



11-May-2021

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

Re: **TEP - Gov 298-26-1 - Pothole Inves.**

Work Order: **21050130**

Dear Mike,

ALS Environmental received 8 samples on 03-May-2021 10:00 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 20.

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

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

Sincerely,

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

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Work Order: 21050130

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
21050130-01	PH 1 @ 8'	Soil		4/28/2021 08:30	5/3/2021 10:00	<input type="checkbox"/>
21050130-02	PH 2 @ 8'	Soil		4/28/2021 08:48	5/3/2021 10:00	<input type="checkbox"/>
21050130-03	PH 3 @ 3.5'	Soil		4/28/2021 09:00	5/3/2021 10:00	<input type="checkbox"/>
21050130-04	PH 4 @ 8'	Soil		4/28/2021 09:31	5/3/2021 10:00	<input type="checkbox"/>
21050130-05	PH 5 @ 10'	Soil		4/28/2021 10:32	5/3/2021 10:00	<input type="checkbox"/>
21050130-06	PH 6 @ 10'	Soil		4/28/2021 11:05	5/3/2021 10:00	<input type="checkbox"/>
21050130-07	PH 7 @ 11'	Soil		4/28/2021 12:00	5/3/2021 10:00	<input type="checkbox"/>
21050130-08	PH 8 @ 12'	Soil		4/28/2021 12:40	5/3/2021 10:00	<input type="checkbox"/>

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Work Order: 21050130

Case Narrative

Batch 176155, Method SW8260C, Sample PH 1 @ 8' (21050130-01A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 2 @ 8' (21050130-02A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 3 @ 3.5' (21050130-03A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 4 @ 8' (21050130-04A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 5 @ 10' (21050130-05A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 6 @ 10' (21050130-06A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 7 @ 11' (21050130-07A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 8 @ 12' (21050130-08A): Holding time was exceeded. VOCs from a bulk sample were not preserved within 48 hours of collection in accordance with EPA 5035A. Results are to be considered estimated.

Batch 176155, Method SW8260C, Sample PH 1 @ 8' (21050130-01A): VOC surrogate recovery high due to matrix interference.

Batch 176156, Method SW8015D, Sample PH 1 @ 8' (21050130-01A): GRO surrogate recovery high due to matrix interference.

Batch 176156, Method SW8015D, Sample PH 7 @ 11' (21050130-07A): GRO surrogate

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Work Order: 21050130

Case Narrative

recovery high due to matrix interference.

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
WorkOrder: 21050130

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
 Project: TEP - Gov 298-26-1 - Pothole Inves.
 Sample ID: PH 1 @ 8'
 Collection Date: 4/28/2021 08:30 AM

Work Order: 21050130
 Lab ID: 21050130-01
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	590		6.1	22	mg/Kg-dry	1	5/7/2021 20:23
Surr: 4-Terphenyl-d14	49.1			33-111	%REC	1	5/7/2021 20:23
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	2,700		3.4	8.1	mg/Kg-dry	1	5/6/2021 03:14
Surr: Toluene-d8	268	S		71-123	%REC	1	5/6/2021 03:14
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	0.22	H	0.024	0.049	mg/Kg-dry	1	5/8/2021 12:02
Ethylbenzene	4.6	H	0.010	0.049	mg/Kg-dry	1	5/8/2021 12:02
m,p-Xylene	100	H	0.65	0.97	mg/Kg-dry	10	5/11/2021 05:57
o-Xylene	20	H	0.19	0.49	mg/Kg-dry	10	5/11/2021 05:57
Toluene	6.8	H	0.013	0.049	mg/Kg-dry	1	5/8/2021 12:02
Xylenes, Total	120	H	0.65	1.5	mg/Kg-dry	10	5/11/2021 05:57
Surr: 1,2-Dichloroethane-d4	97.3	H		70-130	%REC	1	5/8/2021 12:02
Surr: 1,2-Dichloroethane-d4	88.9	H		70-130	%REC	10	5/11/2021 05:57
Surr: 4-Bromofluorobenzene	84.9	H		70-130	%REC	1	5/8/2021 12:02
Surr: 4-Bromofluorobenzene	102	H		70-130	%REC	10	5/11/2021 05:57
Surr: Dibromofluoromethane	91.3	H		70-130	%REC	1	5/8/2021 12:02
Surr: Dibromofluoromethane	96.9	H		70-130	%REC	10	5/11/2021 05:57
Surr: Toluene-d8	203	SH		70-130	%REC	1	5/8/2021 12:02
Surr: Toluene-d8	120	H		70-130	%REC	10	5/11/2021 05:57
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	21		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Sample ID: PH 2 @ 8'
Collection Date: 4/28/2021 08:48 AM

Work Order: 21050130
Lab ID: 21050130-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	12	J	3.4	12	mg/Kg-dry	1	5/7/2021 21:02
Surr: 4-Terphenyl-d14	60.2			33-111	%REC	1	5/7/2021 21:02
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	U		3.3	7.8	mg/Kg-dry	1	5/6/2021 03:37
Surr: Toluene-d8	93.2			71-123	%REC	1	5/6/2021 03:37
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.023	0.047	mg/Kg-dry	1	5/11/2021 06:13
Ethylbenzene	U	H	0.0099	0.047	mg/Kg-dry	1	5/11/2021 06:13
m,p-Xylene	U	H	0.063	0.094	mg/Kg-dry	1	5/11/2021 06:13
o-Xylene	U	H	0.018	0.047	mg/Kg-dry	1	5/11/2021 06:13
Toluene	U	H	0.013	0.047	mg/Kg-dry	1	5/11/2021 06:13
Xylenes, Total	U	H	0.063	0.14	mg/Kg-dry	1	5/11/2021 06:13
Surr: 1,2-Dichloroethane-d4	95.0	H		70-130	%REC	1	5/11/2021 06:13
Surr: 4-Bromofluorobenzene	100	H		70-130	%REC	1	5/11/2021 06:13
Surr: Dibromofluoromethane	94.5	H		70-130	%REC	1	5/11/2021 06:13
Surr: Toluene-d8	101	H		70-130	%REC	1	5/11/2021 06:13
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	19		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Sample ID: PH 3 @ 3.5'
Collection Date: 4/28/2021 09:00 AM

Work Order: 21050130
Lab ID: 21050130-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	U		3.3	11	mg/Kg-dry	1	5/6/2021 01:32
Surr: 4-Terphenyl-d14	59.4			33-111	%REC	1	5/6/2021 01:32
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	U		3.0	7.2	mg/Kg-dry	1	5/6/2021 04:00
Surr: Toluene-d8	93.8			71-123	%REC	1	5/6/2021 04:00
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.021	0.043	mg/Kg-dry	1	5/8/2021 12:34
Ethylbenzene	U	H	0.0092	0.043	mg/Kg-dry	1	5/8/2021 12:34
m,p-Xylene	U	H	0.058	0.087	mg/Kg-dry	1	5/8/2021 12:34
o-Xylene	U	H	0.017	0.043	mg/Kg-dry	1	5/8/2021 12:34
Toluene	U	H	0.012	0.043	mg/Kg-dry	1	5/8/2021 12:34
Xylenes, Total	U	H	0.058	0.13	mg/Kg-dry	1	5/8/2021 12:34
Surr: 1,2-Dichloroethane-d4	96.2	H		70-130	%REC	1	5/8/2021 12:34
Surr: 4-Bromofluorobenzene	102	H		70-130	%REC	1	5/8/2021 12:34
Surr: Dibromofluoromethane	89.5	H		70-130	%REC	1	5/8/2021 12:34
Surr: Toluene-d8	100	H		70-130	%REC	1	5/8/2021 12:34
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	14		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
 Project: TEP - Gov 298-26-1 - Pothole Inves.
 Sample ID: PH 4 @ 8'
 Collection Date: 4/28/2021 09:31 AM

Work Order: 21050130
 Lab ID: 21050130-04
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	55		3.2	11	mg/Kg-dry	1	5/7/2021 21:42
Surr: 4-Terphenyl-d14	53.3			33-111	%REC	1	5/7/2021 21:42
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	180		2.8	6.6	mg/Kg-dry	1	5/6/2021 04:23
Surr: Toluene-d8	110			71-123	%REC	1	5/6/2021 04:23
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.019	0.040	mg/Kg-dry	1	5/8/2021 12:50
Ethylbenzene	0.24	H	0.0084	0.040	mg/Kg-dry	1	5/8/2021 12:50
m,p-Xylene	5.1	H	0.053	0.079	mg/Kg-dry	1	5/8/2021 12:50
o-Xylene	1.0	H	0.015	0.040	mg/Kg-dry	1	5/8/2021 12:50
Toluene	0.37	H	0.011	0.040	mg/Kg-dry	1	5/8/2021 12:50
Xylenes, Total	6.1	H	0.053	0.12	mg/Kg-dry	1	5/8/2021 12:50
Surr: 1,2-Dichloroethane-d4	94.9	H		70-130	%REC	1	5/8/2021 12:50
Surr: 4-Bromofluorobenzene	110	H		70-130	%REC	1	5/8/2021 12:50
Surr: Dibromofluoromethane	89.3	H		70-130	%REC	1	5/8/2021 12:50
Surr: Toluene-d8	112	H		70-130	%REC	1	5/8/2021 12:50
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	16		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Sample ID: PH 5 @ 10'
Collection Date: 4/28/2021 10:32 AM

Work Order: 21050130
Lab ID: 21050130-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	U		3.3	11	mg/Kg-dry	1	5/7/2021 22:21
Surr: 4-Terphenyl-d14	60.3			33-111	%REC	1	5/7/2021 22:21
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	U		3.0	7.1	mg/Kg-dry	1	5/6/2021 04:45
Surr: Toluene-d8	93.5			71-123	%REC	1	5/6/2021 04:45
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.021	0.042	mg/Kg-dry	1	5/8/2021 13:06
Ethylbenzene	U	H	0.0089	0.042	mg/Kg-dry	1	5/8/2021 13:06
m,p-Xylene	U	H	0.056	0.085	mg/Kg-dry	1	5/8/2021 13:06
o-Xylene	U	H	0.016	0.042	mg/Kg-dry	1	5/8/2021 13:06
Toluene	U	H	0.012	0.042	mg/Kg-dry	1	5/8/2021 13:06
Xylenes, Total	U	H	0.056	0.13	mg/Kg-dry	1	5/8/2021 13:06
Surr: 1,2-Dichloroethane-d4	93.7	H		70-130	%REC	1	5/8/2021 13:06
Surr: 4-Bromofluorobenzene	102	H		70-130	%REC	1	5/8/2021 13:06
Surr: Dibromofluoromethane	91.6	H		70-130	%REC	1	5/8/2021 13:06
Surr: Toluene-d8	100	H		70-130	%REC	1	5/8/2021 13:06
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	17		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Sample ID: PH 6 @ 10'
Collection Date: 4/28/2021 11:05 AM

Work Order: 21050130
Lab ID: 21050130-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	4.3	J	3.4	12	mg/Kg-dry	1	5/8/2021 00:19
Surr: 4-Terphenyl-d14	61.6			33-111	%REC	1	5/8/2021 00:19
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	U		2.8	6.7	mg/Kg-dry	1	5/6/2021 08:34
Surr: Toluene-d8	94.8			71-123	%REC	1	5/6/2021 08:34
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.020	0.040	mg/Kg-dry	1	5/8/2021 13:22
Ethylbenzene	U	H	0.0085	0.040	mg/Kg-dry	1	5/8/2021 13:22
m,p-Xylene	U	H	0.054	0.081	mg/Kg-dry	1	5/8/2021 13:22
o-Xylene	U	H	0.016	0.040	mg/Kg-dry	1	5/8/2021 13:22
Toluene	U	H	0.011	0.040	mg/Kg-dry	1	5/8/2021 13:22
Xylenes, Total	U	H	0.054	0.12	mg/Kg-dry	1	5/8/2021 13:22
Surr: 1,2-Dichloroethane-d4	93.7	H		70-130	%REC	1	5/8/2021 13:22
Surr: 4-Bromofluorobenzene	103	H		70-130	%REC	1	5/8/2021 13:22
Surr: Dibromofluoromethane	89.9	H		70-130	%REC	1	5/8/2021 13:22
Surr: Toluene-d8	98.5	H		70-130	%REC	1	5/8/2021 13:22
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	17		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
 Project: TEP - Gov 298-26-1 - Pothole Inves.
 Sample ID: PH 7 @ 11'
 Collection Date: 4/28/2021 12:00 PM

Work Order: 21050130
 Lab ID: 21050130-07
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	500		6.4	22	mg/Kg-dry	1	5/8/2021 00:58
Surr: 4-Terphenyl-d14	52.2			33-111	%REC	1	5/8/2021 00:58
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	910		3.2	7.6	mg/Kg-dry	1	5/6/2021 08:57
Surr: Toluene-d8	143	S		71-123	%REC	1	5/6/2021 08:57
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.022	0.046	mg/Kg-dry	1	5/8/2021 13:39
Ethylbenzene	0.37	H	0.0097	0.046	mg/Kg-dry	1	5/8/2021 13:39
m,p-Xylene	11	H	0.061	0.092	mg/Kg-dry	1	5/8/2021 13:39
o-Xylene	2.3	H	0.018	0.046	mg/Kg-dry	1	5/8/2021 13:39
Toluene	0.15	H	0.012	0.046	mg/Kg-dry	1	5/8/2021 13:39
Xylenes, Total	13	H	0.061	0.14	mg/Kg-dry	1	5/8/2021 13:39
Surr: 1,2-Dichloroethane-d4	95.3	H		70-130	%REC	1	5/8/2021 13:39
Surr: 4-Bromofluorobenzene	87.7	H		70-130	%REC	1	5/8/2021 13:39
Surr: Dibromofluoromethane	94.2	H		70-130	%REC	1	5/8/2021 13:39
Surr: Toluene-d8	122	H		70-130	%REC	1	5/8/2021 13:39
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	18		0.10	0.10	% of sample	1	5/6/2021 15:27

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

ALS Group, USA

Date: 11-May-21

Client: Terra Energy Partners, LLC
Project: TEP - Gov 298-26-1 - Pothole Inves.
Sample ID: PH 8 @ 12'
Collection Date: 4/28/2021 12:40 PM

Work Order: 21050130
Lab ID: 21050130-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW3550 / 5/5/21		Analyst: JZB
DRO (C10-C28)	U		5.9	21	mg/Kg-dry	1	5/8/2021 01:38
Surr: 4-Terphenyl-d14	70.1			33-111	%REC	1	5/8/2021 01:38
GASOLINE RANGE ORGANICS BY GC-FID							
			Method: SW8015D		Prep: SW5035A / 5/4/21		Analyst: JZB
GRO (C6-C10)	U		3.0	7.3	mg/Kg-dry	1	5/6/2021 05:08
Surr: Toluene-d8	93.8			71-123	%REC	1	5/6/2021 05:08
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260C		Prep: SW5035A / 5/4/21		Analyst: MF
Benzene	U	H	0.021	0.044	mg/Kg-dry	1	5/8/2021 13:55
Ethylbenzene	0.13	H	0.0092	0.044	mg/Kg-dry	1	5/8/2021 13:55
m,p-Xylene	1.0	H	0.058	0.087	mg/Kg-dry	1	5/8/2021 13:55
o-Xylene	0.25	H	0.017	0.044	mg/Kg-dry	1	5/8/2021 13:55
Toluene	0.013	JH	0.012	0.044	mg/Kg-dry	1	5/8/2021 13:55
Xylenes, Total	1.2	H	0.058	0.13	mg/Kg-dry	1	5/8/2021 13:55
Surr: 1,2-Dichloroethane-d4	93.2	H		70-130	%REC	1	5/8/2021 13:55
Surr: 4-Bromofluorobenzene	101	H		70-130	%REC	1	5/8/2021 13:55
Surr: Dibromofluoromethane	94.0	H		70-130	%REC	1	5/8/2021 13:55
Surr: Toluene-d8	101	H		70-130	%REC	1	5/8/2021 13:55
MOISTURE							
			Method: SW3550C				Analyst: KTP
Moisture	21		0.10	0.10	% of sample	1	5/6/2021 15:27

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

Client: Terra Energy Partners, LLC

QC BATCH REPORT

Work Order: 21050130

Project: TEP - Gov 298-26-1 - Pothole Inves.

Batch ID: 176222

Instrument ID GC8

Method: SW8015D

MBLK				Sample ID: DBLKS1-176222-176222		Units: mg/Kg		Analysis Date: 5/5/2021 10:12 PM		
Client ID:		Run ID: GC8_210505B		SeqNo: 7368388		Prep Date: 5/5/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	10								
Surr: 4-Terphenyl-d14	2.203	0	3.33	0	66.2	33-111	0			

LCS				Sample ID: DLCSS1-176222-176222		Units: mg/Kg		Analysis Date: 5/5/2021 11:32 PM		
Client ID:		Run ID: GC8_210505B		SeqNo: 7368390		Prep Date: 5/5/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	326.3	10	333	0	98	64-130	0			
Surr: 4-Terphenyl-d14	1.855	0	3.33	0	55.7	33-111	0			

MS				Sample ID: 21050130-03A MS		Units: mg/Kg		Analysis Date: 5/6/2021 12:12 AM		
Client ID: PH 3 @ 3.5'		Run ID: GC8_210505B		SeqNo: 7368391		Prep Date: 5/5/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	285.1	9.8	325.7	0.8653	87.3	64-130	0			
Surr: 4-Terphenyl-d14	1.55	0	3.257	0	47.6	33-111	0			

MSD				Sample ID: 21050130-03A MSD		Units: mg/Kg		Analysis Date: 5/6/2021 12:52 AM		
Client ID: PH 3 @ 3.5'		Run ID: GC8_210505B		SeqNo: 7368392		Prep Date: 5/5/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	279.4	9.8	327.5	0.8653	85	64-130	285.1	2.03	30	
Surr: 4-Terphenyl-d14	1.553	0	3.275	0	47.4	33-111	1.55	0.148	30	

The following samples were analyzed in this batch:

21050130-01A	21050130-02A	21050130-03A
21050130-04A	21050130-05A	21050130-06A
21050130-07A	21050130-08A	

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

Client: Terra Energy Partners, LLC
 Work Order: 21050130
 Project: TEP - Gov 298-26-1 - Pothole Inves.

QC BATCH REPORT

Batch ID: **176156** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-176156-176156				Units: µg/Kg-dry		Analysis Date: 5/5/2021 07:46 AM		
Client ID:		Run ID: GC9_210504A				SeqNo: 7364529		Prep Date: 5/4/2021		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000	0	0	0		0			
<i>Surr: Toluene-d8</i>	<i>4984</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>99.7</i>	<i>71-123</i>	<i>0</i>			

LCS		Sample ID: LCS-176156-176156				Units: µg/Kg-dry		Analysis Date: 5/5/2021 10:03 AM		
Client ID:		Run ID: GC9_210504A				SeqNo: 7364536		Prep Date: 5/4/2021		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	216000	5,000	250000	0	86.4	71-123	0			
<i>Surr: Toluene-d8</i>	<i>4710</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>94.2</i>	<i>71-123</i>	<i>0</i>			

MS		Sample ID: 21050109-01A MS				Units: µg/Kg-dry		Analysis Date: 5/5/2021 09:18 AM		
Client ID:		Run ID: GC9_210504A				SeqNo: 7364533		Prep Date: 5/4/2021		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	311800	6,800	340800	0	91.5	71-123	0			
<i>Surr: Toluene-d8</i>	<i>6422</i>	<i>0</i>	<i>6817</i>	<i>0</i>	<i>94.2</i>	<i>71-123</i>	<i>0</i>			

MSD		Sample ID: 21050109-01A MSD				Units: µg/Kg-dry		Analysis Date: 5/5/2021 09:40 AM		
Client ID:		Run ID: GC9_210504A				SeqNo: 7364534		Prep Date: 5/4/2021		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	286000	6,800	338800	0	84.4	71-123	311800	8.63	30	
<i>Surr: Toluene-d8</i>	<i>6476</i>	<i>0</i>	<i>6777</i>	<i>0</i>	<i>95.6</i>	<i>71-123</i>	<i>6422</i>	<i>0.832</i>	<i>30</i>	

The following samples were analyzed in this batch:

21050130-01A	21050130-02A	21050130-03A
21050130-04A	21050130-05A	21050130-06A
21050130-07A	21050130-08A	

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

Client: Terra Energy Partners, LLC
 Work Order: 21050130
 Project: TEP - Gov 298-26-1 - Pothole Inves.

QC BATCH REPORT

Batch ID: **176155** Instrument ID **VMS8** Method: **SW8260C**

Sample ID: MBLK-176155-176155				Units: µg/Kg-dry			Analysis Date: 5/4/2021 08:36 PM			
Client ID:		Run ID: VMS8_210504B			SeqNo: 7364012		Prep Date: 5/4/2021		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	30								
Ethylbenzene	U	30								
m,p-Xylene	U	60								
o-Xylene	U	30								
Toluene	U	30								
Xylenes, Total	U	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1078</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1076</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>985.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1024</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			

LCS				Sample ID: LCS-176155-176155			Units: µg/Kg-dry		Analysis Date: 5/4/2021 07:31 PM		
Client ID:		Run ID: VMS8_210504B			SeqNo: 7364009		Prep Date: 5/4/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1018	30	1000	0	102	75-125	0				
Ethylbenzene	942	30	1000	0	94.2	75-125	0				
m,p-Xylene	1884	60	2000	0	94.2	80-125	0				
o-Xylene	937.5	30	1000	0	93.8	75-125	0				
Toluene	935	30	1000	0	93.5	70-125	0				
Xylenes, Total	2821	90	3000	0	94	75-125	0				
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130	0				
Surr: 4-Bromofluorobenzene	1002	0	1000	0	100	70-130	0				
Surr: Dibromofluoromethane	981	0	1000	0	98.1	70-130	0				
Surr: Toluene-d8	1018	0	1000	0	102	70-130	0				

MS				Sample ID: 21050109-01A MS				Units: µg/Kg-dry		Analysis Date: 5/5/2021 02:18 AM	
Client ID:		Run ID: VMS8_210504B			SeqNo: 7364033		Prep Date: 5/4/2021		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1491	41	1363	0	109	75-125	0				
Ethylbenzene	1316	41	1363	0	96.5	75-125	0				
m,p-Xylene	2631	82	2727	0	96.5	80-125	0				
o-Xylene	1283	41	1363	0	94.1	75-125	0				
Toluene	1322	41	1363	0	97	70-125	0				
Xylenes, Total	3914	120	4090	0	95.7	75-125	0				
Surr: 1,2-Dichloroethane-d4	1540	0	1363	0	113	70-130	0				
Surr: 4-Bromofluorobenzene	1379	0	1363	0	101	70-130	0				
Surr: Dibromofluoromethane	1362	0	1363	0	99.9	70-130	0				
Surr: Toluene-d8	1368	0	1363	0	100	70-130	0				

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

Client: Terra Energy Partners, LLC
Work Order: 21050130
Project: TEP - Gov 298-26-1 - Pothole Inves.

QC BATCH REPORT

Batch ID: **176155** Instrument ID **VMS8** Method: **SW8260C**

MSD				Sample ID: 21050109-01A MSD			Units: µg/Kg-dry		Analysis Date: 5/5/2021 02:34 AM	
Client ID:		Run ID: VMS8_210504B			SeqNo: 7364034		Prep Date: 5/4/2021		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1486	41	1355	0	110	75-125	1491	0.317	30	
Ethylbenzene	1355	41	1355	0	100	75-125	1316	2.92	30	
m,p-Xylene	2532	81	2711	0	93.4	80-125	2631	3.83	30	
o-Xylene	1244	41	1355	0	91.7	75-125	1283	3.12	30	
Toluene	1283	41	1355	0	94.7	70-125	1322	2.99	30	
Xylenes, Total	3775	120	4066	0	92.8	75-125	3914	3.6	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	1477	0	1355	0	109	70-130	1540	4.2	30	
<i>Surr: 4-Bromofluorobenzene</i>	1479	0	1355	0	109	70-130	1379	6.97	30	
<i>Surr: Dibromofluoromethane</i>	1342	0	1355	0	99	70-130	1362	1.45	30	
<i>Surr: Toluene-d8</i>	1295	0	1355	0	95.5	70-130	1368	5.49	30	

The following samples were analyzed in this batch:

21050130-01A	21050130-02A	21050130-03A
21050130-04A	21050130-05A	21050130-06A
21050130-07A	21050130-08A	

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

Client: Terra Energy Partners, LLC
 Work Order: 21050130
 Project: TEP - Gov 298-26-1 - Pothole Inves.

QC BATCH REPORT

Batch ID: **R315796** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R315796				Units: % of sample		Analysis Date: 5/6/2021 03:27 PM		
Client ID:		Run ID: MOIST_210506C				SeqNo: 7372535		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.10								

LCS		Sample ID: LCS-R315796				Units: % of sample		Analysis Date: 5/6/2021 03:27 PM		
Client ID:		Run ID: MOIST_210506C				SeqNo: 7372534		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP		Sample ID: 21050127-13A DUP				Units: % of sample		Analysis Date: 5/6/2021 03:27 PM		
Client ID:		Run ID: MOIST_210506C				SeqNo: 7372515		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	22.95	0.10	0	0	0	0-0	22.78	0.743	10	

DUP		Sample ID: 21050128-01B DUP				Units: % of sample		Analysis Date: 5/6/2021 03:27 PM		
Client ID:		Run ID: MOIST_210506C				SeqNo: 7372523		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.59	0.10	0	0	0	0-0	17.54	0.285	10	

The following samples were analyzed in this batch:

21050130-01A	21050130-02A	21050130-03A
21050130-04A	21050130-05A	21050130-06A
21050130-07A	21050130-08A	

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



ALS Laboratory Group

3352 128th Avenue, Holland, MI 49424
TF: 616 399 6070 FX: 616 399 6185

Chain-of-Custody

Form 202r8

WORKORDER #

21050130

PROJECT NAME		TEP - Gov 298-26-1 - Pothole Inves.		SAMPLER		Casey Richardson		DATE		4/30/2021		PAGE		1 of 1	
PROJECT No.				SITE ID		Gov 298-26-1		TURNAROUND		STD 5 Day		DISPOSAL		By Lab or Return to Client	
EDD FORMAT				PURCHASE ORDER				DRO				GRO			
COMPANY NAME		TEP Rocky Mountain LLC		BILL TO COMPANY		Terra Energy		BTEX				910-1 Metals			
SEND REPORT TO		Mike Gardner & Kris Rowe (HRL)		INVOICE ATTN TO		Mike Gardner & Tammy Gose		Semi Vols - PAH				SAR / EC / pH			
ADDRESS				ADDRESS		1058 CR 2015		ARSENIC							
CITY / STATE / ZIP				CITY / STATE / ZIP		Parachute CO, 81635									
PHONE				PHONE		970-263-2760									
FAX				FAX											
E-MAIL		mgardner@terraep.com krowe@hrlcomp.com		E-MAIL		mgardner@terraep.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
	PH 1 @ 8'	S	4/28/2021	8:30	1			X	X	X					
	PH 2 @ 8'	S	4/28/2021	8:48	1			X	X	X					
	PH 3 @ 3.5'	S	4/28/2021	9:00	1			X	X	X					
	PH 4 @ 8'	S	4/28/2021	9:31	1			X	X	X					
	PH 5 @ 10'	S	4/28/2021	10:32	1			X	X	X					
	PH 6 @ 10'	S	4/28/2021	11:05	1			X	X	X					
	PH 7 @ 11'	S	4/28/2021	12:00	1			X	X	X					
	PH 8 @ 12'	S	4/28/2021	12:40	1			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)	
	<input type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
<p>4.8°C 183</p> <p>Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035</p>		

SIGNATURE	PRINTED NAME	DATE	TIME
	Kris Rowe	4/30/2021	13:00
RECEIVED BY		4/30/21	1330
RECEIVED BY		4/30/21	1820
RECEIVED BY	KEITH WIERENKA	5/3/21	1000
RECEIVED BY			

Sample Receipt Checklist

Client Name: **TERRAENERGY**

Date/Time Received: **03-May-21 10:00**

Work Order: **21050130**

Received by: **KRW**

Checklist completed by **Keith Wierenga**

04-May-21

Reviewed by: **Chad Whelton**

04-May-21

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): **4.8/5.8 C** **IR3**

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: **5/4/2021 8:15:56 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: