15-Jun-2018

Mike Gardner
Terra Energy Partners, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **DOE 3-W-29** Work Order: **1806573**

Dear Mike,

ALS Environmental received 1 sample on 09-Jun-2018 10:15 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 23.

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

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

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 998501

ALS Group, USA

Date: 15-Jun-18

Client: Terra Energy Partners, LLC
Project: DOE 3-W-29
Work Order: **1806573**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1806573-01	DOE 3-W-29	Soil		6/8/2018 11:45	6/9/2018 10:15	☐

ALS Group, USA

Date: 15-Jun-18

Client: Terra Energy Partners, LLC
Project: DOE 3-W-29
Work Order: 1806573

Case Narrative

Batch 119743, Method CR6_7196_S, Sample 1806573-01A MS/MSD: The MS/MSD recovery was below the lower control limit for Hexavalent Chromium. The corresponding result in the parent sample may be biased low.

ALS Group, USA

Date: 15-Jun-18

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

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	Milligrams per Kilogram
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

Date: *15-Jun-18*

Client: Terra Energy Partners, LLC
Project: DOE 3-W-29 **Work Order:** 1806573
Sample ID: DOE 3-W-29 **Lab ID:** 1806573-01
Collection Date: 6/8/2018 11:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015C**	Prep: SW3546 6/11/18 11:50		Analyst: **MEB**
DRO (C10-C28)	ND		6.0	mg/Kg-dry	1	6/11/2018 04:58 PM
Surr: 4-Terphenyl-d14	*47.5*		*34-130*	*%REC*	1	6/11/2018 04:58 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015D**	Prep: SW5035 6/10/18 17:04		Analyst: **MEB**
GRO (C6-C10)	**76**		**7.3**	**mg/Kg**	1	6/12/2018 02:28 AM
Surr: Toluene-d8	*114*		*71-123*	*%REC*	1	6/12/2018 02:28 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 6/12/18 10:32		Analyst: **RSH**
Mercury	**0.042**		**0.022**	**mg/Kg-dry**	1	6/12/2018 02:28 PM
METALS ANALYSIS BY ICP			**SW846 6010C**	Prep: SW3050B 6/11/18 12:27		Analyst: **ABL**
Arsenic	**10**		**0.42**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Barium	**250**		**0.42**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Cadmium	ND		0.84	mg/Kg-dry	1	6/12/2018 12:50 PM
Chromium	**14**		**0.42**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Copper	**17**		**0.84**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Lead	**9.8**		**0.42**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Nickel	**13**		**0.42**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
Selenium	ND		0.84	mg/Kg-dry	1	6/12/2018 12:50 PM
Silver	ND		0.42	mg/Kg-dry	1	6/12/2018 12:50 PM
Zinc	**52**		**0.84**	**mg/Kg-dry**	1	6/12/2018 12:50 PM
SOLUBLE CATIONS FOR SAR			**SW6020A**	Prep: USDA Method 20B 6/13/18 10:16		Analyst: **JF**
Calcium	**61**		**5.0**	**mg/L**	10	6/14/2018 06:36 PM
Magnesium	**49**		**2.0**	**mg/L**	10	6/14/2018 06:36 PM
Sodium	**240**		**2.0**	**mg/L**	10	6/14/2018 06:36 PM
SODIUM ADSORPTION RATIO			**USDA H60 MET**	Prep: USDA Method 20B 6/13/18 10:16		Analyst: **RH**
Sodium Adsorption Ratio	**5.5**		**0.010**	**none**	1	6/14/2018
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**	Prep: SW3546 6/11/18 11:50		Analyst: **RM**
Acenaphthene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Anthracene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Benzo(a)anthracene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Benzo(a)pyrene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Benzo(b)fluoranthene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Benzo(k)fluoranthene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Chrysene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Dibenzo(a,h)anthracene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Fluoranthene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM

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

ALS Group, USA

Date: *15-Jun-18*

Client: Terra Energy Partners, LLC
Project: DOE 3-W-29 **Work Order:** 1806573
Sample ID: DOE 3-W-29 **Lab ID:** 1806573-01
Collection Date: 6/8/2018 11:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Indeno(1,2,3-cd)pyrene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Naphthalene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Pyrene	ND		0.050	mg/Kg-dry	1	6/11/2018 09:49 PM
Surr: 2-Fluorobiphenyl	*40.8*		*20-140*	*%REC*	1	6/11/2018 09:49 PM
Surr: 4-Terphenyl-d14	*44.0*		*22-172*	*%REC*	1	6/11/2018 09:49 PM
Surr: Nitrobenzene-d5	*47.9*		*28-140*	*%REC*	1	6/11/2018 09:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 6/10/18 17:04		Analyst: **BG**
Benzene	ND		0.044	mg/Kg	1	6/11/2018 02:46 PM
Ethylbenzene	**0.11**		**0.044**	**mg/Kg**	1	6/11/2018 02:46 PM
m,p-Xylene	**1.8**		**0.088**	**mg/Kg**	1	6/11/2018 02:46 PM
o-Xylene	**0.29**		**0.044**	**mg/Kg**	1	6/11/2018 02:46 PM
Toluene	**0.23**		**0.044**	**mg/Kg**	1	6/11/2018 02:46 PM
Xylenes, Total	**2.1**		**0.13**	**mg/Kg**	1	6/11/2018 02:46 PM
Surr: 1,2-Dichloroethane-d4	*99.2*		*70-130*	*%REC*	1	6/11/2018 02:46 PM
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	1	6/11/2018 02:46 PM
Surr: Dibromofluoromethane	*92.8*		*70-130*	*%REC*	1	6/11/2018 02:46 PM
Surr: Toluene-d8	*98.0*		*70-130*	*%REC*	1	6/11/2018 02:46 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 MET**	Prep: USDA Method 20B 6/13/18 10:16		Analyst: **ED**
Electrical Conductivity @ Saturation	**2.0**		**0.10**	**mmhos/cm @2**	20	6/13/2018 11:12 AM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **JB**
Chromium, Trivalent	**14**		**1.2**	**mg/Kg-dry**	1	6/14/2018 09:30 AM
CHROMIUM, HEXAVALENT			**SW7196A**	Prep: SW3060A 6/11/18 20:00		Analyst: **MB**
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	6/13/2018 02:15 PM
MOISTURE			**SW3550C**			Analyst: **SBR**
Moisture	**19**		**0.050**	**% of sample**	1	6/11/2018 11:37 AM
PH			**SW9045D**	Prep: EXTRACT 6/11/18 10:37		Analyst: **RZM**
pH	**8.02**		**0.100**	**s.u.**	1	6/12/2018 01:45 PM

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

ALS Group, USA

Date: 15-Jun-18

Client: Terra Energy Partners, LLC

Work Order: 1806573

Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119551** Instrument ID **GC8** Method: **SW8015C**

MBLK	Sample ID: **DBLKS1-119551-119551**			Units: **mg/Kg**			Analysis Date: **6/11/2018 12:36 PM**			
Client ID:	Run ID: **GC8_180611A**			SeqNo: **5083551**		Prep Date: **6/11/2018**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	*2.383*	0	*3.33*	0	*71.6*	*34-130*	0			

LCS	Sample ID: **DLCSS1-119551-119551**			Units: **mg/Kg**			Analysis Date: **6/11/2018 01:05 PM**			
Client ID:	Run ID: **GC8_180611A**			SeqNo: **5083552**		Prep Date: **6/11/2018**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	376	5.0	333	0	113	65-122	0			
Surr: 4-Terphenyl-d14	*2.5*	0	*3.33*	0	*75.1*	*34-130*	0			

MS	Sample ID: **1806407-07A MS**			Units: **mg/Kg**			Analysis Date: **6/11/2018 02:03 PM**			
Client ID:	Run ID: **GC8_180611A**			SeqNo: **5083554**		Prep Date: **6/11/2018**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	374.8	5.0	331.9	155.4	66.1	65-122	0			
Surr: 4-Terphenyl-d14	*2.891*	0	*3.319*	0	*87.1*	*34-130*	0			

MSD	Sample ID: **1806407-07A MSD**			Units: **mg/Kg**			Analysis Date: **6/11/2018 02:33 PM**			
Client ID:	Run ID: **GC8_180611A**			SeqNo: **5083555**		Prep Date: **6/11/2018**		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	378.1	5.0	329.7	155.4	67.6	65-122	374.8	0.899	30	
Surr: 4-Terphenyl-d14	*2.261*	0	*3.297*	0	*68.6*	*34-130*	2.891	*24.5*	*30*	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119529** Instrument ID **GC9** Method: **SW8015D**

MBLK Sample ID: **MBLK-119529-119529** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 01:28 AM**
Client ID: Run ID: **GC9_180611A** SeqNo: **5084748** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000								
Surr: Toluene-d8	*5756*	0	*5000*	0	*115*	*71-123*	0			

LCS Sample ID: **LCS-119529-119529** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 12:00 PM**
Client ID: Run ID: **GC9_180611A** SeqNo: **5084766** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	517800	5,000	500000	0	104	71-123	0			
Surr: Toluene-d8	*5524*	0	*5000*	0	*110*	*71-123*	0			

MS Sample ID: **1806398-01A MS** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 10:25 AM**
Client ID: Run ID: **GC9_180611A** SeqNo: **5084764** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	567900	6,600	662800	0	85.7	71-123	0			
Surr: Toluene-d8	*7097*	0	*6628*	0	*107*	*71-123*	0			

MSD Sample ID: **1806398-01A MSD** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 10:54 AM**
Client ID: Run ID: **GC9_180611A** SeqNo: **5084765** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	536600	6,600	662800	0	81	71-123	567900	5.68	30	
Surr: Toluene-d8	*7042*	0	*6628*	0	*106*	*71-123*	7097	*0.778*	*30*	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119637** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-119637-119637** Units: **mg/Kg** Analysis Date: **6/12/2018 02:16 PM**
Client ID: Run ID: **HG1_180612A** SeqNo: **5084829** Prep Date: **6/12/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.009583	0.020								J

LCS Sample ID: **LCS-119637-119637** Units: **mg/Kg** Analysis Date: **6/12/2018 02:18 PM**
Client ID: Run ID: **HG1_180612A** SeqNo: **5084830** Prep Date: **6/12/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1992	0.020	0.1665	0	120	80-120	0			

MS Sample ID: **1806136-03BMS** Units: **mg/Kg** Analysis Date: **6/12/2018 02:37 PM**
Client ID: Run ID: **HG1_180612A** SeqNo: **5085053** Prep Date: **6/12/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1827	0.017	0.1437	0.05225	90.8	75-125	0			

MSD Sample ID: **1806136-03BMSD** Units: **mg/Kg** Analysis Date: **6/12/2018 02:47 PM**
Client ID: Run ID: **HG1_180612A** SeqNo: **5085057** Prep Date: **6/12/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1816	0.017	0.1439	0.05225	89.8	75-125	0.1827	0.647	35	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119566** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-119566-119566** Units: **mg/Kg** Analysis Date: **6/11/2018 01:11 PM**
Client ID: Run ID: **ICP2_180611A** SeqNo: **5083037** Prep Date: **6/11/2018** 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	0.02775	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.0745	0.50								J

LCS Sample ID: **LCS-119566-119566** Units: **mg/Kg** Analysis Date: **6/11/2018 01:17 PM**
Client ID: Run ID: **ICP2_180611A** SeqNo: **5083039** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.805	0.25	5	0	96.1	80-120	0			
Barium	5.32	0.25	5	0	106	80-120	0			
Cadmium	5.133	0.50	5	0	103	80-120	0			
Chromium	5.328	0.25	5	0	107	80-120	0			
Copper	5.458	0.50	5	0	109	80-120	0			
Lead	5.167	0.25	5	0	103	80-120	0			
Nickel	5.236	0.25	5	0	105	80-120	0			
Selenium	4.895	0.50	5	0	97.9	80-120	0			
Silver	5.17	0.25	5	0	103	80-120	0			
Zinc	5.118	0.50	5	0	102	80-120	0			

MS Sample ID: **1806105-01AMS** Units: **mg/Kg** Analysis Date: **6/12/2018 11:33 PM**
Client ID: Run ID: **ICP2_180612A** SeqNo: **5085814** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.34	0.40	8.026	4.428	186	75-125	0			S
Barium	19.99	0.40	8.026	8.755	140	75-125	0			S
Cadmium	8.085	0.80	8.026	0.1031	99.5	75-125	0			
Chromium	14.61	0.40	8.026	3.575	137	75-125	0			S
Copper	16.49	0.80	8.026	7.662	110	75-125	0			
Lead	17.94	0.40	8.026	4.605	166	75-125	0			S
Nickel	14.72	0.40	8.026	6.119	107	75-125	0			
Selenium	7.952	0.80	8.026	0.1868	96.8	75-125	0			
Silver	8.202	0.40	8.026	-0.08003	103	75-125	0			
Zinc	44.62	0.80	8.026	27.31	216	75-125	0			S

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119566** Instrument ID **ICP2** Method: **SW846 6010C**

MSD Sample ID: **1806105-01AMSD** Units: **mg/Kg** Analysis Date: **6/12/2018 11:39 PM**

Client ID: Run ID: **ICP2_180612A** SeqNo: **5085815** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.16	0.40	8.026	4.428	83.9	75-125	19.34	53.7	20	R
Barium	21.08	0.40	8.026	8.755	154	75-125	19.99	5.31	20	S
Cadmium	8.046	0.80	8.026	0.1031	99	75-125	8.085	0.491	20	
Chromium	14.35	0.40	8.026	3.575	134	75-125	14.61	1.76	20	S
Copper	16.36	0.80	8.026	7.662	108	75-125	16.49	0.804	20	
Lead	12.49	0.40	8.026	4.605	98.3	75-125	17.94	35.8	20	R
Nickel	14.41	0.40	8.026	6.119	103	75-125	14.72	2.11	20	
Selenium	7.985	0.80	8.026	0.1868	97.2	75-125	7.952	0.418	20	
Silver	8.269	0.40	8.026	-0.08003	104	75-125	8.202	0.812	20	
Zinc	36.22	0.80	8.026	27.31	111	75-125	44.62	20.8	20	R

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119714** Instrument ID **ICPMS3** Method: **SW6020A**

DUP Sample ID: **1806573-01ADUP** Units: **mg/L** Analysis Date: **6/14/2018 06:37 PM**
Client ID: **DOE 3-W-29** Run ID: **ICPMS3_180614A** SeqNo: **5091142** Prep Date: **6/13/2018** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	65.38	5.0	0	0	0	0-0	60.91	7.07		
Magnesium	53.76	2.0	0	0	0	0-0	48.99	9.27		
Sodium	264.6	2.0	0	0	0	0-0	238.7	10.3		

The following samples were analyzed in this batch: 1806573-01A

Batch ID: **119714** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP Sample ID: **1806573-01ADUP** Units: **none** Analysis Date: **6/14/2018**
Client ID: **DOE 3-W-29** Run ID: **SAR_180614A** SeqNo: **5093031** Prep Date: **6/13/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.871	0.010	0	0	0		5.521	6.15	50	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119550** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-119550-119550** Units: **µg/Kg** Analysis Date: **6/11/2018 06:58 PM**
Client ID: Run ID: **SVMS6_180611A** SeqNo: **5084541** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	42								
Anthracene	ND	42								
Benzo(a)anthracene	ND	42								
Benzo(a)pyrene	ND	42								
Benzo(b)fluoranthene	ND	42								
Benzo(k)fluoranthene	ND	42								
Chrysene	ND	42								
Dibenzo(a,h)anthracene	ND	42								
Fluoranthene	ND	42								
Fluorene	ND	42								
Indeno(1,2,3-cd)pyrene	ND	42								
Naphthalene	ND	42								
Pyrene	ND	42								
Surr: 2-Fluorobiphenyl	*2342*	0	*3333*	0	*70.3*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2856*	0	*3333*	0	*85.7*	*22-172*	0			
Surr: Nitrobenzene-d5	*2933*	0	*3333*	0	*88*	*28-140*	0			

LCS Sample ID: **SLCSS1-119550-119550** Units: **µg/Kg** Analysis Date: **6/11/2018 07:13 PM**
Client ID: Run ID: **SVMS6_180611A** SeqNo: **5084542** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	825.2	42	1333	0	61.9	40-140	0			
Anthracene	908.8	42	1333	0	68.2	40-140	0			
Benzo(a)anthracene	785.8	42	1333	0	59	40-140	0			
Benzo(a)pyrene	856.2	42	1333	0	64.2	40-140	0			
Benzo(b)fluoranthene	711.2	42	1333	0	53.4	40-140	0			
Benzo(k)fluoranthene	869.8	42	1333	0	65.3	40-140	0			
Chrysene	900.5	42	1333	0	67.6	40-140	0			
Dibenzo(a,h)anthracene	1024	42	1333	0	76.8	40-140	0			
Fluoranthene	816.5	42	1333	0	61.3	40-140	0			
Fluorene	828.3	42	1333	0	62.1	40-140	0			
Indeno(1,2,3-cd)pyrene	1182	42	1333	0	88.7	40-140	0			
Naphthalene	888.1	42	1333	0	66.6	40-140	0			
Pyrene	794.8	42	1333	0	59.6	40-140	0			
Surr: 2-Fluorobiphenyl	*1658*	0	*3333*	0	*49.8*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2035*	0	*3333*	0	*61*	*22-172*	0			
Surr: Nitrobenzene-d5	*2336*	0	*3333*	0	*70.1*	*28-140*	0			

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119550** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **1806485-01A MS** Units: **µg/Kg** Analysis Date: **6/11/2018 07:27 PM**
Client ID: Run ID: **SVMS6_180611A** SeqNo: **5084543** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1140	41	1325	0	86	40-140	0			
Anthracene	1221	41	1325	0	92.1	40-140	0			
Benzo(a)anthracene	1019	41	1325	0	76.9	40-140	0			
Benzo(a)pyrene	957.6	41	1325	0	72.3	40-140	0			
Benzo(b)fluoranthene	830	41	1325	0	62.6	40-140	0			
Benzo(k)fluoranthene	1070	41	1325	0	80.7	40-140	0			
Chrysene	1068	41	1325	0	80.6	40-140	0			
Dibenzo(a,h)anthracene	1023	41	1325	0	77.2	40-140	0			
Fluoranthene	1158	41	1325	0	87.4	40-140	0			
Fluorene	1156	41	1325	0	87.2	40-140	0			
Indeno(1,2,3-cd)pyrene	1076	41	1325	0	81.2	40-140	0			
Naphthalene	1218	41	1325	0	91.9	40-140	0			
Pyrene	1054	41	1325	0	79.5	40-140	0			
Surr: 2-Fluorobiphenyl	*2536*	0	*3314*	0	*76.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3035*	0	*3314*	0	*91.6*	*22-172*	0			
Surr: Nitrobenzene-d5	*3080*	0	*3314*	0	*92.9*	*28-140*	0			

MSD Sample ID: **1806485-01A MSD** Units: **µg/Kg** Analysis Date: **6/11/2018 07:41 PM**
Client ID: Run ID: **SVMS6_180611A** SeqNo: **5084544** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1013	40	1286	0	78.8	40-140	1140	11.7	30	
Anthracene	1101	40	1286	0	85.6	40-140	1221	10.4	30	
Benzo(a)anthracene	891.7	40	1286	0	69.3	40-140	1019	13.4	30	
Benzo(a)pyrene	858.2	40	1286	0	66.7	40-140	957.6	11	30	
Benzo(b)fluoranthene	748	40	1286	0	58.1	40-140	830	10.4	30	
Benzo(k)fluoranthene	960.4	40	1286	0	74.7	40-140	1070	10.8	30	
Chrysene	956.4	40	1286	0	74.3	40-140	1068	11	30	
Dibenzo(a,h)anthracene	993.4	40	1286	0	77.2	40-140	1023	2.95	30	
Fluoranthene	1031	40	1286	0	80.1	40-140	1158	11.6	30	
Fluorene	1047	40	1286	0	81.4	40-140	1156	9.89	30	
Indeno(1,2,3-cd)pyrene	1042	40	1286	0	81	40-140	1076	3.24	30	
Naphthalene	1080	40	1286	0	83.9	40-140	1218	12	30	
Pyrene	922.9	40	1286	0	71.7	40-140	1054	13.2	30	
Surr: 2-Fluorobiphenyl	*2226*	0	*3216*	0	*69.2*	*20-140*	2536	*13*	*0*	
Surr: 4-Terphenyl-d14	*2625*	0	*3216*	0	*81.6*	*22-172*	3035	*14.5*	*0*	
Surr: Nitrobenzene-d5	*2885*	0	*3216*	0	*89.7*	*28-140*	3080	*6.56*	*0*	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119528** Instrument ID **VMS7** Method: **SW8260C**

MBLK Sample ID: **MBLK-119528-119528** Units: **µg/Kg-dry** Analysis Date: **6/11/2018 07:52 PM**
Client ID: Run ID: **VMS7_180611A** SeqNo: **5083984** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30	0	0	0	0-0	0			
Ethylbenzene	ND	30	0	0	0	0-0	0			
m,p-Xylene	ND	60	0	0	0	0-0	0			
o-Xylene	ND	30	0	0	0	0-0	0			
Toluene	ND	30	0	0	0	0-0	0			
Xylenes, Total	ND	90	0	0	0	0-0	0			
Surr: 1,2-Dichloroethane-d4	*1075*	0	*1000*	0	*108*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1032*	0	*1000*	0	*103*	*70-130*	0			
Surr: Dibromofluoromethane	*1014*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*1000*	0	*1000*	0	*100*	*70-130*	0			

LCS Sample ID: **LCS-119528-119528** Units: **µg/Kg-dry** Analysis Date: **6/11/2018 06:52 PM**
Client ID: Run ID: **VMS7_180611A** SeqNo: **5084143** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1090	30	1000	0	109	75-125	0			
Ethylbenzene	1122	30	1000	0	112	75-125	0			
m,p-Xylene	2072	60	2000	0	104	80-125	0			
o-Xylene	1064	30	1000	0	106	75-125	0			
Toluene	1075	30	1000	0	108	70-125	0			
Xylenes, Total	3136	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1070*	0	*1000*	0	*107*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*932*	0	*1000*	0	*93.2*	*70-130*	0			
Surr: Dibromofluoromethane	*1044*	0	*1000*	0	*104*	*70-130*	0			
Surr: Toluene-d8	*1006*	0	*1000*	0	*101*	*70-130*	0			

MS Sample ID: **1806398-01A MS** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 12:37 PM**
Client ID: Run ID: **VMS7_180611A** SeqNo: **5084040** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1402	40	1326	0	106	75-125	0			
Ethylbenzene	1344	40	1326	0	101	75-125	0			
m,p-Xylene	2975	80	2651	0	112	80-125	0			
o-Xylene	1369	40	1326	0	103	75-125	0			
Toluene	1507	40	1326	0	114	70-125	0			
Xylenes, Total	4345	120	3977	0	109	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1341*	0	*1326*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1329*	0	*1326*	0	*100*	*70-130*	0			
Surr: Dibromofluoromethane	*1326*	0	*1326*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1501*	0	*1326*	0	*113*	*70-130*	0			

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119528** Instrument ID **VMS7** Method: **SW8260C**

MSD Sample ID: **1806398-01A MSD** Units: **µg/Kg-dry** Analysis Date: **6/12/2018 12:52 PM**

Client ID: Run ID: **VMS7_180611A** SeqNo: **5084041** Prep Date: **6/10/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1510	40	1326	0	114	75-125	1402	7.46	30	
Ethylbenzene	1422	40	1326	0	107	75-125	1344	5.65	30	
m,p-Xylene	2986	80	2651	0	113	80-125	2975	0.356	30	
o-Xylene	1404	40	1326	0	106	75-125	1369	2.49	30	
Toluene	1429	40	1326	0	108	70-125	1507	5.33	30	
Xylenes, Total	4390	120	3977	0	110	75-125	4345	1.03	30	
Surr: 1,2-Dichloroethane-d4	*1405*	0	*1326*	0	*106*	*70-130*	1341	*4.63*	*30*	
Surr: 4-Bromofluorobenzene	*1546*	0	*1326*	0	*117*	*70-130*	1329	*15.1*	*30*	
Surr: Dibromofluoromethane	*1375*	0	*1326*	0	*104*	*70-130*	1326	*3.68*	*30*	
Surr: Toluene-d8	*1257*	0	*1326*	0	*94.8*	*70-130*	1501	*17.7*	*30*	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119553** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-119553-119553** Units: **s.u.** Analysis Date: **6/12/2018 01:45 PM**
Client ID: Run ID: **WETCHEM_180612H** SeqNo: **5084969** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.97	0.10	4	0	99.2	90-110	0			

DUP Sample ID: **1806437-11B DUP** Units: **s.u.** Analysis Date: **6/12/2018 01:45 PM**
Client ID: Run ID: **WETCHEM_180612H** SeqNo: **5084980** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.47	0.10	0	0	0	0-0	8.54	0.823	20	

DUP Sample ID: **1806573-01A DUP** Units: **s.u.** Analysis Date: **6/12/2018 01:45 PM**
Client ID: **DOE 3-W-29** Run ID: **WETCHEM_180612H** SeqNo: **5084991** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.16	0.10	0	0	0	0-0	8.02	1.73	20	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119714** Instrument ID **Titrator 1** Method: **USDA H60 Metho**

DUP Sample ID: **1806573-01ADUP** Units: **mmhos/cm @25°** Analysis Date: **6/13/2018 11:12 AM**

Client ID: **DOE 3-W-29** Run ID: **TITRATOR 1_180613A** SeqNo: **5086597** Prep Date: **6/13/2018** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.181	0.10	0	0	0		1.966	10.4	50	

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119743** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-119743-119743** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: Run ID: **WETCHEM_180613N** SeqNo: **5087673** Prep Date: **6/11/2018** 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-119743-119743** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: Run ID: **WETCHEM_180613N** SeqNo: **5087672** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.74	1.0	5	0	94.8	80-120	0			

MS Sample ID: **1806397-01A MS** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: Run ID: **WETCHEM_180613N** SeqNo: **5087654** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.647	0.98	4.902	0.2075	90.6	75-125	0			

MS Sample ID: **1806397-01A MSI** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: Run ID: **WETCHEM_180613N** SeqNo: **5087656** Prep Date: **6/11/2018** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2198	98	2398	0.2075	91.7	75-125	0			

MS Sample ID: **1806573-01A MS** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: **DOE 3-W-29** Run ID: **WETCHEM_180613N** SeqNo: **5087668** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.51	0.98	4.902	-0.0381	72.4	75-125	0			S

MS Sample ID: **1806573-01A MSI** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: **DOE 3-W-29** Run ID: **WETCHEM_180613N** SeqNo: **5087670** Prep Date: **6/11/2018** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1558	95	1854	-0.0381	84	75-125	0			

MSD Sample ID: **1806397-01A MSD** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**
Client ID: Run ID: **WETCHEM_180613N** SeqNo: **5087655** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	4.223	0.97	4.854	0.2075	82.7	75-125	4.647	9.55	20	

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **119743** Instrument ID **WETCHEM** Method: **SW7196A**

MSD Sample ID: **1806573-01A MSD** Units: **mg/Kg** Analysis Date: **6/13/2018 02:15 PM**

Client ID: **DOE 3-W-29** Run ID: **WETCHEM_180613N** SeqNo: **5087669** Prep Date: **6/11/2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	3.58	1.0	5	-0.0381	72.4	75-125	3.51	1.98	20	S

The following samples were analyzed in this batch: 1806573-01A

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

Client: Terra Energy Partners, LLC
Work Order: 1806573
Project: DOE 3-W-29

QC BATCH REPORT

Batch ID: **R237804** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R237804** Units: **% of sample** Analysis Date: **6/11/2018 11:37 AM**
Client ID: Run ID: **MOIST_180611A** SeqNo: **5083888** 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-R237804** Units: **% of sample** Analysis Date: **6/11/2018 11:37 AM**
Client ID: Run ID: **MOIST_180611A** SeqNo: **5083887** 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: **1806367-01A DUP** Units: **% of sample** Analysis Date: **6/11/2018 11:37 AM**
Client ID: Run ID: **MOIST_180611A** SeqNo: **5083866** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.91	0.050	0	0	0	0-0	5.08	15.1	10	R

DUP Sample ID: **1806367-11A DUP** Units: **% of sample** Analysis Date: **6/11/2018 11:37 AM**
Client ID: Run ID: **MOIST_180611A** SeqNo: **5083877** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	44.85	0.050	0	0	0	0-0	42.88	4.49	10	

The following samples were analyzed in this batch: 1806573-01A

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

ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r8

WORKORDER # 1806573

		SAMPLER	Mike Gardner	DATE	6/8/2018	PAGE	1 of 1
PROJECT NAME	DOE 3-W-29	SITE ID	DOE 3-W-29	TURNAROUND	RUSH - ASAP	DISPOSAL	By Lab or Return to Client
PROJECT No.		EDD FORMAT					
		PURCHASE ORDER					
COMPANY NAME	TEP Rocky Mountain LLC	BILL TO COMPANY	TEP Rocky Mountain LLC				
SEND REPORT TO	Mike Gardner	INVOICE ATTN TO	Mike Gardner, Tammy Gose				
ADDRESS		ADDRESS	1058 Co Rd 215				
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachure CO 81635				
PHONE		PHONE	970-263-2760				
FAX		FAX					
E-MAIL	mgardner@terraep.com	E-MAIL	mgardner@terraep.com; tgose@terraep.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	COGCC 910-1 List
1	DOE 3-W-29	soil	6/8/2018	11:45 a.m.	2			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:

Charge to DOE 3-W-29 pad LOE

SR2 2.8.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		Mike Gardner	6/8/2018	1200
RECEIVED BY			6-8-18	1200
RELINQUISHED BY			6-8-18	1830
RECEIVED BY		Diane F. Shea	6/9/18	1015
RELINQUISHED BY				
RECEIVED BY				

ALS Group, USA

Sample Receipt Checklist

Client Name: **TERRAENERGY** Date/Time Received: **09-Jun-18 10:15**

Work Order: **1806573** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 09-Jun-18 (Date) Reviewed by: Chad Whitton (eSignature) 11-Jun-18 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8/2.8 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/9/2018 11:03:15 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: