-130*	0			
Surr: Dibromofluoromethane	*945*	0	*1000*	0	*94.5*	*70-130*	0			
Surr: Toluene-d8	*1044*	0	*1000*	0	*104*	*70-130*	0			

LCS Sample ID: **LCS-83692-83692** Units: **µg/Kg-dry** Analysis Date: **3/21/2016 10:46 AM**
Client ID: Run ID: **VMS6_160321A** SeqNo: **3741905** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1002	30	1000	0	100	75-125	0			
Ethylbenzene	1148	30	1000	0	115	75-125	0			
m,p-Xylene	2299	60	2000	0	115	80-125	0			
o-Xylene	1158	30	1000	0	116	75-125	0			
Toluene	1130	30	1000	0	113	70-125	0			
Xylenes, Total	3456	90	3000	0	115	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1009*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*965.5*	0	*1000*	0	*96.6*	*70-130*	0			
Surr: Dibromofluoromethane	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1072*	0	*1000*	0	*107*	*70-130*	0			

MS Sample ID: **1603961-01A MS** Units: **µg/Kg-dry** Analysis Date: **3/19/2016 07:34 AM**
Client ID: Run ID: **VMS5_160318B** SeqNo: **3741500** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1128	30	1000	0	113	75-125	0			
Ethylbenzene	1054	30	1000	0	105	75-125	0			
m,p-Xylene	2124	60	2000	0	106	80-125	0			
o-Xylene	1020	30	1000	0	102	75-125	0			
Toluene	1128	30	1000	0	113	70-125	0			
Xylenes, Total	3144	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	*977*	0	*1000*	0	*97.7*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*993*	0	*1000*	0	*99.3*	*70-130*	0			
Surr: Dibromofluoromethane	*1005*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	0			

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83692** Instrument ID **VMS6** Method: **SW8260B**

MSD Sample ID: **1603961-01A MSD** Units: **µg/Kg-dry** Analysis Date: **3/19/2016 08:00 AM**
Client ID: Run ID: **VMS5_160318B** SeqNo: **3741502** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1118	30	1000	0	112	75-125	1128	0.801	30	
Ethylbenzene	1092	30	1000	0	109	75-125	1054	3.45	30	
m,p-Xylene	2184	60	2000	0	109	80-125	2124	2.81	30	
o-Xylene	1040	30	1000	0	104	75-125	1020	1.99	30	
Toluene	1145	30	1000	0	114	70-125	1128	1.54	30	
Xylenes, Total	3224	90	3000	0	107	75-125	3144	2.54	30	
Surr: 1,2-Dichloroethane-d4	*997.5*	0	*1000*	0	*99.8*	*70-130*	977	*2.08*	*30*	
Surr: 4-Bromofluorobenzene	*988*	0	*1000*	0	*98.8*	*70-130*	993	*0.505*	*30*	
Surr: Dibromofluoromethane	*980*	0	*1000*	0	*98*	*70-130*	1005	*2.52*	*30*	
Surr: Toluene-d8	*1032*	0	*1000*	0	*103*	*70-130*	1010	*2.15*	*30*	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83665** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP	Sample ID: **1603775-01A DUP**				Units: **mmhos/cm @25°**		Analysis Date: **3/21/2016 02:30 PM**			
Client ID:		Run ID: **WETCHEM_160321M**			SeqNo: **3742084**		Prep Date: **3/20/2016**		DF: **10**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	9.12	0.050	0	0	0		7.61	18.1	50	

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83691** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: **LCS-83691-83691**				Units: **s.u.**			Analysis Date: **3/18/2016 11:00 AM**			
Client ID:		Run ID: **WETCHEM_160318E**			SeqNo: **3739623**			Prep Date: **3/18/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	4	0	4	0	100	90-110	0				

DUP	Sample ID: **1603960-01A DUP**				Units: **s.u.**			Analysis Date: **3/18/2016 11:00 AM**			
Client ID:		Run ID: **WETCHEM_160318E**			SeqNo: **3739625**			Prep Date: **3/18/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.81	0	0	0	0	0-0	7.92	1.4	20		

DUP	Sample ID: **1603976-01B DUP**				Units: **s.u.**			Analysis Date: **3/18/2016 11:00 AM**			
Client ID:		Run ID: **WETCHEM_160318E**			SeqNo: **3739630**			Prep Date: **3/18/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.96	0	0	0	0	0-0	7.8	2.03	20		

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **83755** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-83755-83755** Units: **mg/Kg** Analysis Date: **3/22/2016 11:28 AM**
Client ID: Run ID: **WETCHEM_160322H** SeqNo: **3743793** Prep Date: **3/21/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	1.0								

LCS Sample ID: **LCS-83755-83755** Units: **mg/Kg** Analysis Date: **3/22/2016 11:28 AM**
Client ID: Run ID: **WETCHEM_160322H** SeqNo: **3743794** Prep Date: **3/21/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.15	1.0	5	0	83	80-120	0			

MS Sample ID: **1603706-08BMS** Units: **mg/Kg** Analysis Date: **3/22/2016 11:28 AM**
Client ID: Run ID: **WETCHEM_160322H** SeqNo: **3743805** Prep Date: **3/21/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.607	0.93	4.673	0	34.4	75-125	0			S

MS Sample ID: **1603706-08BMSI** Units: **mg/Kg** Analysis Date: **3/22/2016 11:28 AM**
Client ID: Run ID: **WETCHEM_160322H** SeqNo: **3743807** Prep Date: **3/21/2016** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2451	97	2812	0	87.2	75-125	0			

MSD Sample ID: **1603706-08BMSD** Units: **mg/Kg** Analysis Date: **3/22/2016 11:28 AM**
Client ID: Run ID: **WETCHEM_160322H** SeqNo: **3743806** Prep Date: **3/21/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.413	0.96	4.808	0	29.4	75-125	1.607	12.8	20	S

The following samples were analyzed in this batch: 1603981-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603981
Project: RMV 54-28 Landfarm

QC BATCH REPORT

Batch ID: **R183766** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R183766** Units: **% of sample** Analysis Date: **3/18/2016 05:19 PM**
Client ID: Run ID: **MOIST_160318C** SeqNo: **3740479** 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-R183766** Units: **% of sample** Analysis Date: **3/18/2016 05:19 PM**
Client ID: Run ID: **MOIST_160318C** SeqNo: **3740478** 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: **1603977-09B DUP** Units: **% of sample** Analysis Date: **3/18/2016 05:19 PM**
Client ID: Run ID: **MOIST_160318C** SeqNo: **3740463** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.2	0.050	0	0	0		18.53	1.8	20	

DUP Sample ID: **1603978-03A DUP** Units: **% of sample** Analysis Date: **3/18/2016 05:19 PM**
Client ID: Run ID: **MOIST_160318C** SeqNo: **3740472** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.4	0.050	0	0	0		18.35	0.272	20	

The following samples were analyzed in this batch: 1603981-01A

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

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER #	1603981				
SAMPLER		DATE	3/16/2016	PAGE	1 of 1
SITE ID	RMV 54-28 landfarm	TURNAROUND	5 days	DISPOSAL	By Lab or Return to Client
EDD FORMAT					
PURCHASE ORDER					

PROJECT NAME	RMV 54-28 landfarm	BILL TO COMPANY	WPX Energy
PROJECT No.		INVOICE ATTN TO	Karolina Blaney; Leo Braun
COMPANY NAME	WPX Energy	ADDRESS	1058 Co Rd 215
SEND REPORT TO	Blaney	CITY / STATE / ZIP	Parachure CO 81635
ADDRESS		PHONE	970-683-2295
CITY / STATE / ZIP		FAX	
PHONE		E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com
FAX			
E-MAIL	Karolina.blaney@wpxenergy.com;		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	910-1
1	RMV 54-28 landfarm	S	3/16/2016	10:50	1	8	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

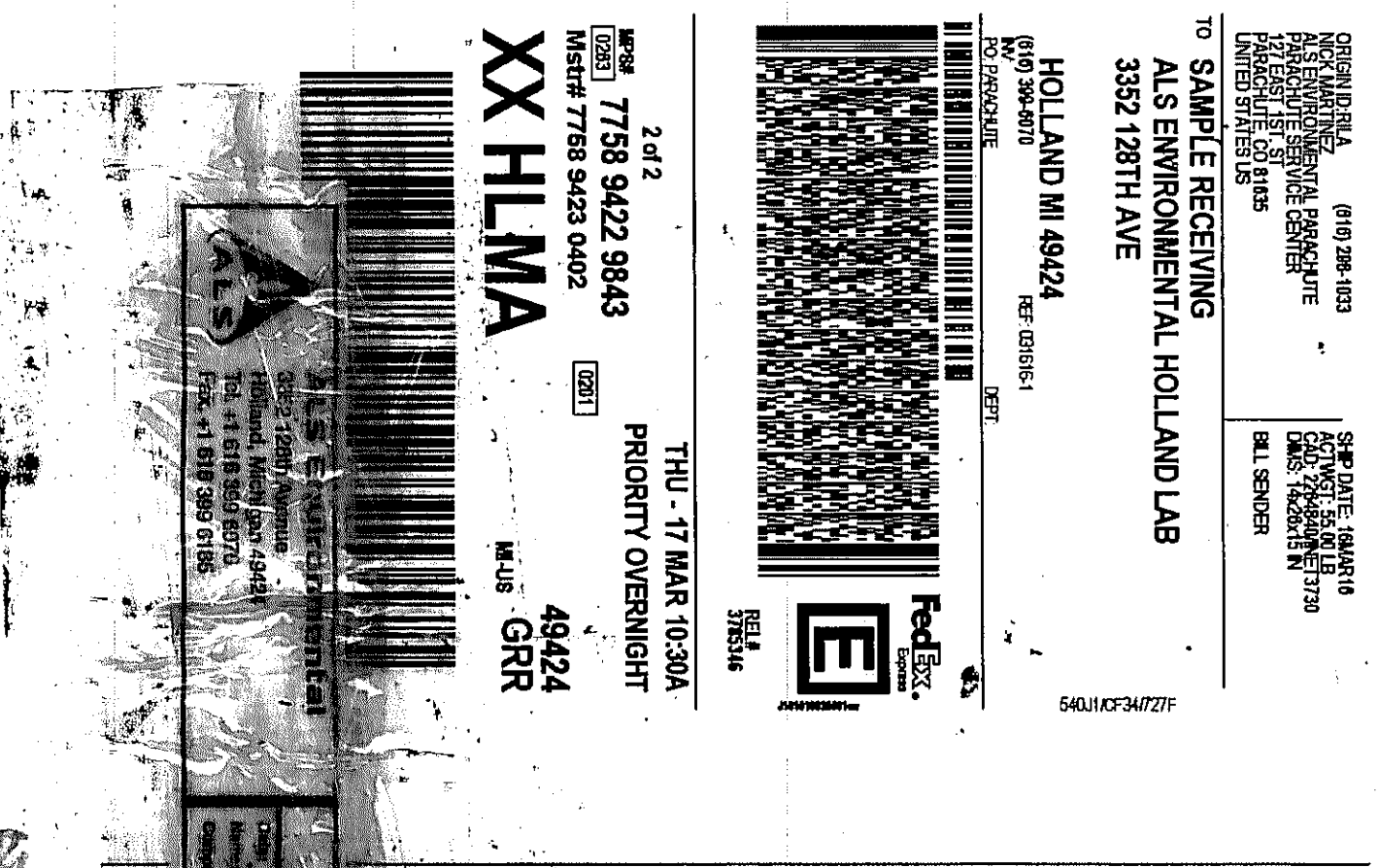
For metals or anions, please detail analytes below.

Comments: 1.0°C

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	3/16/2016	16:00
RECEIVED BY			3-16-16	1600
RELINQUISHED BY			3-16-16	1630
RECEIVED BY		Kim Wiersema	3/17/16	0930
RELINQUISHED BY				
RECEIVED BY				



After p
1. Use this page to print your label to your laser or inkjet printer.
2. Fold ng the horizontal line.
3. Plac outh and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warnin lled original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result i harges, along with the cancellation of your FedEx account number.
Use of tes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinfo declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found i Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales vofit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited 00 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraon 00, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims r strict time limits, see current FedEx Service Guide.

10C

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **17-Mar-16 09:30**

Work Order: **1603981** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 17-Mar-16 (Date) Reviewed by: Chad Whelton (eSignature) 18-Mar-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):	1.0/1.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/17/2016 4:28:31 PM		
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:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

23-Mar-2016

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **RMV 54-28 Backgrounds** Work Order: **1603982**

Dear Karolina,

ALS Environmental received 3 samples on 17-Mar-2016 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 NELAP standard requirements and QC 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 14.

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

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 998501

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 23-Mar-16

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Backgrounds
Work Order: **1603982**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1603982-01	RMV 54-28-B-1	Soil		3/16/2016 13:20	3/17/2016 09:30	☐
1603982-02	RMV 54-28-B-2	Soil		3/16/2016 13:25	3/17/2016 09:30	☐
1603982-03	RMV 54-28-B-3	Soil		3/16/2016 13:30	3/17/2016 09:30	☐

ALS Group USA, Corp

Date: 23-Mar-16

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not 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
n	Not offered for accreditation
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 PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
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

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *23-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Backgrounds
Work Order: 1603982
Sample ID: RMV 54-28-B-1
Lab ID: 1603982-01
Collection Date: 3/16/2016 01:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 3/22/16	Analyst: **BL**
Arsenic	**9.9**		**0.38**	**mg/Kg-dry**	1	3/22/2016 08:19 PM
SOLUBLE CATIONS FOR SAR			**SW846 6010C**		Prep: USDA Method 20B / 3/20/16	Analyst: **BL**
Calcium	**400**		**20**	**mg/L**	40	3/21/2016 12:28 PM
Magnesium	**100**		**8.0**	**mg/L**	40	3/21/2016 12:28 PM
Sodium	**190**		**8.0**	**mg/L**	40	3/21/2016 12:28 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep: USDA Method 20B / 3/20/16	Analyst: **BL**
Sodium Adsorption Ratio	**2.2**		**0.010**	**none**	1	3/21/2016
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep: USDA Method 20B / 3/20/16	Analyst: **JB**
Electrical Conductivity @ Saturation	**4.3**		**0.050**	**mmhos/cm @2**	10	3/21/2016 02:30 PM
MOISTURE			**SW3550C**			Analyst: **ED**
Moisture	**9.6**		**0.050**	**% of sample**	1	3/21/2016 04:47 PM
PH			**SW9045D**		Prep: EXTRACT / 3/18/16	Analyst: **JB**
pH	**7.8**			**s.u.**	1	3/18/2016 11:00 AM

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

ALS Group USA, Corp

Date: *23-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Backgrounds
Work Order: 1603982
Sample ID: RMV 54-28-B-2
Lab ID: 1603982-02
Collection Date: 3/16/2016 01:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 3/22/16	Analyst: **BL**
Arsenic	**9.7**		**0.38**	**mg/Kg-dry**	1	3/22/2016 08:25 PM
MOISTURE			**SW3550C**			Analyst: **ED**
Moisture	**1.8**		**0.050**	**% of sample**	1	3/21/2016 04:47 PM

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

ALS Group USA, Corp

Date: *23-Mar-16*

Client: WPX Energy Rocky Mountain, LLC
Project: RMV 54-28 Backgrounds
Work Order: 1603982
Sample ID: RMV 54-28-B-3
Lab ID: 1603982-03
Collection Date: 3/16/2016 01:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3050B / 3/22/16	Analyst: **BL**
Arsenic	**11**		**0.35**	**mg/Kg-dry**	1	3/22/2016 08:31 PM
MOISTURE			**SW3550C**			Analyst: **ED**
Moisture	**5.9**		**0.050**	**% of sample**	1	3/21/2016 04:47 PM

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

ALS Group USA, Corp

Date: 23-Mar-16

Client: WPX Energy Rocky Mountain, LLC

Work Order: 1603982

Project: RMV 54-28 Backgrounds

QC BATCH REPORT

Batch ID: **83665** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP	Sample ID: **1603775-01ADUP**				Units: **none**			Analysis Date: **3/21/2016**		
Client ID:		Run ID: **SAR_160321A**			SeqNo: **3741765**		Prep Date: **3/20/2016**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.927	0.010	0	0	0		9.031	9.45	50	

The following samples were analyzed in this batch: 1603982-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603982
Project: RMV 54-28 Backgrounds

QC BATCH REPORT

Batch ID: **83809** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-83809-83809** Units: **mg/Kg** Analysis Date: **3/22/2016 05:33 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744900** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS Sample ID: **LCS-83809-83809** Units: **mg/Kg** Analysis Date: **3/22/2016 05:39 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744901** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.181	0.25	5	0	104	80-120	0			

MS Sample ID: **16031095-01AMS** Units: **mg/Kg** Analysis Date: **3/22/2016 06:14 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744907** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.085	0.35	7.072	1.502	107	75-125	0			

MSD Sample ID: **16031095-01AMSD** Units: **mg/Kg** Analysis Date: **3/22/2016 06:20 PM**
Client ID: Run ID: **ICP2_160322A** SeqNo: **3744908** Prep Date: **3/22/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.628	0.35	7.092	1.502	115	75-125	9.085	5.81	20	

The following samples were analyzed in this batch: 1603982-01B 1603982-02A 1603982-03A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603982
Project: RMV 54-28 Backgrounds

QC BATCH REPORT

Batch ID: **83665** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP Sample ID: **1603775-01A DUP** Units: **mmhos/cm @25°** Analysis Date: **3/21/2016 02:30 PM**
Client ID: Run ID: **WETCHEM_160321M** SeqNo: **3742084** Prep Date: **3/20/2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	9.12	0.050	0	0	0		7.61	18.1	50	

The following samples were analyzed in this batch: 1603982-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603982
Project: RMV 54-28 Backgrounds

QC BATCH REPORT

Batch ID: **83691** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-83691-83691** Units: **s.u.** Analysis Date: **3/18/2016 11:00 AM**
Client ID: Run ID: **WETCHEM_160318E** SeqNo: **3739623** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4	0	4	0	100	90-110	0			

DUP Sample ID: **1603960-01A DUP** Units: **s.u.** Analysis Date: **3/18/2016 11:00 AM**
Client ID: Run ID: **WETCHEM_160318E** SeqNo: **3739625** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.81	0	0	0	0	0-0	7.92	1.4	20	

DUP Sample ID: **1603976-01B DUP** Units: **s.u.** Analysis Date: **3/18/2016 11:00 AM**
Client ID: Run ID: **WETCHEM_160318E** SeqNo: **3739630** Prep Date: **3/18/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.96	0	0	0	0	0-0	7.8	2.03	20	

The following samples were analyzed in this batch: 1603982-01B

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1603982
Project: RMV 54-28 Backgrounds

QC BATCH REPORT

Batch ID: **R183929** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R183929** Units: **% of sample** Analysis Date: **3/21/2016 04:47 PM**
Client ID: Run ID: **MOIST_160321C** SeqNo: **3744076** 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-R183929** Units: **% of sample** Analysis Date: **3/21/2016 04:47 PM**
Client ID: Run ID: **MOIST_160321C** SeqNo: **3744075** 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: **16031079-01A DUP** Units: **% of sample** Analysis Date: **3/21/2016 04:47 PM**
Client ID: Run ID: **MOIST_160321C** SeqNo: **3744057** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.73	0.050	0	0	0		16.14	3.59	20	

DUP Sample ID: **16031095-05A DUP** Units: **% of sample** Analysis Date: **3/21/2016 04:47 PM**
Client ID: Run ID: **MOIST_160321C** SeqNo: **3744065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	28.54	0.050	0	0	0		34.58	19.1	20	

The following samples were analyzed in this batch: 1603982-01B 1603982-02A 1603982-03A

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

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

		SAMPLER		DATE	3/16/2016	WORKORDER #	1603982
PROJECT NAME	RMV 54-28 backgrounds	SITE ID	RMV 54-28 landfarm	TURNAROUND	5 days	PAGE	1 of 1
PROJECT No.		EDD FORMAT				DISPOSAL	By Lab or Return to Client
		PURCHASE ORDER					
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy				
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney; Leo Braun				
ADDRESS		ADDRESS	1058 Co Rd 215				
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635				
PHONE		PHONE	970-683-2295				
FAX		FAX					
E-MAIL	Karolina.blaney@wpxenergy.com;	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Arsenic	pH, EC, SAR
1	RMV 54-28-B-1	S	3/16/2016	13:20	1	8	x	x	x
2	RMV 54-28-B-2	S	3/16/2016	13:25	2	8	x	X	
3	RMV 54-28-B-3	S	3/16/2016	13:30	3	8	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)	
1.0°C	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	3/16/2016	16:00
RECEIVED BY			3-16-16	1600
RELINQUISHED BY			3-16-16	1630
RECEIVED BY		Kevin W. Frenzel	3/17/16	0930
RELINQUISHED BY				
RECEIVED BY				

ORIGIN ID:RILA (816) 298-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST. ST
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 16MAR16
ACTWGT: 55.00 LB
CAD: 2264840/INET3730
DIMS: 14x26x15 IN

BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424
(616) 399-6070 REF: 031616-1
INV:
PO: PARACHUTE DEPT:

540J1/CF34/727F

FedEx. Express

E

REL# 3785346

THU - 17 MAR 10:30A
PRIORITY OVERNIGHT

2 of 2
MPS# 0263 **7758 9422 9843**
Mstr# 7758 9423 0402 0201

49424
XX HLMA MI-US **GRR**

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL
Date: 3-16 Time:
Name:
Company:

Seal Broken By:
Date:

1.0°C

After p[...]
1. Use [...] this page to print your label to your laser or inkjet printer.
2. Fold [...]ng the horizontal line.
3. Plac[...]ouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warnin[...]ted original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in [...]arges, along with the cancellation of your FedEx account number.

Use of [...]tes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not [...]ny claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinfo[...]declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found i[...]Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales [...]ofit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited [...]50 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraor[...]on, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims [...]ithin time limits, see current FedEx Service Guide.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **WPX** Date/Time Received: **17-Mar-16 09:30**

Work Order: **1603982** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 17-Mar-16 (Date) Reviewed by: Chad Whelton (eSignature) 18-Mar-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):	1.0/1.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/17/2016 4:31:54 PM		
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:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: