

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Monday, May 7, 2018 10:29 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Subject: Spill overnite May 6-7, 2018

Follow Up Flag: Follow up
Flag Status: Completed

Quatro Oso E&P, LLC experienced a tank leak spilling a calculated 31 barrels at the LE Ranch 7-1.

As I am not in my office with access to files, I cannot submit C-108 yet, but will do so tonight.

Vacuum truck on way to pick up loose oil.

Needed to notice you all.

Rory McMinn
575/626-7100 Cell

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Monday, September 10, 2018 11:08 AM
To: Bratcher, Mike, EMNRD
Subject: LE Ranch 7-1 proposed remediation plan.
Attachments: L.E. Ranch #7-1 Remediation Plan Final.pdf; ATT00001.txt



PO Box 607 • Piedmont, OK 73078 • (405) 265-2400 • (405) 265-2466 Fax

August 14, 2018

Quatro Osos E&P, LLC
Rory McMinn
PO Box 1213
Roswell, New Mexico 88202-1213

Remediation Plan

L.E. Ranch #7-1
Sec. 7-T11S-R28E
Chaves County, New Mexico

Introduction

This plan presents the results of a study conducted at the L.E. Ranch #7-1 located in Section 7-T11S-R28E Chaves County, New Mexico. This plan was requested by Quatro Osos, due to the release of low gravity crude oil from a oil stock tank valve. A valve attached to one of the oil stock tanks within the tank battery failed causing low gravity crude oil to flow from the tank into the tank battery. After the oil breached the tank batteries secondary containment, the oil traveled south along the outside of the tank battery towards the wellhead onto the surrounding soils. The valve was immediately repaired by Quatro Osos once noticed. The impacted area was then partially excavated and place onto plastic for future remediation efforts. An open excavation was left open to allow the impact, that may continue to migrate with rainfall

events, to collect into the excavation and thus not containment any clean areas around the release area.

This plan will explain field investigations, sample and analysis methods, and plan recommendation for remediation/clean up.

Field Investigation and General Information

The released crude oil migrated down gradient saturating inside the northern half of the tank battery and then impacting an area of 60' x 10', at it's widest point.

The soils in the highly saturated area of the release are identified in the USDA Soil Survey of Chaves County New Mexico Southern Part Maps and are those of the Reeves Series of fine loams. The Reeves Series are well drained, moderately permeable soils that formed in calcareous and gypsiferous fine textured alluvium derived from gypsum beds. These soils are fine-loamy, gypsic, thermic Ustic Calcigypsid soils that are on hillslopes, plateaus, and basin floors.

On June 20, 2018, Clean Source Solutions, LLC (CSS) was notified by Quatro Osos and there insurance company about the release. CSS was requested to conduct a site visit and collect data to determine a conceptual remediation strategy, develop site-specific remedial action objectives (RAO's), and identify and evaluate alternatives for achieving the RAO's.

On July 6, 2018, CSS was on site to conduct the site visit and sampling event. Three (3) borings were advanced in the impacted area for delineation purposes. The soil borings were advanced within the impacted area to determine the extent of the release using NMOCD Guideline for Remediation of Leaks, Spills, and Releases. Samples were collected from four (4) different depths from each of the soil borings.

Sample collection depths were from surface, one foot (1'), two foot (2'), and three foot (3') bgs. Two (2) additional samples with collected away from the release site as background samples. Sample notations are as follows:

Numeric = surface
Numeric + A = one foot (1') bgs
Numeric + B = two foot (2') bgs
Numeric + C = three foot (3') bgs

Once sample collection was complete, the soil samples were placed in four ounce (4oz) glass jars, sealed, labeled and place on ice to chill. The samples were then sent to ALS Environmental Labs located in Houston, Texas. The samples were analyzed for Volatiles (BTEX) using EPA Method SW8260C, and Total Petroleum Hydrocarbon - Diesel Range Organics using Method TX1005. The results were received on July 20, 2018. (see attached ALS Environmental Analysis Lab Report)

The Site Assessment from the NMOCD guidelines for this location was a score of "0" on a scale of "0-20".

Depth to Ground Water > 100' (>170' below ground surface) Ranking Score = 0

Wellhead Protection Area > 1000' from any water source Ranking Score = 0

Distance to Surface Water Body > 1000' Ranking Score = 0

After review of the site and the analytical results, CSS was able to develop an RAO based on the understanding of the media, exposure pathways, and receptors that may be impacted.

Remediation Plan

CSS will excavate the impacted soils, within the release area, to a deep of three feet (3') bgs. Once the excavation is complete, the impacted soils that may be present

in the bottom of the excavation, will then be aerated/tilled to a depth of eight - ten inches (8"-10") bgs. After proper aeration/tilling has taken place, CSS will then treat the area with a solution of CS-3000. (CS-3000 offers the synergy of the surface cleaning power of biodegradable surfactants, powerful petroleum degrading bacterial endo-spores and additional Bacillus strains to digest secondary metabolites, including fatty acids. CS-3000 treats contaminants with eight (8) strains of Bacillus bacterial cells, along with nutrients, micronutrients and germination catalysts, necessary for complete biodegradation.) Once proper treatment of the bottom of the excavation is complete, CSS will place the excavated/impacted soil back into the excavation in one foot (1') lifts. Each lift will then be aerated/tilled and then treated with the same solution of CS-3000. This process will continue throughout the entire release area until all impacted soils have been properly treated/remediated and all excavated areas returned to it's original grade. After approximately forty-five to sixty (45-60) days after remediation processes are completed, CSS will preform a confirmation sampling event to ensure that all originally impacted soils have been successfully remediated. Once soils are confirmed remediated by lab analysis, CSS will provide a complete report outlining all steps taken during the process of the RAO. This RAO will ensure a more immediate remediation for the impacted soils, allowing the area to return to it's original vegetative stage much sooner than typical methods. Thus, resulting in an overall less impact to the entire surrounding environment.

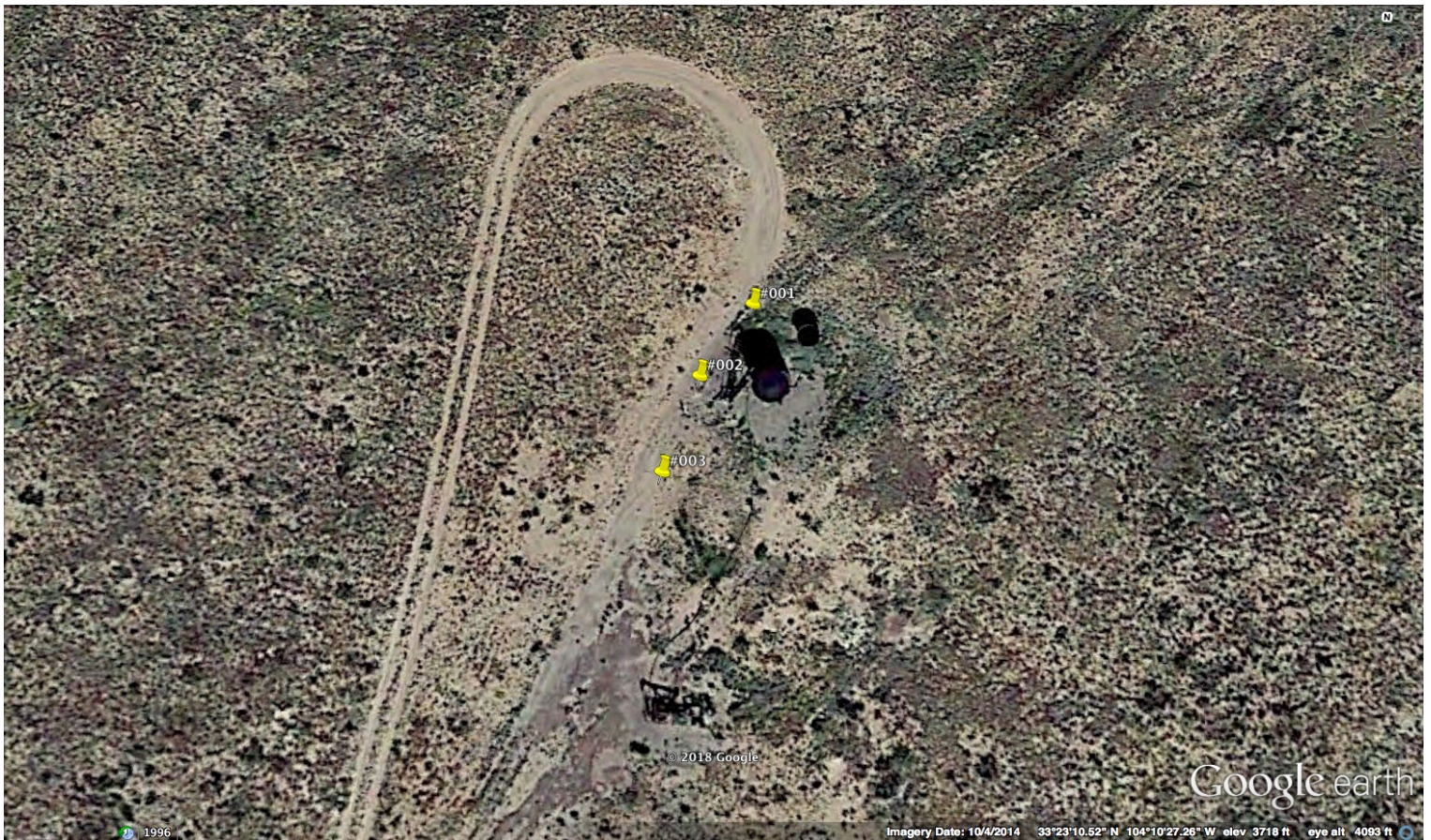
Please know that we very much look forward to working with you on this project and will plan on following up with you later this week. However, if you have any immediate questions, please feel free to contact our office at 405.265.2400.

Sincerely,

Chris Dunn
Chief Executive Officer



**Quatro Osos E&P, LLC
L.E. Ranch #7-1
Sec. 7-T11S-R28E
Chaves County, New Mexico**





L.E. RANCH #7-1

Soil boring GPS locations for delineation

Sec. 7-T11S-R28E, Chaves County, New Mexico

<u>GPS Data Format</u>	<u>GPS Location</u>
Soil Boring #001	33deg23'10.90"N 104deg10'27.15"W
Soil Boring #002	33deg23'10.64"N 104deg10'27.33"W
Soil Boring #003	33deg23'10.31"N 104deg10'27.44"W



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

July 20, 2018

Chris Dunn
Clean Source Solutions
PO Box 607
Piedmont, OK 73078

Work Order: **HS18070454**

Laboratory Results for: **LE RANCH #7-1**

Dear Chris,

ALS Environmental received 14 sample(s) on Jul 11, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

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

Sincerely,

Generated By: JUMOKE.LAWAL
Nicole Edwards
Project Manager

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18070454-01	001	Soil		06-Jul-2018 12:15	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-02	001A	Soil		06-Jul-2018 12:18	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-03	001B	Soil		06-Jul-2018 12:20	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-04	001C	Soil		06-Jul-2018 12:33	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-05	002	Soil		06-Jul-2018 12:25	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-06	002A	Soil		06-Jul-2018 12:27	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-07	002B	Soil		06-Jul-2018 12:30	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-08	002C	Soil		06-Jul-2018 12:35	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-09	003	Soil		06-Jul-2018 12:40	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-10	003A	Soil		06-Jul-2018 12:41	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-11	003B	Soil		06-Jul-2018 12:42	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-12	003C	Soil		06-Jul-2018 12:44	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-13	BACKGROUND 1	Soil		06-Jul-2018 12:46	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-14	BACKGROUND 2	Soil		06-Jul-2018 12:50	11-Jul-2018 08:25	<input type="checkbox"/>

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

CASE NARRATIVE

GC Semivolatiles by Method TX1005**Batch ID: 130378****Sample ID: 001 (HS18070454-01)**

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 001A (HS18070454-02)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 002 (HS18070454-05)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 002A (HS18070454-06)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003 (HS18070454-09)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003A (HS18070454-10)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003C (HS18070454-12MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: 003C (HS18070454-12MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GCMS Volatiles by Method SW8260**Batch ID: R319840**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R319845**Sample ID: HS18070571-11MS**

- MS and MSD are for an unrelated sample

Batch ID: R319859**Sample ID: 001A (HS18070454-02MS)**

- MS/MSD failed QC limits for compounds.

Batch ID: R319934

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 001
Collection Date: 06-Jul-2018 12:15

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2500	ug/Kg	500	17-Jul-2018 05:49
Ethylbenzene	17,000		2500	ug/Kg	500	17-Jul-2018 05:49
m,p-Xylene	9,500		5000	ug/Kg	500	17-Jul-2018 05:49
o-Xylene	4,800		2500	ug/Kg	500	17-Jul-2018 05:49
Toluene	3,600		2500	ug/Kg	500	17-Jul-2018 05:49
Xylenes, Total	14,000		2500	ug/Kg	500	17-Jul-2018 05:49
Surr: 1,2-Dichloroethane-d4	96.7		70-126	%REC	500	17-Jul-2018 05:49
Surr: 4-Bromofluorobenzene	101		70-130	%REC	500	17-Jul-2018 05:49
Surr: Dibromofluoromethane	93.1		70-130	%REC	500	17-Jul-2018 05:49
Surr: Toluene-d8	95.2		70-130	%REC	500	17-Jul-2018 05:49
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	27,000		2500	mg/Kg	50	19-Jul-2018 11:06
>nC28 to nC35	4,400		2500	mg/Kg	50	19-Jul-2018 11:06
Total Petroleum Hydrocarbon	34,500		2500	mg/Kg	50	19-Jul-2018 11:06
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 11:06
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 11:06

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001A
 Collection Date: 06-Jul-2018 12:18

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2400	ug/Kg	500	17-Jul-2018 06:12
Ethylbenzene	170,000		24000	ug/Kg	5000	17-Jul-2018 15:07
m,p-Xylene	71,000		4900	ug/Kg	500	17-Jul-2018 06:12
o-Xylene	38,000		2400	ug/Kg	500	17-Jul-2018 06:12
Toluene	39,000		2400	ug/Kg	500	17-Jul-2018 06:12
Xylenes, Total	110,000		2400	ug/Kg	500	17-Jul-2018 06:12
Surr: 1,2-Dichloroethane-d4	98.3		70-126	%REC	500	17-Jul-2018 06:12
Surr: 1,2-Dichloroethane-d4	121		70-126	%REC	5000	17-Jul-2018 15:07
Surr: 4-Bromofluorobenzene	105		70-130	%REC	500	17-Jul-2018 06:12
Surr: 4-Bromofluorobenzene	124		70-130	%REC	5000	17-Jul-2018 15:07
Surr: Dibromofluoromethane	93.2		70-130	%REC	500	17-Jul-2018 06:12
Surr: Dibromofluoromethane	116		70-130	%REC	5000	17-Jul-2018 15:07
Surr: Toluene-d8	95.2		70-130	%REC	500	17-Jul-2018 06:12
Surr: Toluene-d8	126		70-130	%REC	5000	17-Jul-2018 15:07
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	18,000		1900	mg/Kg	40	19-Jul-2018 11:35
>nC28 to nC35	2,500		1900	mg/Kg	40	19-Jul-2018 11:35
Total Petroleum Hydrocarbon	26,000		1900	mg/Kg	40	19-Jul-2018 11:35
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 11:35
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 11:35

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001B
 Collection Date: 06-Jul-2018 12:20

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	17-Jul-2018 11:12
Ethylbenzene	11		5.0	ug/Kg	1	17-Jul-2018 11:12
m,p-Xylene	ND		9.9	ug/Kg	1	17-Jul-2018 11:12
o-Xylene	6.5		5.0	ug/Kg	1	17-Jul-2018 11:12
Toluene	ND		5.0	ug/Kg	1	17-Jul-2018 11:12
Xylenes, Total	14		5.0	ug/Kg	1	17-Jul-2018 11:12
Surr: 1,2-Dichloroethane-d4	91.9		70-126	%REC	1	17-Jul-2018 11:12
Surr: 4-Bromofluorobenzene	106		70-130	%REC	1	17-Jul-2018 11:12
Surr: Dibromofluoromethane	103		70-130	%REC	1	17-Jul-2018 11:12
Surr: Toluene-d8	104		70-130	%REC	1	17-Jul-2018 11:12
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	ND		49	mg/Kg	1	16-Jul-2018 22:33
>nC28 to nC35	ND		49	mg/Kg	1	16-Jul-2018 22:33
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	16-Jul-2018 22:33
Surr: 2-Fluorobiphenyl	80.3		70-130	%REC	1	16-Jul-2018 22:33
Surr: Trifluoromethyl benzene	77.9		70-130	%REC	1	16-Jul-2018 22:33

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 001C
Collection Date: 06-Jul-2018 12:33

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Ethylbenzene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
m,p-Xylene	ND		10	ug/Kg	1	17-Jul-2018 10:48
o-Xylene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Toluene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Xylenes, Total	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Surr: 1,2-Dichloroethane-d4	92.7		70-126	%REC	1	17-Jul-2018 10:48
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	17-Jul-2018 10:48
Surr: Dibromofluoromethane	100		70-130	%REC	1	17-Jul-2018 10:48
Surr: Toluene-d8	105		70-130	%REC	1	17-Jul-2018 10:48
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	65		49	mg/Kg	1	16-Jul-2018 23:02
>nC28 to nC35	ND		49	mg/Kg	1	16-Jul-2018 23:02
Total Petroleum Hydrocarbon	65.0		49	mg/Kg	1	16-Jul-2018 23:02
Surr: 2-Fluorobiphenyl	70.7		70-130	%REC	1	16-Jul-2018 23:02
Surr: Trifluoromethyl benzene	78.0		70-130	%REC	1	16-Jul-2018 23:02

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002
 Collection Date: 06-Jul-2018 12:25

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2500	ug/Kg	500	17-Jul-2018 13:23
Ethylbenzene	25,000		2500	ug/Kg	500	17-Jul-2018 13:23
m,p-Xylene	12,000		5000	ug/Kg	500	17-Jul-2018 13:23
o-Xylene	5,400		2500	ug/Kg	500	17-Jul-2018 13:23
Toluene	19,000		2500	ug/Kg	500	17-Jul-2018 13:23
Xylenes, Total	17,000		2500	ug/Kg	500	17-Jul-2018 13:23
Surr: 1,2-Dichloroethane-d4	123		70-126	%REC	500	17-Jul-2018 13:23
Surr: 4-Bromofluorobenzene	123		70-130	%REC	500	17-Jul-2018 13:23
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 13:23
Surr: Toluene-d8	122		70-130	%REC	500	17-Jul-2018 13:23
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	21,000		2500	mg/Kg	50	19-Jul-2018 12:04
>nC28 to nC35	3,700		2500	mg/Kg	50	19-Jul-2018 12:04
Total Petroleum Hydrocarbon	27,200		2500	mg/Kg	50	19-Jul-2018 12:04
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 12:04
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 12:04

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002A
 Collection Date: 06-Jul-2018 12:27

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	41,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Ethylbenzene	590,000		24000	ug/Kg	5000	17-Jul-2018 16:26
m,p-Xylene	250,000		48000	ug/Kg	5000	17-Jul-2018 16:26
o-Xylene	110,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Toluene	490,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Xylenes, Total	360,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Surr: 1,2-Dichloroethane-d4	120		70-126	%REC	5000	17-Jul-2018 16:26
Surr: 4-Bromofluorobenzene	123		70-130	%REC	5000	17-Jul-2018 16:26
Surr: Dibromofluoromethane	117		70-130	%REC	5000	17-Jul-2018 16:26
Surr: Toluene-d8	125		70-130	%REC	5000	17-Jul-2018 16:26
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 13-Jul-2018	Analyst: MBG
>nC12 to nC28	14,000		2000	mg/Kg	40	19-Jul-2018 11:06
>nC28 to nC35	2,400		2000	mg/Kg	40	19-Jul-2018 11:06
Total Petroleum Hydrocarbon	22,100		2000	mg/Kg	40	19-Jul-2018 11:06
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 11:06
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 11:06

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002B
 Collection Date: 06-Jul-2018 12:30

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	7,500		2400	ug/Kg	500	17-Jul-2018 14:15
Ethylbenzene	210,000		24000	ug/Kg	5000	17-Jul-2018 16:53
m,p-Xylene	80,000		4800	ug/Kg	500	17-Jul-2018 14:15
o-Xylene	38,000		2400	ug/Kg	500	17-Jul-2018 14:15
Toluene	150,000		24000	ug/Kg	5000	17-Jul-2018 16:53
Xylenes, Total	120,000		2400	ug/Kg	500	17-Jul-2018 14:15
Surr: 1,2-Dichloroethane-d4	116		70-126	%REC	500	17-Jul-2018 14:15
Surr: 1,2-Dichloroethane-d4	122		70-126	%REC	5000	17-Jul-2018 16:53
Surr: 4-Bromofluorobenzene	120		70-130	%REC	5000	17-Jul-2018 16:53
Surr: 4-Bromofluorobenzene	126		70-130	%REC	500	17-Jul-2018 14:15
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 14:15
Surr: Dibromofluoromethane	116		70-130	%REC	5000	17-Jul-2018 16:53
Surr: Toluene-d8	124		70-130	%REC	5000	17-Jul-2018 16:53
Surr: Toluene-d8	125		70-130	%REC	500	17-Jul-2018 14:15
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	6,600		470	mg/Kg	10	17-Jul-2018 00:29
>nC28 to nC35	1,000		470	mg/Kg	10	17-Jul-2018 00:29
Total Petroleum Hydrocarbon	9,500		470	mg/Kg	10	17-Jul-2018 00:29
Surr: 2-Fluorobiphenyl	118		70-130	%REC	10	17-Jul-2018 00:29
Surr: Trifluoromethyl benzene	122		70-130	%REC	10	17-Jul-2018 00:29

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002C
 Collection Date: 06-Jul-2018 12:35

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		230	ug/Kg	50	17-Jul-2018 12:32
Ethylbenzene	480		230	ug/Kg	50	17-Jul-2018 12:32
m,p-Xylene	ND		460	ug/Kg	50	17-Jul-2018 12:32
o-Xylene	ND		230	ug/Kg	50	17-Jul-2018 12:32
Toluene	350		230	ug/Kg	50	17-Jul-2018 12:32
Xylenes, Total	ND		230	ug/Kg	50	17-Jul-2018 12:32
Surr: 1,2-Dichloroethane-d4	102		70-126	%REC	50	17-Jul-2018 12:32
Surr: 4-Bromofluorobenzene	102		70-130	%REC	50	17-Jul-2018 12:32
Surr: Dibromofluoromethane	95.1		70-130	%REC	50	17-Jul-2018 12:32
Surr: Toluene-d8	93.4		70-130	%REC	50	17-Jul-2018 12:32
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	51		49	mg/Kg	1	17-Jul-2018 00:58
>nC28 to nC35	ND		49	mg/Kg	1	17-Jul-2018 00:58
Total Petroleum Hydrocarbon	51.0		49	mg/Kg	1	17-Jul-2018 00:58
Surr: 2-Fluorobiphenyl	86.0		70-130	%REC	1	17-Jul-2018 00:58
Surr: Trifluoromethyl benzene	90.4		70-130	%REC	1	17-Jul-2018 00:58

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 003
Collection Date: 06-Jul-2018 12:40

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2400	ug/Kg	500	17-Jul-2018 14:41
Ethylbenzene	28,000		2400	ug/Kg	500	17-Jul-2018 14:41
m,p-Xylene	14,000		4800	ug/Kg	500	17-Jul-2018 14:41
o-Xylene	7,000		2400	ug/Kg	500	17-Jul-2018 14:41
Toluene	10,000		2400	ug/Kg	500	17-Jul-2018 14:41
Xylenes, Total	21,000		2400	ug/Kg	500	17-Jul-2018 14:41
Surr: 1,2-Dichloroethane-d4	118		70-126	%REC	500	17-Jul-2018 14:41
Surr: 4-Bromofluorobenzene	126		70-130	%REC	500	17-Jul-2018 14:41
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 14:41
Surr: Toluene-d8	124		70-130	%REC	500	17-Jul-2018 14:41
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	25,000		2400	mg/Kg	50	19-Jul-2018 11:35
>nC28 to nC35	3,900		2400	mg/Kg	50	19-Jul-2018 11:35
Total Petroleum Hydrocarbon	31,500		2400	mg/Kg	50	19-Jul-2018 11:35
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 11:35
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 11:35

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 003A
 Collection Date: 06-Jul-2018 12:41

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-10
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		240	ug/Kg	50	17-Jul-2018 12:57
Ethylbenzene	980		240	ug/Kg	50	17-Jul-2018 12:57
m,p-Xylene	ND		490	ug/Kg	50	17-Jul-2018 12:57
o-Xylene	ND		240	ug/Kg	50	17-Jul-2018 12:57
Toluene	400		240	ug/Kg	50	17-Jul-2018 12:57
Xylenes, Total	ND		240	ug/Kg	50	17-Jul-2018 12:57
Surr: 1,2-Dichloroethane-d4	119		70-126	%REC	50	17-Jul-2018 12:57
Surr: 4-Bromofluorobenzene	123		70-130	%REC	50	17-Jul-2018 12:57
Surr: Dibromofluoromethane	110		70-130	%REC	50	17-Jul-2018 12:57
Surr: Toluene-d8	114		70-130	%REC	50	17-Jul-2018 12:57
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	10,000		1900	mg/Kg	40	19-Jul-2018 12:04
>nC28 to nC35	2,300		1900	mg/Kg	40	19-Jul-2018 12:04
Total Petroleum Hydrocarbon	12,300		1900	mg/Kg	40	19-Jul-2018 12:04
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 12:04
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 12:04

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 003B
Collection Date: 06-Jul-2018 12:42

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Ethylbenzene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
m,p-Xylene	ND		10	ug/Kg	1	18-Jul-2018 01:03
o-Xylene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Toluene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Xylenes, Total	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Surr: 1,2-Dichloroethane-d4	96.6		70-126	%REC	1	18-Jul-2018 01:03
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	18-Jul-2018 01:03
Surr: Dibromofluoromethane	102		70-130	%REC	1	18-Jul-2018 01:03
Surr: Toluene-d8	103		70-130	%REC	1	18-Jul-2018 01:03
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	5,600		490	mg/Kg	10	17-Jul-2018 03:24
>nC28 to nC35	1,000		490	mg/Kg	10	17-Jul-2018 03:24
Total Petroleum Hydrocarbon	6,600		490	mg/Kg	10	17-Jul-2018 03:24
Surr: 2-Fluorobiphenyl	103		70-130	%REC	10	17-Jul-2018 03:24
Surr: Trifluoromethyl benzene	83.7		70-130	%REC	10	17-Jul-2018 03:24

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 003C
 Collection Date: 06-Jul-2018 12:44

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Ethylbenzene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
m,p-Xylene	ND		9.7	ug/Kg	1	18-Jul-2018 00:39
o-Xylene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Toluene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Xylenes, Total	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	18-Jul-2018 00:39
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	18-Jul-2018 00:39
Surr: Dibromofluoromethane	103		70-130	%REC	1	18-Jul-2018 00:39
Surr: Toluene-d8	104		70-130	%REC	1	18-Jul-2018 00:39
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	7,200		470	mg/Kg	10	18-Jul-2018 12:23
>nC28 to nC35	1,200		470	mg/Kg	10	18-Jul-2018 12:23
Total Petroleum Hydrocarbon	8,400		470	mg/Kg	10	18-Jul-2018 12:23
Surr: 2-Fluorobiphenyl	120		70-130	%REC	10	18-Jul-2018 12:23
Surr: Trifluoromethyl benzene	75.4		70-130	%REC	10	18-Jul-2018 12:23

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: BACKGROUND 1
Collection Date: 06-Jul-2018 12:46

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Ethylbenzene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
m,p-Xylene	ND		10	ug/Kg	1	18-Jul-2018 00:16
o-Xylene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Toluene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Xylenes, Total	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Surr: 1,2-Dichloroethane-d4	96.9		70-126	%REC	1	18-Jul-2018 00:16
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	18-Jul-2018 00:16
Surr: Dibromofluoromethane	101		70-130	%REC	1	18-Jul-2018 00:16
Surr: Toluene-d8	102		70-130	%REC	1	18-Jul-2018 00:16
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	ND		48	mg/Kg	1	17-Jul-2018 03:53
>nC28 to nC35	ND		48	mg/Kg	1	17-Jul-2018 03:53
Total Petroleum Hydrocarbon	ND		48	mg/Kg	1	17-Jul-2018 03:53
Surr: 2-Fluorobiphenyl	83.1		70-130	%REC	1	17-Jul-2018 03:53
Surr: Trifluoromethyl benzene	71.4		70-130	%REC	1	17-Jul-2018 03:53

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: BACKGROUND 2
 Collection Date: 06-Jul-2018 12:50

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Ethylbenzene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
m,p-Xylene	ND		9.3	ug/Kg	1	17-Jul-2018 11:36
o-Xylene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Toluene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Xylenes, Total	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Surr: 1,2-Dichloroethane-d4	99.6		70-126	%REC	1	17-Jul-2018 11:36
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	17-Jul-2018 11:36
Surr: Dibromofluoromethane	104		70-130	%REC	1	17-Jul-2018 11:36
Surr: Toluene-d8	103		70-130	%REC	1	17-Jul-2018 11:36
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	ND		48	mg/Kg	1	17-Jul-2018 04:22
>nC28 to nC35	ND		48	mg/Kg	1	17-Jul-2018 04:22
Total Petroleum Hydrocarbon	ND		48	mg/Kg	1	17-Jul-2018 04:22
Surr: 2-Fluorobiphenyl	74.9		70-130	%REC	1	17-Jul-2018 04:22
Surr: Trifluoromethyl benzene	70.6		70-130	%REC	1	17-Jul-2018 04:22

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

ALS Group Houston, Corp

Date: 20-Jul-18

WEIGHT LOG

Client: Clean Source Solutions

Project: LE RANCH #7-1

WorkOrder: HS18070454

Batch ID: 2524 Method: VOLATILES BY SW8260C

SampleID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18070454-01	1	5.066 (g)	5 (mL)	0.99	Bulk (5030B)
HS18070454-02	1	5.114 (g)	5 (mL)	0.98	Bulk (5030B)
HS18070454-03	1	5.069 (g)	5 (mL)	0.99	Bulk (5030B)
HS18070454-04	1	4.959 (g)	5 (mL)	1.01	Bulk (5030B)
HS18070454-05	1	5.006 (g)	5 (mL)	1	Bulk (5030B)
HS18070454-06	1	5.202 (g)	5 (mL)	0.96	Bulk (5030B)
HS18070454-07	1	5.15 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-08	1	5.35 (g)	5 (mL)	0.93	Bulk (5030B)
HS18070454-09	1	5.141 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-10	1	5.108 (g)	5 (mL)	0.98	Bulk (5030B)
HS18070454-11	1	4.99 (g)	5 (mL)	1	Bulk (5030B)
HS18070454-12	1	5.156 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-13	1	4.957 (g)	5 (mL)	1.01	Bulk (5030B)
HS18070454-14	1	5.392 (g)	5 (mL)	0.93	Bulk (5030B)

Batch ID: 130378 Method: TEXAS TPH BY TX1005 Prep: TX 1005_S PR

SampleID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18070454-01	1	10.09	10 (mL)	0.9911
HS18070454-02	1	10.38	10 (mL)	0.9634
HS18070454-03	1	10.29	10 (mL)	0.9718
HS18070454-04	1	10.15	10 (mL)	0.9852
HS18070454-05	1	10.17	10 (mL)	0.9833
HS18070454-06	1	10.23	10 (mL)	0.9775
HS18070454-07	1	10.74	10 (mL)	0.9311
HS18070454-08	1	10.19	10 (mL)	0.9814
HS18070454-09	1	10.27	10 (mL)	0.9737
HS18070454-10	1	10.44	10 (mL)	0.9579
HS18070454-11	1	10.16	10 (mL)	0.9843
HS18070454-12	1	10.69	10 (mL)	0.9355
HS18070454-13	1	10.32	10 (mL)	0.969
HS18070454-14	1	10.45	10 (mL)	0.9569

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 130378 Test Name : TEXAS TPH BY TX1005 Matrix: Soil						
HS18070454-01	001	06 Jul 2018 12:15		13 Jul 2018 10:44	19 Jul 2018 11:06	50
HS18070454-02	001A	06 Jul 2018 12:18		13 Jul 2018 10:44	19 Jul 2018 11:35	40
HS18070454-03	001B	06 Jul 2018 12:20		13 Jul 2018 10:44	16 Jul 2018 22:33	1
HS18070454-04	001C	06 Jul 2018 12:33		13 Jul 2018 10:44	16 Jul 2018 23:02	1
HS18070454-05	002	06 Jul 2018 12:25		13 Jul 2018 10:44	19 Jul 2018 12:04	50
HS18070454-06	002A	06 Jul 2018 12:27		13 Jul 2018 10:44	19 Jul 2018 11:06	40
HS18070454-07	002B	06 Jul 2018 12:30		13 Jul 2018 10:44	17 Jul 2018 00:29	10
HS18070454-08	002C	06 Jul 2018 12:35		13 Jul 2018 10:44	17 Jul 2018 00:58	1
HS18070454-09	003	06 Jul 2018 12:40		13 Jul 2018 10:44	19 Jul 2018 11:35	50
HS18070454-10	003A	06 Jul 2018 12:41		13 Jul 2018 10:44	19 Jul 2018 12:04	40
HS18070454-11	003B	06 Jul 2018 12:42		13 Jul 2018 10:44	17 Jul 2018 03:24	10
HS18070454-12	003C	06 Jul 2018 12:44		13 Jul 2018 10:44	18 Jul 2018 12:23	10
HS18070454-13	BACKGROUND 1	06 Jul 2018 12:46		13 Jul 2018 10:44	17 Jul 2018 03:53	1
HS18070454-14	BACKGROUND 2	06 Jul 2018 12:50		13 Jul 2018 10:44	17 Jul 2018 04:22	1
Batch ID R319840 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-01	001	06 Jul 2018 12:15			17 Jul 2018 05:49	500
HS18070454-02	001A	06 Jul 2018 12:18			17 Jul 2018 06:12	500
Batch ID R319845 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-03	001B	06 Jul 2018 12:20			17 Jul 2018 11:12	1
HS18070454-04	001C	06 Jul 2018 12:33			17 Jul 2018 10:48	1
HS18070454-14	BACKGROUND 2	06 Jul 2018 12:50			17 Jul 2018 11:36	1
Batch ID R319859 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-02	001A	06 Jul 2018 12:18			17 Jul 2018 15:07	5000
HS18070454-05	002	06 Jul 2018 12:25			17 Jul 2018 13:23	500
HS18070454-06	002A	06 Jul 2018 12:27			17 Jul 2018 16:26	5000
HS18070454-07	002B	06 Jul 2018 12:30			17 Jul 2018 16:53	5000
HS18070454-07	002B	06 Jul 2018 12:30			17 Jul 2018 14:15	500
HS18070454-08	002C	06 Jul 2018 12:35			17 Jul 2018 12:32	50
HS18070454-09	003	06 Jul 2018 12:40			17 Jul 2018 14:41	500
HS18070454-10	003A	06 Jul 2018 12:41			17 Jul 2018 12:57	50
Batch ID R319934 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-11	003B	06 Jul 2018 12:42			18 Jul 2018 01:03	1
HS18070454-12	003C	06 Jul 2018 12:44			18 Jul 2018 00:39	1
HS18070454-13	BACKGROUND 1	06 Jul 2018 12:46			18 Jul 2018 00:16	1

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: 130378		Instrument: FID-10		Method: TX1005					
MBLK	Sample ID: MBLK-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 17:39					
Client ID:	Run ID: FID-10_319892	SeqNo: 4652676		PrepDate: 13-Jul-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
>nC12 to nC28	ND	50							
>nC28 to nC35	ND	50							
Total Petroleum Hydrocarbon	ND	50							
Surr: 2-Fluorobiphenyl	20.23	0	25	0	80.9	70 - 130			
Surr: Trifluoromethyl benzene	18.22	0	25	0	72.9	70 - 130			
LCS	Sample ID: LCS-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 18:08					
Client ID:	Run ID: FID-10_319892	SeqNo: 4652677		PrepDate: 13-Jul-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
>nC12 to nC28	223.2	50	250	0	89.3	75 - 125			
Surr: 2-Fluorobiphenyl	21.46	0	25	0	85.9	70 - 130			
Surr: Trifluoromethyl benzene	22.59	0	25	0	90.4	70 - 130			
LCSD	Sample ID: LCSD-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 18:38					
Client ID:	Run ID: FID-10_319892	SeqNo: 4652678		PrepDate: 13-Jul-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
>nC12 to nC28	225.4	50	250	0	90.2	75 - 125	223.2	0.968	20
Surr: 2-Fluorobiphenyl	19.85	0	25	0	79.4	70 - 130	21.46	7.8	20
Surr: Trifluoromethyl benzene	21.63	0	25	0	86.5	70 - 130	22.59	4.33	20
MS	Sample ID: HS18070454-12MS	Units: mg/Kg		Analysis Date: 16-Jul-2018 19:36					
Client ID: 003C	Run ID: FID-10_319892	SeqNo: 4652680		PrepDate: 13-Jul-2018		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
>nC12 to nC28	3284	48	237.6	3958	-284	75 - 125			SEO
Surr: 2-Fluorobiphenyl	21.13	0	23.76	0	88.9	70 - 130			
Surr: Trifluoromethyl benzene	17.1	0	23.76	0	71.9	70 - 130			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions

Project: LE RANCH #7-1

WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: 130378		Instrument: FID-10		Method: TX1005	
MSD	Sample ID: HS18070454-12MSD		Units: mg/Kg		Analysis Date: 16-Jul-2018 20:06
Client ID: 003C	Run ID: FID-10_319892		SeqNo: 4652681		PrepDate: 13-Jul-2018 DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
>nC12 to nC28	3325	46	230.4	3958 -275	75 - 125 3284 1.26 20 SEO
Surr: 2-Fluorobiphenyl	21.3	0	23.04	0 92.4	70 - 130 21.13 0.794 20
Surr: Trifluoromethyl benzene	16.76	0	23.04	0 72.8	70 - 130 17.1 1.96 20
The following samples were analyzed in this batch:					
HS18070454-01		HS18070454-02		HS18070454-03	
HS18070454-05		HS18070454-06		HS18070454-07	
HS18070454-09		HS18070454-10		HS18070454-11	
HS18070454-13		HS18070454-14		HS18070454-12	

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319840		Instrument: VOA8		Method: SW8260					
MBLK	Sample ID: MBLKW1-071618	Units: ug/Kg		Analysis Date: 16-Jul-2018 23:19					
Client ID:	Run ID: VOA8_319840	SeqNo: 4651434		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	250							
Ethylbenzene	ND	250							
m,p-Xylene	ND	500							
o-Xylene	ND	250							
Toluene	ND	250							
Xylenes, Total	ND	250							
Surr: 1,2-Dichloroethane-d4	2505	0	2500	0	100	76 - 125			
Surr: 4-Bromofluorobenzene	2133	0	2500	0	85.3	80 - 120			
Surr: Dibromofluoromethane	2393	0	2500	0	95.7	80 - 119			
Surr: Toluene-d8	2499	0	2500	0	99.9	81 - 118			

LCS	Sample ID: VLCSW1-071618	Units: ug/Kg		Analysis Date: 16-Jul-2018 22:29					
Client ID:	Run ID: VOA8_319840	SeqNo: 4651433		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	48.97	5.0	50	0	97.9	75 - 124			
Ethylbenzene	47.99	5.0	50	0	96.0	70 - 123			
m,p-Xylene	96.1	10	100	0	96.1	77 - 125			
o-Xylene	47.62	5.0	50	0	95.2	78 - 122			
Toluene	47.72	5.0	50	0	95.4	76 - 122			
Xylenes, Total	143.7	5.0	150	0	95.8	77 - 128			
Surr: 1,2-Dichloroethane-d4	50.1	0	50	0	100	76 - 125			
Surr: 4-Bromofluorobenzene	49.59	0	50	0	99.2	80 - 120			
Surr: Dibromofluoromethane	47.09	0	50	0	94.2	80 - 119			
Surr: Toluene-d8	47.59	0	50	0	95.2	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319840		Instrument: VOA8		Method: SW8260						
MS		Sample ID: HS18070496-04MS		Units: ug/Kg		Analysis Date: 17-Jul-2018 05:01				
Client ID:		Run ID: VOA8_319840		SeqNo: 4651448		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4587	410	4100	486.4	100	70 - 130				
Ethylbenzene	5660	410	4100	1613	98.7	70 - 130				
m,p-Xylene	8242	820	8200	0	101	70 - 130				
o-Xylene	4132	410	4100	0	101	70 - 130				
Toluene	3907	410	4100	0	95.3	70 - 130				
Xylenes, Total	12370	410	12300	0	101	70 - 130				
Surr: 1,2-Dichloroethane-d4	3381	0	4100	0	82.5	70 - 126				
Surr: 4-Bromofluorobenzene	4340	0	4100	0	106	70 - 130				
Surr: Dibromofluoromethane	3907	0	4100	0	95.3	70 - 130				
Surr: Toluene-d8	3795	0	4100	0	92.6	70 - 130				

MSD		Sample ID: HS18070496-04MSD		Units: ug/Kg		Analysis Date: 17-Jul-2018 05:25				
Client ID:		Run ID: VOA8_319840		SeqNo: 4651449		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	5592	410	4100	486.4	125	70 - 130	4587	19.7	30	
Ethylbenzene	6608	410	4100	1613	122	70 - 130	5660	15.4	30	
m,p-Xylene	10240	820	8200	0	125	70 - 130	8242	21.6	30	
o-Xylene	5108	410	4100	0	125	70 - 130	4132	21.1	30	
Toluene	4827	410	4100	0	118	70 - 130	3907	21.1	30	
Xylenes, Total	15350	410	12300	0	125	70 - 130	12370	21.5	30	
Surr: 1,2-Dichloroethane-d4	3240	0	4100	0	79.0	70 - 126	3381	4.25	30	
Surr: 4-Bromofluorobenzene	4363	0	4100	0	106	70 - 130	4340	0.54	30	
Surr: Dibromofluoromethane	3581	0	4100	0	87.3	70 - 130	3907	8.71	30	
Surr: Toluene-d8	3810	0	4100	0	92.9	70 - 130	3795	0.398	30	

The following samples were analyzed in this batch: HS18070454-01 HS18070454-02

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319845		Instrument: VOA5		Method: SW8260					
MBLK	Sample ID: VBLKS1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 10:00					
Client ID:	Run ID: VOA5_319845	SeqNo: 4651871		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	5.0							
Ethylbenzene	ND	5.0							
m,p-Xylene	ND	10							
o-Xylene	ND	5.0							
Toluene	ND	5.0							
Xylenes, Total	ND	5.0							
Surr: 1,2-Dichloroethane-d4	48.35	0	50	0	96.7	76 - 125			
Surr: 4-Bromofluorobenzene	50.34	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	51.36	0	50	0	103	80 - 119			
Surr: Toluene-d8	51.67	0	50	0	103	81 - 118			

LCS	Sample ID: VLCSS1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 09:13					
Client ID:	Run ID: VOA5_319845	SeqNo: 4651870		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	54.39	5.0	50	0	109	75 - 124			
Ethylbenzene	59.95	5.0	50	0	120	70 - 123			
m,p-Xylene	120	10	100	0	120	77 - 125			
o-Xylene	59.71	5.0	50	0	119	78 - 122			
Toluene	59.63	5.0	50	0	119	76 - 122			
Xylenes, Total	179.7	5.0	150	0	120	77 - 128			
Surr: 1,2-Dichloroethane-d4	49.62	0	50	0	99.2	76 - 125			
Surr: 4-Bromofluorobenzene	52.51	0	50	0	105	80 - 120			
Surr: Dibromofluoromethane	51.99	0	50	0	104	80 - 119			
Surr: Toluene-d8	50.62	0	50	0	101	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319845		Instrument: VOA5		Method: SW8260						
MS	Sample ID: HS18070571-11MS		Units: ug/Kg			Analysis Date: 17-Jul-2018 12:00				
Client ID:		Run ID: VOA5_319845		SeqNo: 4652286		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Benzene	42.29	5.0	50	0	84.6	70 - 130				
Ethylbenzene	47.02	5.0	50	0	94.0	70 - 130				
m,p-Xylene	95.58	10	100	0	95.6	70 - 130				
o-Xylene	48.34	5.0	50	0	96.7	70 - 130				
Toluene	46.45	5.0	50	0	92.9	70 - 130				
Xylenes, Total	143.9	5.0	150	0	95.9	70 - 130				
Surr: 1,2-Dichloroethane-d4	48.52	0	50	0	97.0	70 - 126				
Surr: 4-Bromofluorobenzene	52.1	0	50	0	104	70 - 130				
Surr: Dibromofluoromethane	51.28	0	50	0	103	70 - 130				
Surr: Toluene-d8	48.76	0	50	0	97.5	70 - 130				
MSD	Sample ID: HS18070571-11MSD		Units: ug/Kg			Analysis Date: 17-Jul-2018 12:23				
Client ID:		Run ID: VOA5_319845		SeqNo: 4652287		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
Benzene	56.5	5.0	49.5	0	114	70 - 130	42.29	28.8	30	
Ethylbenzene	63.59	5.0	49.5	0	128	70 - 130	47.02	30	30	
m,p-Xylene	129.3	9.9	99	0	131	70 - 130	95.58	30	30	S
o-Xylene	64.63	5.0	49.5	0	131	70 - 130	48.34	28.8	30	S
Toluene	63.5	5.0	49.5	0	128	70 - 130	46.45	31	30	R
Xylenes, Total	193.9	5.0	148.5	0	131	70 - 130	143.9	29.6	30	S
Surr: 1,2-Dichloroethane-d4	47.68	0	49.5	0	96.3	70 - 126	48.52	1.75	30	
Surr: 4-Bromofluorobenzene	50.3	0	49.5	0	102	70 - 130	52.1	3.51	30	
Surr: Dibromofluoromethane	50.94	0	49.5	0	103	70 - 130	51.28	0.663	30	
Surr: Toluene-d8	48.86	0	49.5	0	98.7	70 - 130	48.76	0.215	30	
The following samples were analyzed in this batch: HS18070454-03 HS18070454-04 HS18070454-14										

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319859		Instrument: VOA8		Method: SW8260					
MBLK	Sample ID: MBLKW1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 11:36					
Client ID:	Run ID: VOA8_319859	SeqNo: 4652346		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	250							
Ethylbenzene	ND	250							
m,p-Xylene	ND	500							
o-Xylene	ND	250							
Toluene	ND	250							
Xylenes, Total	ND	250							
Surr: 1,2-Dichloroethane-d4	2529	0	2500	0	101	76 - 125			
Surr: 4-Bromofluorobenzene	2234	0	2500	0	89.3	80 - 120			
Surr: Dibromofluoromethane	2394	0	2500	0	95.8	80 - 119			
Surr: Toluene-d8	2439	0	2500	0	97.6	81 - 118			

LCS	Sample ID: VLCSW1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 10:46					
Client ID:	Run ID: VOA8_319859	SeqNo: 4652345		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.18	5.0	50	0	98.4	75 - 124			
Ethylbenzene	48.38	5.0	50	0	96.8	70 - 123			
m,p-Xylene	97.95	10	100	0	98.0	77 - 125			
o-Xylene	48.67	5.0	50	0	97.3	78 - 122			
Toluene	47.47	5.0	50	0	94.9	76 - 122			
Xylenes, Total	146.6	5.0	150	0	97.7	77 - 128			
Surr: 1,2-Dichloroethane-d4	51.02	0	50	0	102	76 - 125			
Surr: 4-Bromofluorobenzene	50.58	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	47.71	0	50	0	95.4	80 - 119			
Surr: Toluene-d8	46.61	0	50	0	93.2	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319859		Instrument: VOA8		Method: SW8260						
MS		Sample ID: HS18070454-02MS		Units: ug/Kg		Analysis Date: 17-Jul-2018 15:34				
Client ID: 001A		Run ID: VOA8_319859		SeqNo: 4653572		PrepDate:		DF: 5000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	390100	24000	245000	1829	158	70 - 130				S
Ethylbenzene	557900	24000	245000	166100	160	70 - 130				S
m,p-Xylene	887500	49000	490000	84010	164	70 - 130				S
o-Xylene	445400	24000	245000	45550	163	70 - 130				S
Toluene	436900	24000	245000	49250	158	70 - 130				S
Xylenes, Total	1333000	24000	735000	129600	164	70 - 130				S
Surr: 1,2-Dichloroethane-d4	257600	0	245000	0	105	70 - 126				
Surr: 4-Bromofluorobenzene	311100	0	245000	0	127	70 - 130				
Surr: Dibromofluoromethane	271500	0	245000	0	111	70 - 130				
Surr: Toluene-d8	301600	0	245000	0	123	70 - 130				

MSD		Sample ID: HS18070454-02MSD		Units: ug/Kg		Analysis Date: 17-Jul-2018 16:00				
Client ID: 001A		Run ID: VOA8_319859		SeqNo: 4653573		PrepDate:		DF: 5000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	361400	24000	245000	1829	147	70 - 130	390100	7.63	30	S
Ethylbenzene	537100	24000	245000	166100	151	70 - 130	557900	3.8	30	S
m,p-Xylene	827900	49000	490000	84010	152	70 - 130	887500	6.95	30	S
o-Xylene	416300	24000	245000	45550	151	70 - 130	445400	6.75	30	S
Toluene	409900	24000	245000	49250	147	70 - 130	436900	6.38	30	S
Xylenes, Total	1244000	24000	735000	129600	152	70 - 130	1333000	6.89	30	S
Surr: 1,2-Dichloroethane-d4	256000	0	245000	0	104	70 - 126	257600	0.609	30	
Surr: 4-Bromofluorobenzene	311300	0	245000	0	127	70 - 130	311100	0.0647	30	
Surr: Dibromofluoromethane	269100	0	245000	0	110	70 - 130	271500	0.88	30	
Surr: Toluene-d8	301500	0	245000	0	123	70 - 130	301600	0.0579	30	

The following samples were analyzed in this batch:

HS18070454-02	HS18070454-05	HS18070454-06	HS18070454-07
HS18070454-08	HS18070454-09	HS18070454-10	

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319934		Instrument: VOA5		Method: SW8260					
MBLK	Sample ID: VBLKS2-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 22:18					
Client ID:	Run ID: VOA5_319934	SeqNo: 4653669		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	5.0							
Ethylbenzene	ND	5.0							
m,p-Xylene	ND	10							
o-Xylene	ND	5.0							
Toluene	ND	5.0							
Xylenes, Total	ND	5.0							
Surr: 1,2-Dichloroethane-d4	47.77	0	50	0	95.5	76 - 125			
Surr: 4-Bromofluorobenzene	50.81	0	50	0	102	80 - 120			
Surr: Dibromofluoromethane	50.35	0	50	0	101	80 - 119			
Surr: Toluene-d8	50.59	0	50	0	101	81 - 118			

LCS	Sample ID: VLCSS2-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 21:31					
Client ID:	Run ID: VOA5_319934	SeqNo: 4653668		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.58	5.0	50	0	85.2	75 - 124			
Ethylbenzene	46	5.0	50	0	92.0	70 - 123			
m,p-Xylene	92.89	10	100	0	92.9	77 - 125			
o-Xylene	47.34	5.0	50	0	94.7	78 - 122			
Toluene	45.74	5.0	50	0	91.5	76 - 122			
Xylenes, Total	140.2	5.0	150	0	93.5	77 - 128			
Surr: 1,2-Dichloroethane-d4	50.39	0	50	0	101	76 - 125			
Surr: 4-Bromofluorobenzene	51.58	0	50	0	103	80 - 120			
Surr: Dibromofluoromethane	50.24	0	50	0	100	80 - 119			
Surr: Toluene-d8	50.06	0	50	0	100	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319934		Instrument: VOA5		Method: SW8260						
MS		Sample ID: HS18070626-04MS		Units: ug/Kg		Analysis Date: 18-Jul-2018 07:12				
Client ID:		Run ID: VOA5_319934		SeqNo: 4653677		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	31.24	4.0	40.5	0	77.1	70 - 130				
Ethylbenzene	33.22	4.0	40.5	0	82.0	70 - 130				
m,p-Xylene	67.34	8.1	81	0	83.1	70 - 130				
o-Xylene	34.88	4.0	40.5	0	86.1	70 - 130				
Toluene	34.61	4.0	40.5	0	85.5	70 - 130				
Xylenes, Total	102.2	4.0	121.5	0	84.1	70 - 130				
Surr: 1,2-Dichloroethane-d4	38.73	0	40.5	0	95.6	70 - 126				
Surr: 4-Bromofluorobenzene	42.42	0	40.5	0	105	70 - 130				
Surr: Dibromofluoromethane	43.3	0	40.5	0	107	70 - 130				
Surr: Toluene-d8	41.56	0	40.5	0	103	70 - 130				

MSD		Sample ID: HS18070626-04MSD		Units: ug/Kg		Analysis Date: 18-Jul-2018 07:35				
Client ID:		Run ID: VOA5_319934		SeqNo: 4653678		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	35.08	3.9	39	0	89.9	70 - 130	31.24	11.6	30	
Ethylbenzene	37.19	3.9	39	0	95.4	70 - 130	33.22	11.3	30	
m,p-Xylene	74.59	7.8	78	0	95.6	70 - 130	67.34	10.2	30	
o-Xylene	38.61	3.9	39	0	99.0	70 - 130	34.88	10.2	30	
Toluene	37.34	3.9	39	0	95.7	70 - 130	34.61	7.58	30	
Xylenes, Total	113.2	3.9	117	0	96.8	70 - 130	102.2	10.2	30	
Surr: 1,2-Dichloroethane-d4	39.04	0	39	0	100	70 - 126	38.73	0.804	30	
Surr: 4-Bromofluorobenzene	40.67	0	39	0	104	70 - 130	42.42	4.22	30	
Surr: Dibromofluoromethane	41.99	0	39	0	108	70 - 130	43.3	3.07	30	
Surr: Toluene-d8	39.46	0	39	0	101	70 - 130	41.56	5.17	30	

The following samples were analyzed in this batch: HS18070454-11 HS18070454-12 HS18070454-13

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

**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 detected below quantitation limit
M	Manually integrated, see raw data for justification
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/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Group Houston, Corp

Date: 20-Jul-18

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2016-2018	31-Jul-2018
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Kansas	E-10352 2017-218	31-Jul-2018
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18070454-01	001	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-02	001A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-03	001B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-04	001C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-05	002	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-06	002A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-07	002B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-08	002C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-09	003	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-10	003A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-11	003B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-12	003C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-13	BACKGROUND 1	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-14	BACKGROUND 2	Login	7/11/2018 12:01:45 PM	RPG	VOA098

Date: 20-Jul-18

Sample Receipt Checklist

Client Name: Clean Source Solutions

Date/Time Received: **11-Jul-2018 08:25**

Work Order: HS18070454

Received by: **RPG**Checklist completed by: Jared R. Makan
eSignature11-Jul-2018
DateReviewed by: Nicole Edwards
eSignature13-Jul-2018
DateMatrices: **Soil**Carrier name: **Greyhound**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
TX1005 solids received in hermetically sealed vials?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Temperature(s)/Thermometer(s):

1.1c/0.6c UC/C

IR11

Cooler(s)/Kit(s):

Blue

Date/Time sample(s) sent to storage:

07/11/2018 16:30

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:

Corrective Action:



Environmental

Chain of Custody Form

Page 1 of 2

COC ID: 123456

☐ Cincinnati, OH
+1 513 733 5336

☐ Holland, MI
+1 616 399 6070

☐ Salt Lake City, UT
+1 801 266 7700

☐ Everett, WA
+1 425 356 2600

☒ Houston, TX
+1 281 530 5656

☐ Spring City, PA
+1 610 948 4903

☐ Fort Collins, CO
+1 970 490 1511

☐ Middletown, PA
+1 717 944 5541

☐ York, PA
+1 717 505 5230

Customer Information			Project Information					Parameter/Method Request for Analysis												
Purchase Order		Project Name	LE RANCH #7-1					A	BTEX											
Work Order		Project Number						B	TPH - DRO											
Company Name	CLEAN SOURCE SOLUTIONS	Bill To Company	CLEAN SOURCE SOLUTIONS					C												
Send Report To	CHRIS DUNN	Invoice Attn.	CHRIS DUNN					D												
Address	PO Box 607	Address						E												
City/State/Zip	REDMONT, OK 73078	City/State/Zip						F												
Phone	405-265-2400	Phone						G												
Fax		Fax						H												
e-Mail Address	CDUNN@CLEANSOURCE.COM	e-Mail Address						I												
								J												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	Q01	7/6/18	12:15P	S	ICE	1	X	X												
2	Q01A	7/6/18	12:28P	S	ICE	1	X	X												
3	Q01B	7/6/18	12:28P	S	ICE	1	X	X												
4	Q01C	7/6/18	12:23P	S	ICE	1	X	X												
5	Q02	7/6/18	12:25P	S	ICE	1	X	X												
6	Q02A	7/6/18	12:27P	S	ICE	1	X	X												
7	Q02B	7/6/18	12:30P	S	ICE	1	X	X												
8	Q02C	7/6/18	12:35P	S	ICE	1	X	X												
9	Q03	7/6/18	12:40P	S	ICE	1	X	X												
10	Q03A	7/6/18	12:41P	S	ICE	1	X	X												
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Other		Results Due Date:												
CHRIS DUNN				STD 10 Wk Days		5 Wk Days		2 Wk Days		24 Hour										
Relinquished by:	Date:	Time:	Received by:		Notes:															
CHRIS DUNN	7/9/18	5:45P	LAWRENCE																	
Relinquished by:	Date:	Time:	Received by (Laboratory):		Cooler Temp.															
LAWRENCE	7/10/18	10:23A	R. CURE		QC Package: (Check Box Below)															
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:															
Preservative Key:		1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																		

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

 cooler = BLUE
 IR# 11 CF-0.5c

Copyright 2011 by ALS Group



Environmental

Chain of Custody Form

Page 2 of 2

COC ID: 123456

☐ Cincinnati, OH
+1 513 733 5336

☐ Holland, MI
+1 616 399 6070

☐ Salt Lake City, UT
+1 801 266 7700

☐ Everett, WA
+1 425 356 2600


☒ Houston, TX
+1 281 530 5656

☐ Spring City, PA
+1 610 948 4903

☐ Fort Collins, CO
+1 970 490 1511

☐ Middletown, PA
+1 717 944 5541

☐ York, PA
+1 717 505 5200

Customer Information			Project Information				Parameter/Method Request for Analysis													
Purchase Order		Project Name	LE RANCH #7-1				A	BTEX												
Work Order		Project Number					B	TPH-120												
Company Name	CLEAN SOURCE SOLUTIONS	Bill To Company	CLEAN SOURCE SOLUTIONS				C	<div style="text-align: center;"> HS18070454 Clean Source Solutions LE RANCH #7-1  </div>												
Send Report To	CHRIS DUNN	Invoice Attn:	CHRIS DUNN				D													
Address	PO Box 607	Address					E													
City/State/Zip	PIEDMONT, OK 73078	City/State/Zip					F													
Phone	405-265-2400	Phone					G													
Fax		Fax					H													
e-Mail Address	DUNN@CLEANSOURCEOK.COM	e-Mail Address					I													
J																				
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	003B	7/16/18	12:47p	S	ICE	1	X	X												
2	003C	7/16/18	12:44p	S	ICE	1	X	X												
3	BACKGROUND 1	7/16/18	12:46p	S	ICE	1	X	X												
4	BACKGROUND 2	7/16/18	12:50p	S	ICE	1	X	X												
5																				
6																				
7																				
8																				
9																				
10																				
Sampler(s): Please Print & Sign CHRIS DUNN / Chris		Shipment Method:		Required Turnaround Time:		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:												
Relinquished by:	Date:	Time:	Received by:		Notes:															
Relinquished by:	Date:	Time:	Received by (Laboratory):		Cooler Temp.															
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		QC Package: (Check Box Below) <input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:															
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NAOH 5-NA2S2O3 6-NAHSO4 7-Other 8-4 degrees C 9-5035																				

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Copyright 2011 by ALS Group

SRef#
CBL#
PO#Total Weight: 88
Total Pieces: 2

423681

**GPX AGENT PLEASE ADD
BUSBILL**

Piece 1 of 2

Ship to:

ALS Global Dallas
Danielle Winnings
10450 Stancliff Rd
Houston, TX 77099
281-5305656

1-866-SHIPGPX

SRef#
CBL#
PO#Total Weight: 88
Total Pieces: 2

423681

**GPX AGENT PLEASE ADD
BUSBILL**

Piece 2 of 2

Ship to:

ALS Global Dallas
Danielle Winnings
10450 Stancliff Rd
Houston, TX 77099
281-5305656

1-866-SHIPGPX

	ALS Environmental
	10450 Stancliff Rd., Suite 210
	Houston, Texas 77099
	Tel. +1 281 530 5656 Fax. +1 281 530 5887

CUSTODY SEAL		
Date: 7-10-18	Time: 11:45	
Name: Danielle Winnings		
Company: ALS		

	ALS Environmental
	10450 Stancliff Rd., Suite 210
	Houston, Texas 77099
	Tel. +1 281 530 5656 Fax. +1 281 530 5887

CUSTODY SEAL		
Date: 7-10-18	Time: 11:45	
Name: Danielle Winnings		
Company: ALS		

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, September 25, 2018 1:59 PM
To: Bratcher, Mike, EMNRD
Subject: [EXT] Clean Source Solutions submittal of qualifications

Mike,

Have you had an opportunity to review the qualification documents submitted by Clean Source Solutions yet?

Rory McMinn
575/626-7100 Cell

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2018 3:19 PM
To: 'Rory McMinn'
Cc: Pruett, Maria, EMNRD
Subject: RE: [EXT] Clean Source Solutions submittal of qualifications

Rory,

I have looked at what was submitted by Clean Source, and their method would be considered by OCD. However, as of 8/14/18, OCD has a new rule in effect regulating releases in New Mexico. I will provide a link to the rule in this email. Besides being under this new rule, there are a couple of things to mention here. Clean Source used TX 1005 as test method for TPH. That test method is not acceptable in New Mexico. TPH needs to be tested by EPA 8015 Extended Range (C-6 through C-35). BTEX needs to be tested by EPA 8021, and all results need to be listed in mg/kg. Along with the lab results, the data needs to be put in a table format in a manner that makes it reasonably simple to tell not only where the sample was taken from, but the specific depth as well. We just don't have enough staff available to wade through pages of lab analytical data and try figure out what we need to know to make a decision.

Here is a link to the rule (pdf), and if you have questions, I will try to answer them as best as I can.
<http://164.64.110.134/parts/title19/19.015.0029.pdf>

Thanks,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

-----Original Message-----

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, September 25, 2018 1:59 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] Clean Source Solutions submittal of qualifications

Mike,

Have you had an opportunity to review the qualification documents submitted by Clean Source Solutions yet?

Rory McMinn
575/626-7100 Cell

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Monday, October 1, 2018 2:28 PM
To: Bratcher, Mike, EMNRD
Subject: [EXT] Fwd: Automatic reply: LE Ranch 7-1 proposed remediation plan.

The last correspondence that I have to/from you or me is your out of office notice.

May I please request that you re-send the email from you on 9-27 regarding TX1005 being not acceptable.

Rory McMinn
575/626-7100 Cell

Begin forwarded message:

From: "Bratcher, Mike, EMNRD" <mike.bratcher@state.nm.us>
Date: September 10, 2018 at 11:09:02 AM MDT
To: Rory McMinn <rory@rmcminn.com>
Subject: Automatic reply: LE Ranch 7-1 proposed remediation plan.

I am currently out of the office

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Monday, October 1, 2018 2:37 PM
To: 'Rory McMinn'
Cc: Pruett, Maria, EMNRD
Subject: RE: [EXT] Clean Source Solutions submittal of qualifications

Re-Sending

-----Original Message-----

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2018 3:19 PM
To: 'Rory McMinn' <rory@rmcminn.com>
Cc: Pruett, Maria, EMNRD <Maria.Pruett@state.nm.us>
Subject: RE: [EXT] Clean Source Solutions submittal of qualifications

Rory,

I have looked at what was submitted by Clean Source, and their method would be considered by OCD. However, as of 8/14/18, OCD has a new rule in effect regulating releases in New Mexico. I will provide a link to the rule in this email. Besides being under this new rule, there are a couple of things to mention here. Clean Source used TX 1005 as test method for TPH. That test method is not acceptable in New Mexico. TPH needs to be tested by EPA 8015 Extended Range (C-6 through C-35). BTEX needs to be tested by EPA 8021, and all results need to be listed in mg/kg. Along with the lab results, the data needs to be put in a table format in a manner that makes it reasonably simple to tell not only where the sample was taken from, but the specific depth as well. We just don't have enough staff available to wade through pages of lab analytical data and try figure out what we need to know to make a decision.

Here is a link to the rule (pdf), and if you have questions, I will try to answer them as best as I can.
<http://164.64.110.134/parts/title19/19.015.0029.pdf>

Thanks,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

-----Original Message-----

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, September 25, 2018 1:59 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] Clean Source Solutions submittal of qualifications

Mike,

Have you had an opportunity to review the qualification documents submitted by Clean Source Solutions yet?

Rory McMinn
575/626-7100 Cell

Bratcher, Mike, EMNRD

From: Pruett, Maria, EMNRD
Sent: Monday, October 1, 2018 8:16 PM
To: rory@rmcminn.com
Cc: Bratcher, Mike, EMNRD
Subject: 2RP-4733

Hello Mr. McMinn,

The C-141 recently received was assigned 2RP-4733. Please send the following information to update form: Lat/Long for the release location. Because this spill doesn't have an approved Remediation Plan, any future remediation/closure will be to Revised Spill Rule requirements. You will also need to fill in the appropriate C-141 sections when submitting future requests. These requests should be typed and submitted by email, links are below. Please let me know if you have any questions.

New Spill Rule: <http://www.emnrd.state.nm.us/OCD/documents/NaturalResourcesWildlifeOilandGasReleases.pdf>

Updated C-141: <http://www.emnrd.state.nm.us/OCD/forms.html>

Best Regards,

Maria Pruett

Environmental Specialist
N.M. Oil Conservation Division
District 2
811 S. 1st Street
Artesia, NM 88210
Desk: 575 748-1283 X 101
Cell: 575 840-5963
Fax: 575748-9720

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, October 2, 2018 8:11 AM
To: Pruett, Maria, EMNRD
Cc: Bratcher, Mike, EMNRD
Subject: [EXT] Re: 2RP-4733

Maria,

Received your email during my trip to TX this AM.

I am limited in communication to my phone only. Will have to answer your question once on my laptop.

Rory McMinn
575/626-7100 Cell

On Oct 1, 2018, at 9:15 PM, Pruett, Maria, EMNRD <Maria.Pruett@state.nm.us> wrote:

Hello Mr. McMinn,

The C-141 recently received was assigned 2RP-4733. Please send the following information to update form: Lat/Long for the release location. Because this spill doesn't have an approved Remediation Plan, any future remediation/closure will be to Revised Spill Rule requirements. You will also need to fill in the appropriate C-141 sections when submitting future requests. These requests should be typed and submitted by email, links are below. Please let me know if you have any questions.

New Spill Rule: <http://www.emnrd.state.nm.us/OCD/documents/NaturalResourcesWildlifeOilandGasReleases.pdf>

Updated C-141: <http://www.emnrd.state.nm.us/OCD/forms.html>

Best Regards,

Maria Pruett

Environmental Specialist
N.M. Oil Conservation Division
District 2
811 S. 1st Street
Artesia, NM 88210
Desk: 575 748-1283 X 101
Cell: 575 840-5963
Fax: 575748-9720

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Wednesday, October 3, 2018 5:17 AM
To: Pruett, Maria, EMNRD
Cc: Bratcher, Mike, EMNRD
Subject: Re: [EXT] Re: 2RP-4733

Maria,

From ONGARD the Lat is 33.38043715 & Long is 104.133.

I do not have a GPS that I shot personally, but can have that tomorrow, if you need it.

Rory McMinn
575/626-7100 Cell

On Oct 2, 2018, at 10:53 AM, Pruett, Maria, EMNRD <Maria.Pruett@state.nm.us> wrote:

Not a problem, safe travels!

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, October 2, 2018 8:11 AM
To: Pruett, Maria, EMNRD <Maria.Pruett@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Subject: [EXT] Re: 2RP-4733

Maria,

Received your email during my trip to TX this AM.

I am limited in communication to my phone only. Will have to answer your question once on my laptop.

Rory McMinn
575/626-7100 Cell

On Oct 1, 2018, at 9:15 PM, Pruett, Maria, EMNRD <Maria.Pruett@state.nm.us> wrote:

Hello Mr. McMinn,

The C-141 recently received was assigned 2RP-4733. Please send the following information to update form: Lat/Long for the release location. Because this spill doesn't have an approved Remediation Plan, any future remediation/closure will be to Revised Spill Rule requirements. You will also need to fill in the appropriate C-141 sections when submitting future requests. These requests should be typed and submitted by email, links are below. Please let me know if you have any questions.

New Spill Rule:
<http://www.emnrd.state.nm.us/OCD/documents/NaturalResourcesWildlifeOilandGasReleases.pdf>

Updated C-141: <http://www.emnrd.state.nm.us/OCD/forms.html>

Best Regards,

Maria Pruett

Environmental Specialist
N.M. Oil Conservation Division
District 2
811 S. 1st Street
Artesia, NM 88210
Desk: 575 748-1283 X 101
Cell: 575 840-5963
Fax: 575748-9720

Bratcher, Mike, EMNRD

From: Billings, Bradford, EMNRD
Sent: Tuesday, December 18, 2018 11:30 AM
To: Rory McMinn; Bratcher, Mike, EMNRD; Chris Dunn; Mark Bess
Subject: RE: [EXT] December 13, 2018 Out-of -Compliance letter from Griswold

Hello,

Letter received was a mass mailing to all operators with one or more ACTIVE sites in N.M. If release for RP happened before August 14, 2018 and does not have a current operationally approved work plan with schedules, the site(s) may be out of compliance. It is requested that the operators review their own records for any outstanding RP's.

For now, OCD finds two RP's (2R-4548 and 4733) to be open for this operator. Please forward current approvals if any on these sites/RP's. I believe one is an ongoing process as of this letter. An ACO would likely not be needed if resolution for going forward on these locations is accommodated in quick fashion.

We appreciate your efforts. Any questions, please email. Any requests/reports etc. not already approved would need to come to me as well for approval/closure. If this can be done quickly, compliance issue would likely not crop up again.

Sincerely,

Bradford Billings
EMNRD/OCD
Santa Fe

-----Original Message-----

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, December 18, 2018 10:42 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Chris Dunn <cdunn@cleansourceok.com>; Mark Bess <mbess@naico.com>
Subject: [EXT] December 13, 2018 Out-of -Compliance letter from Griswold

Brad,

Attached is an Out-of[-Compliance letter received yesterday from Griswold. I am copying Bratcher and Chris Dunn, Clean Source Solutions and Mark Brees, NAICO Insurance regarding the notice. We got caught up in the middle of pregnancy and change of job issues in getting the contractor, Clean Source Solutions through the process of being allowed to perform the cleanup for our insurance carrier at two sites in Chaves County. Both of the Clean Source Solutions' remediation plans are attached. You will note that the dates are in August of 2018. Both were submitted to the OCD office in Artesia for approval. Bratcher was still involved environmentally and not yet just administrative. Mike wanted further delineation of Clean Source's track record and of their process. Chris Dunn provide same to him.

We fell through the cracks in changes, including the change in rules & policy, and when we were finally notified by one of the lady's in the Artesia office that Mike was no longer handling the environmental, just before the deadline to change our program tot he new rules was to take effect, it was too damn late.

Please note that we notified OCD upon recognition of spills because we wanted to be in compliance and we remain in that mindset. We will provide or perform whatever is required to remain in compliance as we and our insurance carrier would like to get these cleanups behind us.

Regards,

Rory McMinn

575/626-7100

Bratcher, Mike, EMNRD

From: MBess@naico.com
Sent: Tuesday, December 18, 2018 12:38 PM
To: Rory McMinn
Cc: Billings, Bradford, EMNRD; Chris Dunn; Bratcher, Mike, EMNRD
Subject: [EXT] Re: December 13, 2018 Out-of -Compliance letter from Griswold
Attachments: OCD 12-13-2018 Out of Compliance letter Griswold-Billings 12-17-2018.pdf; Clean Solutions Frank P. State Remediation Plan - Final.pdf; CS SamplesHS18070454 LE RANCH 71 Final.pdf; rory.vcf

Thank you Rory.

Mark Bess, AIC
Sr Supervising Adjuster
National American Insurance Company
PO Box 38
Chandler, OK 74834
(405)258-4387 - Office
(405)240-5573 - Fax
mbess@naico.com



From: Rory McMinn <rory@rmcminn.com>
To: bradford.billings@state.nm.us, "Bratcher, Mike, EMNRD" <mike.bratcher@state.nm.us>, Chris Dunn <cdunn@cleansourceok.com>, Mark Bess <mbess@naico.com>
Date: 12/18/2018 12:01 PM
Subject: December 13, 2018 Out-of -Compliance letter from Griswold

Brad,

Attached is an Out-of[-Compliance letter received yesterday from Griswold. I am copying Bratcher and Chris Dunn, Clean Source Solutions and Mark Brees, NAICO Insurance regarding the notice. We got caught up in the middle of pregnancy and change of job issues in getting the contractor, Clean Source Solutions through the process of being allowed to perform the cleanup for our insurance carrier at two sites in Chaves County. Both of the Clean Source Solutions' remediation plans are

attached. You will note that the dates are in August of 2018. Both were submitted to the OCD office in Artesia for approval. Bratcher was still involved environmentally and not yet just administrative. Mike wanted further delineation of Clean Source's track record and of their process. Chris Dunn provide same to him.

We fell through the cracks in changes, including the change in rules & policy, and when we were finally notified by one of the lady's in the Artesia office that Mike was no longer handling the environmental, just before the deadline to change our program tot he new rules was to take effect, it was too damn late.

Please note that we notified OCD upon recognition of spills because we wanted to be in compliance and we remain in that mindset. We will provide or perform whatever is required to remain in compliance as we and our insurance carrier would like t get these cleanups behind us.

Regards,

Rory McMinn

575/626-7100

The content of this email message and any attachments are considered proprietary and confidential and may be legally privileged. This email is intended solely for the addressee. If you are not the intended recipient, be advised that any use, distribution, alteration, or copying of this email is strictly prohibited. If you receive this message in error, please notify the sender immediately by reply email and destroy the message and its attachments.

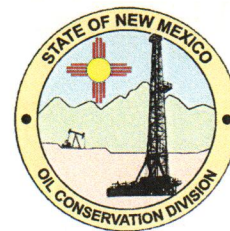
State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley
Director, Oil Conservation Division



December 13, 2018

372241

QUATRO OSOS E&P, LLC
1742 Calle La Placita
P.O. Box 1213: Roswell, Nm 882
Lincoln, NM 88338

RE: Unresolved Releases

Dear Operator,

Effective August 14th of this year the Oil Conservation Division's (OCD's) rules regarding spills were substantially revised. The new rules, 19.15.29 NMAC, provide deadlines for the impacts of a release to be characterized and remediated. There are now provisions for deferrals, variances, enforcement, and for releases occurring before the rule revision's effective date which have not been cleaned up.

The rule's transitional subpart (19.15.29.16 NMAC) required responsible parties without approved plans or plans without deadlines to submit a characterization or remediation plan before November 12, 2018. Given the significant number of release cases subject to this subpart, the OCD advertised a process to negotiate compliance agreements with operators if they believed they would not be able to fulfill the rule's requirements. Numerous operators have heeded both the rule and OCD's urging to enter into agreements which establish a review process along with schedules for completion of cleanups.

According to our database you have several active release incidents which occurred before the effective date of the rule revision. Your firm did not contact OCD in this regard before the November 12th deadline. As such, your firm may be out of compliance and subject to enforcement actions. Please contact Brad Billings at (505) 476-3482 or by email at bradford.billings@state.nm.us on or before February 4, 2019 to begin the process of resolving these concerns.

Respectfully,

Jim Griswold
Environmental Bureau Chief



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

July 20, 2018

Chris Dunn
Clean Source Solutions
PO Box 607
Piedmont, OK 73078

Work Order: **HS18070454**

Laboratory Results for: **LE RANCH #7-1**

Dear Chris,

ALS Environmental received 14 sample(s) on Jul 11, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

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

Sincerely,

Generated By: JUMOKE.LAWAL
Nicole Edwards
Project Manager

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18070454-01	001	Soil		06-Jul-2018 12:15	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-02	001A	Soil		06-Jul-2018 12:18	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-03	001B	Soil		06-Jul-2018 12:20	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-04	001C	Soil		06-Jul-2018 12:33	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-05	002	Soil		06-Jul-2018 12:25	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-06	002A	Soil		06-Jul-2018 12:27	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-07	002B	Soil		06-Jul-2018 12:30	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-08	002C	Soil		06-Jul-2018 12:35	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-09	003	Soil		06-Jul-2018 12:40	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-10	003A	Soil		06-Jul-2018 12:41	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-11	003B	Soil		06-Jul-2018 12:42	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-12	003C	Soil		06-Jul-2018 12:44	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-13	BACKGROUND 1	Soil		06-Jul-2018 12:46	11-Jul-2018 08:25	<input type="checkbox"/>
HS18070454-14	BACKGROUND 2	Soil		06-Jul-2018 12:50	11-Jul-2018 08:25	<input type="checkbox"/>

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

CASE NARRATIVE

GC Semivolatiles by Method TX1005**Batch ID: 130378****Sample ID: 001 (HS18070454-01)**

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 001A (HS18070454-02)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 002 (HS18070454-05)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 002A (HS18070454-06)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003 (HS18070454-09)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003A (HS18070454-10)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: 003C (HS18070454-12MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: 003C (HS18070454-12MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GCMS Volatiles by Method SW8260**Batch ID: R319840**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R319845**Sample ID: HS18070571-11MS**

- MS and MSD are for an unrelated sample

Batch ID: R319859**Sample ID: 001A (HS18070454-02MS)**

- MS/MSD failed QC limits for compounds.

Batch ID: R319934

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001
 Collection Date: 06-Jul-2018 12:15

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2500	ug/Kg	500	17-Jul-2018 05:49
Ethylbenzene	17,000		2500	ug/Kg	500	17-Jul-2018 05:49
m,p-Xylene	9,500		5000	ug/Kg	500	17-Jul-2018 05:49
o-Xylene	4,800		2500	ug/Kg	500	17-Jul-2018 05:49
Toluene	3,600		2500	ug/Kg	500	17-Jul-2018 05:49
Xylenes, Total	14,000		2500	ug/Kg	500	17-Jul-2018 05:49
Surr: 1,2-Dichloroethane-d4	96.7		70-126	%REC	500	17-Jul-2018 05:49
Surr: 4-Bromofluorobenzene	101		70-130	%REC	500	17-Jul-2018 05:49
Surr: Dibromofluoromethane	93.1		70-130	%REC	500	17-Jul-2018 05:49
Surr: Toluene-d8	95.2		70-130	%REC	500	17-Jul-2018 05:49
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	27,000		2500	mg/Kg	50	19-Jul-2018 11:06
>nC28 to nC35	4,400		2500	mg/Kg	50	19-Jul-2018 11:06
Total Petroleum Hydrocarbon	34,500		2500	mg/Kg	50	19-Jul-2018 11:06
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 11:06
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 11:06

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001A
 Collection Date: 06-Jul-2018 12:18

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2400	ug/Kg	500	17-Jul-2018 06:12
Ethylbenzene	170,000		24000	ug/Kg	5000	17-Jul-2018 15:07
m,p-Xylene	71,000		4900	ug/Kg	500	17-Jul-2018 06:12
o-Xylene	38,000		2400	ug/Kg	500	17-Jul-2018 06:12
Toluene	39,000		2400	ug/Kg	500	17-Jul-2018 06:12
Xylenes, Total	110,000		2400	ug/Kg	500	17-Jul-2018 06:12
Surr: 1,2-Dichloroethane-d4	98.3		70-126	%REC	500	17-Jul-2018 06:12
Surr: 1,2-Dichloroethane-d4	121		70-126	%REC	5000	17-Jul-2018 15:07
Surr: 4-Bromofluorobenzene	105		70-130	%REC	500	17-Jul-2018 06:12
Surr: 4-Bromofluorobenzene	124		70-130	%REC	5000	17-Jul-2018 15:07
Surr: Dibromofluoromethane	93.2		70-130	%REC	500	17-Jul-2018 06:12
Surr: Dibromofluoromethane	116		70-130	%REC	5000	17-Jul-2018 15:07
Surr: Toluene-d8	95.2		70-130	%REC	500	17-Jul-2018 06:12
Surr: Toluene-d8	126		70-130	%REC	5000	17-Jul-2018 15:07
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	18,000		1900	mg/Kg	40	19-Jul-2018 11:35
>nC28 to nC35	2,500		1900	mg/Kg	40	19-Jul-2018 11:35
Total Petroleum Hydrocarbon	26,000		1900	mg/Kg	40	19-Jul-2018 11:35
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 11:35
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 11:35

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001B
 Collection Date: 06-Jul-2018 12:20

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	17-Jul-2018 11:12
Ethylbenzene	11		5.0	ug/Kg	1	17-Jul-2018 11:12
m,p-Xylene	ND		9.9	ug/Kg	1	17-Jul-2018 11:12
o-Xylene	6.5		5.0	ug/Kg	1	17-Jul-2018 11:12
Toluene	ND		5.0	ug/Kg	1	17-Jul-2018 11:12
Xylenes, Total	14		5.0	ug/Kg	1	17-Jul-2018 11:12
Surr: 1,2-Dichloroethane-d4	91.9		70-126	%REC	1	17-Jul-2018 11:12
Surr: 4-Bromofluorobenzene	106		70-130	%REC	1	17-Jul-2018 11:12
Surr: Dibromofluoromethane	103		70-130	%REC	1	17-Jul-2018 11:12
Surr: Toluene-d8	104		70-130	%REC	1	17-Jul-2018 11:12
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	ND		49	mg/Kg	1	16-Jul-2018 22:33
>nC28 to nC35	ND		49	mg/Kg	1	16-Jul-2018 22:33
Total Petroleum Hydrocarbon	ND		49	mg/Kg	1	16-Jul-2018 22:33
Surr: 2-Fluorobiphenyl	80.3		70-130	%REC	1	16-Jul-2018 22:33
Surr: Trifluoromethyl benzene	77.9		70-130	%REC	1	16-Jul-2018 22:33

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 001C
 Collection Date: 06-Jul-2018 12:33

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Ethylbenzene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
m,p-Xylene	ND		10	ug/Kg	1	17-Jul-2018 10:48
o-Xylene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Toluene	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Xylenes, Total	ND		5.0	ug/Kg	1	17-Jul-2018 10:48
Surr: 1,2-Dichloroethane-d4	92.7		70-126	%REC	1	17-Jul-2018 10:48
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	17-Jul-2018 10:48
Surr: Dibromofluoromethane	100		70-130	%REC	1	17-Jul-2018 10:48
Surr: Toluene-d8	105		70-130	%REC	1	17-Jul-2018 10:48
TEXAS TPH BY TX1005		Method:TX1005			Prep:TX1005PR / 13-Jul-2018	Analyst: MBG
>nC12 to nC28	65		49	mg/Kg	1	16-Jul-2018 23:02
>nC28 to nC35	ND		49	mg/Kg	1	16-Jul-2018 23:02
Total Petroleum Hydrocarbon	65.0		49	mg/Kg	1	16-Jul-2018 23:02
Surr: 2-Fluorobiphenyl	70.7		70-130	%REC	1	16-Jul-2018 23:02
Surr: Trifluoromethyl benzene	78.0		70-130	%REC	1	16-Jul-2018 23:02

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002
 Collection Date: 06-Jul-2018 12:25

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-05
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2500	ug/Kg	500	17-Jul-2018 13:23
Ethylbenzene	25,000		2500	ug/Kg	500	17-Jul-2018 13:23
m,p-Xylene	12,000		5000	ug/Kg	500	17-Jul-2018 13:23
o-Xylene	5,400		2500	ug/Kg	500	17-Jul-2018 13:23
Toluene	19,000		2500	ug/Kg	500	17-Jul-2018 13:23
Xylenes, Total	17,000		2500	ug/Kg	500	17-Jul-2018 13:23
Surr: 1,2-Dichloroethane-d4	123		70-126	%REC	500	17-Jul-2018 13:23
Surr: 4-Bromofluorobenzene	123		70-130	%REC	500	17-Jul-2018 13:23
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 13:23
Surr: Toluene-d8	122		70-130	%REC	500	17-Jul-2018 13:23
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	21,000		2500	mg/Kg	50	19-Jul-2018 12:04
>nC28 to nC35	3,700		2500	mg/Kg	50	19-Jul-2018 12:04
Total Petroleum Hydrocarbon	27,200		2500	mg/Kg	50	19-Jul-2018 12:04
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 12:04
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 12:04

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002A
 Collection Date: 06-Jul-2018 12:27

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-06
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	41,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Ethylbenzene	590,000		24000	ug/Kg	5000	17-Jul-2018 16:26
m,p-Xylene	250,000		48000	ug/Kg	5000	17-Jul-2018 16:26
o-Xylene	110,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Toluene	490,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Xylenes, Total	360,000		24000	ug/Kg	5000	17-Jul-2018 16:26
Surr: 1,2-Dichloroethane-d4	120		70-126	%REC	5000	17-Jul-2018 16:26
Surr: 4-Bromofluorobenzene	123		70-130	%REC	5000	17-Jul-2018 16:26
Surr: Dibromofluoromethane	117		70-130	%REC	5000	17-Jul-2018 16:26
Surr: Toluene-d8	125		70-130	%REC	5000	17-Jul-2018 16:26
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	14,000		2000	mg/Kg	40	19-Jul-2018 11:06
>nC28 to nC35	2,400		2000	mg/Kg	40	19-Jul-2018 11:06
Total Petroleum Hydrocarbon	22,100		2000	mg/Kg	40	19-Jul-2018 11:06
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 11:06
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 11:06

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002B
 Collection Date: 06-Jul-2018 12:30

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	7,500		2400	ug/Kg	500	17-Jul-2018 14:15
Ethylbenzene	210,000		24000	ug/Kg	5000	17-Jul-2018 16:53
m,p-Xylene	80,000		4800	ug/Kg	500	17-Jul-2018 14:15
o-Xylene	38,000		2400	ug/Kg	500	17-Jul-2018 14:15
Toluene	150,000		24000	ug/Kg	5000	17-Jul-2018 16:53
Xylenes, Total	120,000		2400	ug/Kg	500	17-Jul-2018 14:15
Surr: 1,2-Dichloroethane-d4	116		70-126	%REC	500	17-Jul-2018 14:15
Surr: 1,2-Dichloroethane-d4	122		70-126	%REC	5000	17-Jul-2018 16:53
Surr: 4-Bromofluorobenzene	120		70-130	%REC	5000	17-Jul-2018 16:53
Surr: 4-Bromofluorobenzene	126		70-130	%REC	500	17-Jul-2018 14:15
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 14:15
Surr: Dibromofluoromethane	116		70-130	%REC	5000	17-Jul-2018 16:53
Surr: Toluene-d8	124		70-130	%REC	5000	17-Jul-2018 16:53
Surr: Toluene-d8	125		70-130	%REC	500	17-Jul-2018 14:15
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	6,600		470	mg/Kg	10	17-Jul-2018 00:29
>nC28 to nC35	1,000		470	mg/Kg	10	17-Jul-2018 00:29
Total Petroleum Hydrocarbon	9,500		470	mg/Kg	10	17-Jul-2018 00:29
Surr: 2-Fluorobiphenyl	118		70-130	%REC	10	17-Jul-2018 00:29
Surr: Trifluoromethyl benzene	122		70-130	%REC	10	17-Jul-2018 00:29

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 002C
 Collection Date: 06-Jul-2018 12:35

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		230	ug/Kg	50	17-Jul-2018 12:32
Ethylbenzene	480		230	ug/Kg	50	17-Jul-2018 12:32
m,p-Xylene	ND		460	ug/Kg	50	17-Jul-2018 12:32
o-Xylene	ND		230	ug/Kg	50	17-Jul-2018 12:32
Toluene	350		230	ug/Kg	50	17-Jul-2018 12:32
Xylenes, Total	ND		230	ug/Kg	50	17-Jul-2018 12:32
Surr: 1,2-Dichloroethane-d4	102		70-126	%REC	50	17-Jul-2018 12:32
Surr: 4-Bromofluorobenzene	102		70-130	%REC	50	17-Jul-2018 12:32
Surr: Dibromofluoromethane	95.1		70-130	%REC	50	17-Jul-2018 12:32
Surr: Toluene-d8	93.4		70-130	%REC	50	17-Jul-2018 12:32
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	51		49	mg/Kg	1	17-Jul-2018 00:58
>nC28 to nC35	ND		49	mg/Kg	1	17-Jul-2018 00:58
Total Petroleum Hydrocarbon	51.0		49	mg/Kg	1	17-Jul-2018 00:58
Surr: 2-Fluorobiphenyl	86.0		70-130	%REC	1	17-Jul-2018 00:58
Surr: Trifluoromethyl benzene	90.4		70-130	%REC	1	17-Jul-2018 00:58

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 003
 Collection Date: 06-Jul-2018 12:40

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-09
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		2400	ug/Kg	500	17-Jul-2018 14:41
Ethylbenzene	28,000		2400	ug/Kg	500	17-Jul-2018 14:41
m,p-Xylene	14,000		4800	ug/Kg	500	17-Jul-2018 14:41
o-Xylene	7,000		2400	ug/Kg	500	17-Jul-2018 14:41
Toluene	10,000		2400	ug/Kg	500	17-Jul-2018 14:41
Xylenes, Total	21,000		2400	ug/Kg	500	17-Jul-2018 14:41
Surr: 1,2-Dichloroethane-d4	118		70-126	%REC	500	17-Jul-2018 14:41
Surr: 4-Bromofluorobenzene	126		70-130	%REC	500	17-Jul-2018 14:41
Surr: Dibromofluoromethane	116		70-130	%REC	500	17-Jul-2018 14:41
Surr: Toluene-d8	124		70-130	%REC	500	17-Jul-2018 14:41
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	25,000		2400	mg/Kg	50	19-Jul-2018 11:35
>nC28 to nC35	3,900		2400	mg/Kg	50	19-Jul-2018 11:35
Total Petroleum Hydrocarbon	31,500		2400	mg/Kg	50	19-Jul-2018 11:35
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	50	19-Jul-2018 11:35
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	50	19-Jul-2018 11:35

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 003A
Collection Date: 06-Jul-2018 12:41

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		240	ug/Kg	50	17-Jul-2018 12:57
Ethylbenzene	980		240	ug/Kg	50	17-Jul-2018 12:57
m,p-Xylene	ND		490	ug/Kg	50	17-Jul-2018 12:57
o-Xylene	ND		240	ug/Kg	50	17-Jul-2018 12:57
Toluene	400		240	ug/Kg	50	17-Jul-2018 12:57
Xylenes, Total	ND		240	ug/Kg	50	17-Jul-2018 12:57
Surr: 1,2-Dichloroethane-d4	119		70-126	%REC	50	17-Jul-2018 12:57
Surr: 4-Bromofluorobenzene	123		70-130	%REC	50	17-Jul-2018 12:57
Surr: Dibromofluoromethane	110		70-130	%REC	50	17-Jul-2018 12:57
Surr: Toluene-d8	114		70-130	%REC	50	17-Jul-2018 12:57
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	10,000		1900	mg/Kg	40	19-Jul-2018 12:04
>nC28 to nC35	2,300		1900	mg/Kg	40	19-Jul-2018 12:04
Total Petroleum Hydrocarbon	12,300		1900	mg/Kg	40	19-Jul-2018 12:04
Surr: 2-Fluorobiphenyl	0	S	70-130	%REC	40	19-Jul-2018 12:04
Surr: Trifluoromethyl benzene	0	S	70-130	%REC	40	19-Jul-2018 12:04

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: 003B
Collection Date: 06-Jul-2018 12:42

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Ethylbenzene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
m,p-Xylene	ND		10	ug/Kg	1	18-Jul-2018 01:03
o-Xylene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Toluene	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Xylenes, Total	ND		5.0	ug/Kg	1	18-Jul-2018 01:03
Surr: 1,2-Dichloroethane-d4	96.6		70-126	%REC	1	18-Jul-2018 01:03
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	18-Jul-2018 01:03
Surr: Dibromofluoromethane	102		70-130	%REC	1	18-Jul-2018 01:03
Surr: Toluene-d8	103		70-130	%REC	1	18-Jul-2018 01:03
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	5,600		490	mg/Kg	10	17-Jul-2018 03:24
>nC28 to nC35	1,000		490	mg/Kg	10	17-Jul-2018 03:24
Total Petroleum Hydrocarbon	6,600		490	mg/Kg	10	17-Jul-2018 03:24
Surr: 2-Fluorobiphenyl	103		70-130	%REC	10	17-Jul-2018 03:24
Surr: Trifluoromethyl benzene	83.7		70-130	%REC	10	17-Jul-2018 03:24

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: 003C
 Collection Date: 06-Jul-2018 12:44

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-12
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Ethylbenzene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
m,p-Xylene	ND		9.7	ug/Kg	1	18-Jul-2018 00:39
o-Xylene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Toluene	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Xylenes, Total	ND		4.8	ug/Kg	1	18-Jul-2018 00:39
Surr: 1,2-Dichloroethane-d4	101		70-126	%REC	1	18-Jul-2018 00:39
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	18-Jul-2018 00:39
Surr: Dibromofluoromethane	103		70-130	%REC	1	18-Jul-2018 00:39
Surr: Toluene-d8	104		70-130	%REC	1	18-Jul-2018 00:39
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	7,200		470	mg/Kg	10	18-Jul-2018 12:23
>nC28 to nC35	1,200		470	mg/Kg	10	18-Jul-2018 12:23
Total Petroleum Hydrocarbon	8,400		470	mg/Kg	10	18-Jul-2018 12:23
Surr: 2-Fluorobiphenyl	120		70-130	%REC	10	18-Jul-2018 12:23
Surr: Trifluoromethyl benzene	75.4		70-130	%REC	10	18-Jul-2018 12:23

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Sample ID: BACKGROUND 1
Collection Date: 06-Jul-2018 12:46

ANALYTICAL REPORT

WorkOrder:HS18070454
Lab ID:HS18070454-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR		
Benzene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Ethylbenzene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
m,p-Xylene	ND		10	ug/Kg	1	18-Jul-2018 00:16
o-Xylene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Toluene	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Xylenes, Total	ND		5.0	ug/Kg	1	18-Jul-2018 00:16
Surr: 1,2-Dichloroethane-d4	96.9		70-126	%REC	1	18-Jul-2018 00:16
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	18-Jul-2018 00:16
Surr: Dibromofluoromethane	101		70-130	%REC	1	18-Jul-2018 00:16
Surr: Toluene-d8	102		70-130	%REC	1	18-Jul-2018 00:16
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018 Analyst: MBG		
>nC12 to nC28	ND		48	mg/Kg	1	17-Jul-2018 03:53
>nC28 to nC35	ND		48	mg/Kg	1	17-Jul-2018 03:53
Total Petroleum Hydrocarbon	ND		48	mg/Kg	1	17-Jul-2018 03:53
Surr: 2-Fluorobiphenyl	83.1		70-130	%REC	1	17-Jul-2018 03:53
Surr: Trifluoromethyl benzene	71.4		70-130	%REC	1	17-Jul-2018 03:53

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
 Project: LE RANCH #7-1
 Sample ID: BACKGROUND 2
 Collection Date: 06-Jul-2018 12:50

ANALYTICAL REPORT

WorkOrder:HS18070454
 Lab ID:HS18070454-14
 Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: WLR
Benzene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Ethylbenzene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
m,p-Xylene	ND		9.3	ug/Kg	1	17-Jul-2018 11:36
o-Xylene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Toluene	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Xylenes, Total	ND		4.6	ug/Kg	1	17-Jul-2018 11:36
Surr: 1,2-Dichloroethane-d4	99.6		70-126	%REC	1	17-Jul-2018 11:36
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	17-Jul-2018 11:36
Surr: Dibromofluoromethane	104		70-130	%REC	1	17-Jul-2018 11:36
Surr: Toluene-d8	103		70-130	%REC	1	17-Jul-2018 11:36
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 13-Jul-2018		Analyst: MBG
>nC12 to nC28	ND		48	mg/Kg	1	17-Jul-2018 04:22
>nC28 to nC35	ND		48	mg/Kg	1	17-Jul-2018 04:22
Total Petroleum Hydrocarbon	ND		48	mg/Kg	1	17-Jul-2018 04:22
Surr: 2-Fluorobiphenyl	74.9		70-130	%REC	1	17-Jul-2018 04:22
Surr: Trifluoromethyl benzene	70.6		70-130	%REC	1	17-Jul-2018 04:22

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

ALS Group Houston, Corp

Date: 20-Jul-18

WEIGHT LOG

Client: Clean Source Solutions

Project: LE RANCH #7-1

WorkOrder: HS18070454

Batch ID: 2524 Method: VOLATILES BY SW8260C

SamplID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18070454-01	1	5.066 (g)	5 (mL)	0.99	Bulk (5030B)
HS18070454-02	1	5.114 (g)	5 (mL)	0.98	Bulk (5030B)
HS18070454-03	1	5.069 (g)	5 (mL)	0.99	Bulk (5030B)
HS18070454-04	1	4.959 (g)	5 (mL)	1.01	Bulk (5030B)
HS18070454-05	1	5.006 (g)	5 (mL)	1	Bulk (5030B)
HS18070454-06	1	5.202 (g)	5 (mL)	0.96	Bulk (5030B)
HS18070454-07	1	5.15 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-08	1	5.35 (g)	5 (mL)	0.93	Bulk (5030B)
HS18070454-09	1	5.141 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-10	1	5.108 (g)	5 (mL)	0.98	Bulk (5030B)
HS18070454-11	1	4.99 (g)	5 (mL)	1	Bulk (5030B)
HS18070454-12	1	5.156 (g)	5 (mL)	0.97	Bulk (5030B)
HS18070454-13	1	4.957 (g)	5 (mL)	1.01	Bulk (5030B)
HS18070454-14	1	5.392 (g)	5 (mL)	0.93	Bulk (5030B)

Batch ID: 130378 Method: TEXAS TPH BY TX1005 Prep: TX 1005_S PR

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18070454-01	1	10.09	10 (mL)	0.9911
HS18070454-02	1	10.38	10 (mL)	0.9634
HS18070454-03	1	10.29	10 (mL)	0.9718
HS18070454-04	1	10.15	10 (mL)	0.9852
HS18070454-05	1	10.17	10 (mL)	0.9833
HS18070454-06	1	10.23	10 (mL)	0.9775
HS18070454-07	1	10.74	10 (mL)	0.9311
HS18070454-08	1	10.19	10 (mL)	0.9814
HS18070454-09	1	10.27	10 (mL)	0.9737
HS18070454-10	1	10.44	10 (mL)	0.9579
HS18070454-11	1	10.16	10 (mL)	0.9843
HS18070454-12	1	10.69	10 (mL)	0.9355
HS18070454-13	1	10.32	10 (mL)	0.969
HS18070454-14	1	10.45	10 (mL)	0.9569

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 130378 Test Name : TEXAS TPH BY TX1005 Matrix: Soil						
HS18070454-01	001	06 Jul 2018 12:15		13 Jul 2018 10:44	19 Jul 2018 11:06	50
HS18070454-02	001A	06 Jul 2018 12:18		13 Jul 2018 10:44	19 Jul 2018 11:35	40
HS18070454-03	001B	06 Jul 2018 12:20		13 Jul 2018 10:44	16 Jul 2018 22:33	1
HS18070454-04	001C	06 Jul 2018 12:33		13 Jul 2018 10:44	16 Jul 2018 23:02	1
HS18070454-05	002	06 Jul 2018 12:25		13 Jul 2018 10:44	19 Jul 2018 12:04	50
HS18070454-06	002A	06 Jul 2018 12:27		13 Jul 2018 10:44	19 Jul 2018 11:06	40
HS18070454-07	002B	06 Jul 2018 12:30		13 Jul 2018 10:44	17 Jul 2018 00:29	10
HS18070454-08	002C	06 Jul 2018 12:35		13 Jul 2018 10:44	17 Jul 2018 00:58	1
HS18070454-09	003	06 Jul 2018 12:40		13 Jul 2018 10:44	19 Jul 2018 11:35	50
HS18070454-10	003A	06 Jul 2018 12:41		13 Jul 2018 10:44	19 Jul 2018 12:04	40
HS18070454-11	003B	06 Jul 2018 12:42		13 Jul 2018 10:44	17 Jul 2018 03:24	10
HS18070454-12	003C	06 Jul 2018 12:44		13 Jul 2018 10:44	18 Jul 2018 12:23	10
HS18070454-13	BACKGROUND 1	06 Jul 2018 12:46		13 Jul 2018 10:44	17 Jul 2018 03:53	1
HS18070454-14	BACKGROUND 2	06 Jul 2018 12:50		13 Jul 2018 10:44	17 Jul 2018 04:22	1
Batch ID R319840 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-01	001	06 Jul 2018 12:15			17 Jul 2018 05:49	500
HS18070454-02	001A	06 Jul 2018 12:18			17 Jul 2018 06:12	500
Batch ID R319845 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-03	001B	06 Jul 2018 12:20			17 Jul 2018 11:12	1
HS18070454-04	001C	06 Jul 2018 12:33			17 Jul 2018 10:48	1
HS18070454-14	BACKGROUND 2	06 Jul 2018 12:50			17 Jul 2018 11:36	1
Batch ID R319859 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-02	001A	06 Jul 2018 12:18			17 Jul 2018 15:07	5000
HS18070454-05	002	06 Jul 2018 12:25			17 Jul 2018 13:23	500
HS18070454-06	002A	06 Jul 2018 12:27			17 Jul 2018 16:26	5000
HS18070454-07	002B	06 Jul 2018 12:30			17 Jul 2018 16:53	5000
HS18070454-07	002B	06 Jul 2018 12:30			17 Jul 2018 14:15	500
HS18070454-08	002C	06 Jul 2018 12:35			17 Jul 2018 12:32	50
HS18070454-09	003	06 Jul 2018 12:40			17 Jul 2018 14:41	500
HS18070454-10	003A	06 Jul 2018 12:41			17 Jul 2018 12:57	50
Batch ID R319934 Test Name : VOLATILES BY SW8260C Matrix: Soil						
HS18070454-11	003B	06 Jul 2018 12:42			18 Jul 2018 01:03	1
HS18070454-12	003C	06 Jul 2018 12:44			18 Jul 2018 00:39	1
HS18070454-13	BACKGROUND 1	06 Jul 2018 12:46			18 Jul 2018 00:16	1

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: 130378		Instrument: FID-10		Method: TX1005					
MBLK	Sample ID: MBLK-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 17:39					
Client ID:		Run ID: FID-10_319892		SeqNo: 4652676		PrepDate: 13-Jul-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
>nC12 to nC28	ND	50							
>nC28 to nC35	ND	50							
Total Petroleum Hydrocarbon	ND	50							
Surr: 2-Fluorobiphenyl	20.23	0	25	0	80.9	70 - 130			
Surr: Trifluoromethyl benzene	18.22	0	25	0	72.9	70 - 130			
LCS	Sample ID: LCS-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 18:08					
Client ID:		Run ID: FID-10_319892		SeqNo: 4652677		PrepDate: 13-Jul-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
>nC12 to nC28	223.2	50	250	0	89.3	75 - 125			
Surr: 2-Fluorobiphenyl	21.46	0	25	0	85.9	70 - 130			
Surr: Trifluoromethyl benzene	22.59	0	25	0	90.4	70 - 130			
LCSD	Sample ID: LCSD-130378	Units: mg/Kg		Analysis Date: 16-Jul-2018 18:38					
Client ID:		Run ID: FID-10_319892		SeqNo: 4652678		PrepDate: 13-Jul-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
>nC12 to nC28	225.4	50	250	0	90.2	75 - 125	223.2	0.968	20
Surr: 2-Fluorobiphenyl	19.85	0	25	0	79.4	70 - 130	21.46	7.8	20
Surr: Trifluoromethyl benzene	21.63	0	25	0	86.5	70 - 130	22.59	4.33	20
MS	Sample ID: HS18070454-12MS	Units: mg/Kg		Analysis Date: 16-Jul-2018 19:36					
Client ID: 003C		Run ID: FID-10_319892		SeqNo: 4652680		PrepDate: 13-Jul-2018		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
>nC12 to nC28	3284	48	237.6	3958	-284	75 - 125			SEO
Surr: 2-Fluorobiphenyl	21.13	0	23.76	0	88.9	70 - 130			
Surr: Trifluoromethyl benzene	17.1	0	23.76	0	71.9	70 - 130			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions

Project: LE RANCH #7-1

WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: 130378		Instrument: FID-10		Method: TX1005						
MSD		Sample ID: HS18070454-12MSD		Units: mg/Kg		Analysis Date: 16-Jul-2018 20:06				
Client ID: 003C		Run ID: FID-10_319892		SeqNo: 4652681		PrepDate: 13-Jul-2018		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
>nC12 to nC28	3325	46	230.4	3958	-275	75 - 125	3284	1.26	20	SEO
Surr: 2-Fluorobiphenyl	21.3	0	23.04	0	92.4	70 - 130	21.13	0.794	20	
Surr: Trifluoromethyl benzene	16.76	0	23.04	0	72.8	70 - 130	17.1	1.96	20	
The following samples were analyzed in this batch:										
		HS18070454-01		HS18070454-02		HS18070454-03		HS18070454-04		
		HS18070454-05		HS18070454-06		HS18070454-07		HS18070454-08		
		HS18070454-09		HS18070454-10		HS18070454-11		HS18070454-12		
		HS18070454-13		HS18070454-14						

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319840		Instrument: VOA8		Method: SW8260					
MBLK	Sample ID: MBLKW1-071618	Units: ug/Kg		Analysis Date: 16-Jul-2018 23:19					
Client ID:	Run ID: VOA8_319840	SeqNo: 4651434		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	250							
Ethylbenzene	ND	250							
m,p-Xylene	ND	500							
o-Xylene	ND	250							
Toluene	ND	250							
Xylenes, Total	ND	250							
Surr: 1,2-Dichloroethane-d4	2505	0	2500	0	100	76 - 125			
Surr: 4-Bromofluorobenzene	2133	0	2500	0	85.3	80 - 120			
Surr: Dibromofluoromethane	2393	0	2500	0	95.7	80 - 119			
Surr: Toluene-d8	2499	0	2500	0	99.9	81 - 118			

LCS	Sample ID: VLCSW1-071618	Units: ug/Kg		Analysis Date: 16-Jul-2018 22:29					
Client ID:	Run ID: VOA8_319840	SeqNo: 4651433		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	48.97	5.0	50	0	97.9	75 - 124			
Ethylbenzene	47.99	5.0	50	0	96.0	70 - 123			
m,p-Xylene	96.1	10	100	0	96.1	77 - 125			
o-Xylene	47.62	5.0	50	0	95.2	78 - 122			
Toluene	47.72	5.0	50	0	95.4	76 - 122			
Xylenes, Total	143.7	5.0	150	0	95.8	77 - 128			
Surr: 1,2-Dichloroethane-d4	50.1	0	50	0	100	76 - 125			
Surr: 4-Bromofluorobenzene	49.59	0	50	0	99.2	80 - 120			
Surr: Dibromofluoromethane	47.09	0	50	0	94.2	80 - 119			
Surr: Toluene-d8	47.59	0	50	0	95.2	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319840		Instrument: VOA8		Method: SW8260						
MS		Sample ID: HS18070496-04MS		Units: ug/Kg		Analysis Date: 17-Jul-2018 05:01				
Client ID:		Run ID: VOA8_319840		SeqNo: 4651448		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4587	410	4100	486.4	100	70 - 130				
Ethylbenzene	5660	410	4100	1613	98.7	70 - 130				
m,p-Xylene	8242	820	8200	0	101	70 - 130				
o-Xylene	4132	410	4100	0	101	70 - 130				
Toluene	3907	410	4100	0	95.3	70 - 130				
Xylenes, Total	12370	410	12300	0	101	70 - 130				
Surr: 1,2-Dichloroethane-d4	3381	0	4100	0	82.5	70 - 126				
Surr: 4-Bromofluorobenzene	4340	0	4100	0	106	70 - 130				
Surr: Dibromofluoromethane	3907	0	4100	0	95.3	70 - 130				
Surr: Toluene-d8	3795	0	4100	0	92.6	70 - 130				

MSD		Sample ID: HS18070496-04MSD		Units: ug/Kg		Analysis Date: 17-Jul-2018 05:25				
Client ID:		Run ID: VOA8_319840		SeqNo: 4651449		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	5592	410	4100	486.4	125	70 - 130	4587	19.7	30	
Ethylbenzene	6608	410	4100	1613	122	70 - 130	5660	15.4	30	
m,p-Xylene	10240	820	8200	0	125	70 - 130	8242	21.6	30	
o-Xylene	5108	410	4100	0	125	70 - 130	4132	21.1	30	
Toluene	4827	410	4100	0	118	70 - 130	3907	21.1	30	
Xylenes, Total	15350	410	12300	0	125	70 - 130	12370	21.5	30	
Surr: 1,2-Dichloroethane-d4	3240	0	4100	0	79.0	70 - 126	3381	4.25	30	
Surr: 4-Bromofluorobenzene	4363	0	4100	0	106	70 - 130	4340	0.54	30	
Surr: Dibromofluoromethane	3581	0	4100	0	87.3	70 - 130	3907	8.71	30	
Surr: Toluene-d8	3810	0	4100	0	92.9	70 - 130	3795	0.398	30	

The following samples were analyzed in this batch: HS18070454-01 HS18070454-02

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319845		Instrument: VOA5		Method: SW8260					
MBLK	Sample ID: VBLKS1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 10:00					
Client ID:	Run ID: VOA5_319845	SeqNo: 4651871		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	5.0							
Ethylbenzene	ND	5.0							
m,p-Xylene	ND	10							
o-Xylene	ND	5.0							
Toluene	ND	5.0							
Xylenes, Total	ND	5.0							
Surr: 1,2-Dichloroethane-d4	48.35	0	50	0	96.7	76 - 125			
Surr: 4-Bromofluorobenzene	50.34	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	51.36	0	50	0	103	80 - 119			
Surr: Toluene-d8	51.67	0	50	0	103	81 - 118			

LCS	Sample ID: VLCSS1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 09:13					
Client ID:	Run ID: VOA5_319845	SeqNo: 4651870		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	54.39	5.0	50	0	109	75 - 124			
Ethylbenzene	59.95	5.0	50	0	120	70 - 123			
m,p-Xylene	120	10	100	0	120	77 - 125			
o-Xylene	59.71	5.0	50	0	119	78 - 122			
Toluene	59.63	5.0	50	0	119	76 - 122			
Xylenes, Total	179.7	5.0	150	0	120	77 - 128			
Surr: 1,2-Dichloroethane-d4	49.62	0	50	0	99.2	76 - 125			
Surr: 4-Bromofluorobenzene	52.51	0	50	0	105	80 - 120			
Surr: Dibromofluoromethane	51.99	0	50	0	104	80 - 119			
Surr: Toluene-d8	50.62	0	50	0	101	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319845		Instrument: VOA5		Method: SW8260						
MS		Sample ID: HS18070571-11MS		Units: ug/Kg		Analysis Date: 17-Jul-2018 12:00				
Client ID:		Run ID: VOA5_319845		SeqNo: 4652286		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	42.29	5.0	50	0	84.6	70 - 130				
Ethylbenzene	47.02	5.0	50	0	94.0	70 - 130				
m,p-Xylene	95.58	10	100	0	95.6	70 - 130				
o-Xylene	48.34	5.0	50	0	96.7	70 - 130				
Toluene	46.45	5.0	50	0	92.9	70 - 130				
Xylenes, Total	143.9	5.0	150	0	95.9	70 - 130				
Surr: 1,2-Dichloroethane-d4	48.52	0	50	0	97.0	70 - 126				
Surr: 4-Bromofluorobenzene	52.1	0	50	0	104	70 - 130				
Surr: Dibromofluoromethane	51.28	0	50	0	103	70 - 130				
Surr: Toluene-d8	48.76	0	50	0	97.5	70 - 130				

MSD		Sample ID: HS18070571-11MSD		Units: ug/Kg		Analysis Date: 17-Jul-2018 12:23				
Client ID:		Run ID: VOA5_319845		SeqNo: 4652287		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	56.5	5.0	49.5	0	114	70 - 130	42.29	28.8	30	
Ethylbenzene	63.59	5.0	49.5	0	128	70 - 130	47.02	30	30	
m,p-Xylene	129.3	9.9	99	0	131	70 - 130	95.58	30	30	S
o-Xylene	64.63	5.0	49.5	0	131	70 - 130	48.34	28.8	30	S
Toluene	63.5	5.0	49.5	0	128	70 - 130	46.45	31	30	R
Xylenes, Total	193.9	5.0	148.5	0	131	70 - 130	143.9	29.6	30	S
Surr: 1,2-Dichloroethane-d4	47.68	0	49.5	0	96.3	70 - 126	48.52	1.75	30	
Surr: 4-Bromofluorobenzene	50.3	0	49.5	0	102	70 - 130	52.1	3.51	30	
Surr: Dibromofluoromethane	50.94	0	49.5	0	103	70 - 130	51.28	0.663	30	
Surr: Toluene-d8	48.86	0	49.5	0	98.7	70 - 130	48.76	0.215	30	

The following samples were analyzed in this batch: HS18070454-03 HS18070454-04 HS18070454-14

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319859		Instrument: VOA8		Method: SW8260					
MBLK	Sample ID: MBLKW1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 11:36					
Client ID:	Run ID: VOA8_319859	SeqNo: 4652346		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	250							
Ethylbenzene	ND	250							
m,p-Xylene	ND	500							
o-Xylene	ND	250							
Toluene	ND	250							
Xylenes, Total	ND	250							
Surr: 1,2-Dichloroethane-d4	2529	0	2500	0	101	76 - 125			
Surr: 4-Bromofluorobenzene	2234	0	2500	0	89.3	80 - 120			
Surr: Dibromofluoromethane	2394	0	2500	0	95.8	80 - 119			
Surr: Toluene-d8	2439	0	2500	0	97.6	81 - 118			

LCS	Sample ID: VLCSW1-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 10:46					
Client ID:	Run ID: VOA8_319859	SeqNo: 4652345		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.18	5.0	50	0	98.4	75 - 124			
Ethylbenzene	48.38	5.0	50	0	96.8	70 - 123			
m,p-Xylene	97.95	10	100	0	98.0	77 - 125			
o-Xylene	48.67	5.0	50	0	97.3	78 - 122			
Toluene	47.47	5.0	50	0	94.9	76 - 122			
Xylenes, Total	146.6	5.0	150	0	97.7	77 - 128			
Surr: 1,2-Dichloroethane-d4	51.02	0	50	0	102	76 - 125			
Surr: 4-Bromofluorobenzene	50.58	0	50	0	101	80 - 120			
Surr: Dibromofluoromethane	47.71	0	50	0	95.4	80 - 119			
Surr: Toluene-d8	46.61	0	50	0	93.2	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319859		Instrument: VOA8		Method: SW8260						
MS		Sample ID: HS18070454-02MS		Units: ug/Kg		Analysis Date: 17-Jul-2018 15:34				
Client ID: 001A		Run ID: VOA8_319859		SeqNo: 4653572		PrepDate:		DF: 5000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	390100	24000	245000	1829	158	70 - 130				S
Ethylbenzene	557900	24000	245000	166100	160	70 - 130				S
m,p-Xylene	887500	49000	490000	84010	164	70 - 130				S
o-Xylene	445400	24000	245000	45550	163	70 - 130				S
Toluene	436900	24000	245000	49250	158	70 - 130				S
Xylenes, Total	1333000	24000	735000	129600	164	70 - 130				S
Surr: 1,2-Dichloroethane-d4	257600	0	245000	0	105	70 - 126				
Surr: 4-Bromofluorobenzene	311100	0	245000	0	127	70 - 130				
Surr: Dibromofluoromethane	271500	0	245000	0	111	70 - 130				
Surr: Toluene-d8	301600	0	245000	0	123	70 - 130				

MSD		Sample ID: HS18070454-02MSD		Units: ug/Kg		Analysis Date: 17-Jul-2018 16:00				
Client ID: 001A		Run ID: VOA8_319859		SeqNo: 4653573		PrepDate:		DF: 5000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	361400	24000	245000	1829	147	70 - 130	390100	7.63	30	S
Ethylbenzene	537100	24000	245000	166100	151	70 - 130	557900	3.8	30	S
m,p-Xylene	827900	49000	490000	84010	152	70 - 130	887500	6.95	30	S
o-Xylene	416300	24000	245000	45550	151	70 - 130	445400	6.75	30	S
Toluene	409900	24000	245000	49250	147	70 - 130	436900	6.38	30	S
Xylenes, Total	1244000	24000	735000	129600	152	70 - 130	1333000	6.89	30	S
Surr: 1,2-Dichloroethane-d4	256000	0	245000	0	104	70 - 126	257600	0.609	30	
Surr: 4-Bromofluorobenzene	311300	0	245000	0	127	70 - 130	311100	0.0647	30	
Surr: Dibromofluoromethane	269100	0	245000	0	110	70 - 130	271500	0.88	30	
Surr: Toluene-d8	301500	0	245000	0	123	70 - 130	301600	0.0579	30	

The following samples were analyzed in this batch:

HS18070454-02	HS18070454-05	HS18070454-06	HS18070454-07
HS18070454-08	HS18070454-09	HS18070454-10	

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319934		Instrument: VOA5		Method: SW8260					
MBLK	Sample ID: VBLKS2-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 22:18					
Client ID:	Run ID: VOA5_319934	SeqNo: 4653669		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	5.0							
Ethylbenzene	ND	5.0							
m,p-Xylene	ND	10							
o-Xylene	ND	5.0							
Toluene	ND	5.0							
Xylenes, Total	ND	5.0							
Surr: 1,2-Dichloroethane-d4	47.77	0	50	0	95.5	76 - 125			
Surr: 4-Bromofluorobenzene	50.81	0	50	0	102	80 - 120			
Surr: Dibromofluoromethane	50.35	0	50	0	101	80 - 119			
Surr: Toluene-d8	50.59	0	50	0	101	81 - 118			

LCS	Sample ID: VLCSS2-071718	Units: ug/Kg		Analysis Date: 17-Jul-2018 21:31					
Client ID:	Run ID: VOA5_319934	SeqNo: 4653668		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.58	5.0	50	0	85.2	75 - 124			
Ethylbenzene	46	5.0	50	0	92.0	70 - 123			
m,p-Xylene	92.89	10	100	0	92.9	77 - 125			
o-Xylene	47.34	5.0	50	0	94.7	78 - 122			
Toluene	45.74	5.0	50	0	91.5	76 - 122			
Xylenes, Total	140.2	5.0	150	0	93.5	77 - 128			
Surr: 1,2-Dichloroethane-d4	50.39	0	50	0	101	76 - 125			
Surr: 4-Bromofluorobenzene	51.58	0	50	0	103	80 - 120			
Surr: Dibromofluoromethane	50.24	0	50	0	100	80 - 119			
Surr: Toluene-d8	50.06	0	50	0	100	81 - 118			

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
WorkOrder: HS18070454

QC BATCH REPORT

Batch ID: R319934		Instrument: VOA5		Method: SW8260						
MS		Sample ID: HS18070626-04MS		Units: ug/Kg		Analysis Date: 18-Jul-2018 07:12				
Client ID:		Run ID: VOA5_319934		SeqNo: 4653677		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	31.24	4.0	40.5	0	77.1	70 - 130				
Ethylbenzene	33.22	4.0	40.5	0	82.0	70 - 130				
m,p-Xylene	67.34	8.1	81	0	83.1	70 - 130				
o-Xylene	34.88	4.0	40.5	0	86.1	70 - 130				
Toluene	34.61	4.0	40.5	0	85.5	70 - 130				
Xylenes, Total	102.2	4.0	121.5	0	84.1	70 - 130				
Surr: 1,2-Dichloroethane-d4	38.73	0	40.5	0	95.6	70 - 126				
Surr: 4-Bromofluorobenzene	42.42	0	40.5	0	105	70 - 130				
Surr: Dibromofluoromethane	43.3	0	40.5	0	107	70 - 130				
Surr: Toluene-d8	41.56	0	40.5	0	103	70 - 130				

MSD		Sample ID: HS18070626-04MSD		Units: ug/Kg		Analysis Date: 18-Jul-2018 07:35				
Client ID:		Run ID: VOA5_319934		SeqNo: 4653678		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	35.08	3.9	39	0	89.9	70 - 130	31.24	11.6	30	
Ethylbenzene	37.19	3.9	39	0	95.4	70 - 130	33.22	11.3	30	
m,p-Xylene	74.59	7.8	78	0	95.6	70 - 130	67.34	10.2	30	
o-Xylene	38.61	3.9	39	0	99.0	70 - 130	34.88	10.2	30	
Toluene	37.34	3.9	39	0	95.7	70 - 130	34.61	7.58	30	
Xylenes, Total	113.2	3.9	117	0	96.8	70 - 130	102.2	10.2	30	
Surr: 1,2-Dichloroethane-d4	39.04	0	39	0	100	70 - 126	38.73	0.804	30	
Surr: 4-Bromofluorobenzene	40.67	0	39	0	104	70 - 130	42.42	4.22	30	
Surr: Dibromofluoromethane	41.99	0	39	0	108	70 - 130	43.3	3.07	30	
Surr: Toluene-d8	39.46	0	39	0	101	70 - 130	41.56	5.17	30	

The following samples were analyzed in this batch: HS18070454-11 HS18070454-12 HS18070454-13

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

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions**Project:** LE RANCH #7-1**WorkOrder:** HS18070454**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 detected below quantitation limit
M	Manually integrated, see raw data for justification
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/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Group Houston, Corp

Date: 20-Jul-18

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2016-2018	31-Jul-2018
Oklahoma	2017-088	31-Aug-2018
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Kansas	E-10352 2017-218	31-Jul-2018
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019

ALS Group Houston, Corp

Date: 20-Jul-18

Client: Clean Source Solutions
Project: LE RANCH #7-1
Work Order: HS18070454

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18070454-01	001	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-02	001A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-03	001B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-04	001C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-05	002	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-06	002A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-07	002B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-08	002C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-09	003	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-10	003A	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-11	003B	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-12	003C	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-13	BACKGROUND 1	Login	7/11/2018 12:01:45 PM	RPG	VOA098
HS18070454-14	BACKGROUND 2	Login	7/11/2018 12:01:45 PM	RPG	VOA098

Date: 20-Jul-18

Sample Receipt Checklist

Client Name: Clean Source Solutions
Work Order: HS18070454

Date/Time Received: **11-Jul-2018 08:25**
Received by: **RPG**

Checklist completed by: Jared R. Makan 11-Jul-2018
eSignature Date

Reviewed by: Nicole Edwards 13-Jul-2018
eSignature Date

Matrices: **Soil**Carrier name: **Greyhound**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
TX1005 solids received in hermetically sealed vials?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Temperature(s)/Thermometer(s): 1.1c/0.6c UC/C IR11

Cooler(s)/Kit(s): Blue

Date/Time sample(s) sent to storage: 07/11/2018 16:30

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:

Corrective Action:



Environmental

Chain of Custody Form

Page 1 of 2

COC ID: 123456

☐ Cincinnati, OH
+1 513 733 5336

☐ Holland, MI
+1 616 399 6070

☐ Salt Lake City, UT
+1 801 266 7700

☐ Everett, WA
+1 425 356 2600

☒ Houston, TX
+1 281 530 5656

☐ Spring City, PA
+1 610 948 4903

☐ Fort Collins, CO
+1 970 490 1511

☐ Middletown, PA
+1 717 944 5541

☐ York, PA
+1 717 505 5230

Customer Information			Project Information					Parameter/Method Request for Analysis												
Purchase Order		Project Name	LE RANCH #7-1					A	BTEX											
Work Order		Project Number						B	TPH - DRO											
Company Name	CLEAN SOURCE SOLUTIONS	Bill To Company	CLEAN SOURCE SOLUTIONS					C												
Send Report To	CHRIS DUNN	Invoice Attn.	CHRIS DUNN					D												
Address	PO Box 607	Address						E												
City/State/Zip	REDMONT, OK 73078	City/State/Zip						F												
Phone	405-265-2400	Phone						G												
Fax		Fax						H												
e-Mail Address	CDUNN@CLEANSOURCE.COM	e-Mail Address						I												
								J												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	Q01	7/6/18	12:15P	S	ICE	1	X	X												
2	Q01A	7/6/18	12:28P	S	ICE	1	X	X												
3	Q01B	7/6/18	12:28P	S	ICE	1	X	X												
4	Q01C	7/6/18	12:23P	S	ICE	1	X	X												
5	Q02	7/6/18	12:25P	S	ICE	1	X	X												
6	Q02A	7/6/18	12:27P	S	ICE	1	X	X												
7	Q02B	7/6/18	12:30P	S	ICE	1	X	X												
8	Q02C	7/6/18	12:35P	S	ICE	1	X	X												
9	Q03	7/6/18	12:40P	S	ICE	1	X	X												
10	Q03A	7/6/18	12:41P	S	ICE	1	X	X												
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Other		Results Due Date:												
CHRIS DUNN				STD 10 Wk Days		5 Wk Days		2 Wk Days		24 Hour										
Relinquished by:	Date:	Time:	Received by:	Notes:																
CHRIS DUNN	7/9/18	5:45P	CHRIS DUNN																	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.																
CHRIS DUNN	7/10/18	10:23P	CHRIS DUNN	QC Package: (Check Box Below)																
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:																
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																				

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

 cooler = BLUE
 IR# 11 CF-0.5c

Copyright 2011 by ALS Group



Environmental

Chain of Custody Form

Page 2 of 2

COC ID: 123456

☐ Cincinnati, OH
+1 513 733 5336

☐ Holland, MI
+1 616 399 6070

☐ Salt Lake City, UT
+1 801 266 7700

☐ Everett, WA
+1 425 356 2600


☒ Houston, TX
+1 281 530 5656

☐ Spring City, PA
+1 610 948 4903

☐ Fort Collins, CO
+1 970 490 1511

☐ Middletown, PA
+1 717 944 5541

☐ York, PA
+1 717 505 5200

Customer Information			Project Information				Parameter/Method Request for Analysis													
Purchase Order		Project Name	LE RANCH #7-1				A	BTEX												
Work Order		Project Number					B	TPH-120												
Company Name	CLEAN SOURCE SOLUTIONS	Bill To Company	CLEAN SOURCE SOLUTIONS				C	<div style="text-align: center;"> HS18070454 Clean Source Solutions LE RANCH #7-1  </div>												
Send Report To	CHRIS DUNN	Invoice Attn:	CHRIS DUNN				D													
Address	PO Box 607	Address					E													
City/State/Zip	PIEDMONT, OK 73078	City/State/Zip					F													
Phone	405-265-2400	Phone					G													
Fax		Fax					H													
e-Mail Address	DUNN@CLEANSOURCEOK.COM	e-Mail Address					I													
J																				
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	003B	7/16/18	12:47p	S	ICE	1	X	X												
2	003C	7/16/18	12:44p	S	ICE	1	X	X												
3	BACKGROUND 1	7/16/18	12:46p	S	ICE	1	X	X												
4	BACKGROUND 2	7/16/18	12:50p	S	ICE	1	X	X												
5																				
6																				
7																				
8																				
9																				
10																				
Sampler(s): Please Print & Sign CHRIS DUNN / Chris		Shipment Method:		Required Turnaround Time:		<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:												
Relinquished by:	Date:	Time:	Received by:		Notes:															
Relinquished by:	Date:	Time:	Received by (Laboratory):		Cooler Temp.															
Relinquished by:	Date:	Time:	Received by (Laboratory):		QC Package: (Check Box Below)															
Relinquished by:	Date:	Time:	Received by (Laboratory):		<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:															
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NAOH 5-NA2S2O3 6-NAHSO4 7-Other 8-4 degrees C 9-5035																				

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Copyright 2011 by ALS Group

SRef#
CBL#
PO#Total Weight: 88
Total Pieces: 2

423681

GPX AGENT PLEASE ADD
BUSBILL

Piece 1 of 2

Ship to:

ALS Global Dallas
Danielle Winnings
10450 Stancliff Rd
Houston, TX 77099
281-5305656

1-866-SHIPGPX

SRef#
CBL#
PO#Total Weight: 88
Total Pieces: 2

423681

GPX AGENT PLEASE ADD
BUSBILL

Piece 2 of 2

Ship to:

ALS Global Dallas
Danielle Winnings
10450 Stancliff Rd
Houston, TX 77099
281-5305656

1-866-SHIPGPX

	ALS Environmental
	10450 Stancliff Rd., Suite 210
	Houston, Texas 77099
	Tel. +1 281 530 5656 Fax. +1 281 530 5887

CUSTODY SEAL		
Date: 7-10-18	Time: 11:45	
Name: Danielle Winnings		
Company: ALS		

	ALS Environmental
	10450 Stancliff Rd., Suite 210
	Houston, Texas 77099
	Tel. +1 281 530 5656 Fax. +1 281 530 5887

CUSTODY SEAL		
Date: 7-10-18	Time: 11:45	
Name: Danielle Winnings		
Company: ALS		

Bratcher, Mike, EMNRD

From: Billings, Bradford, EMNRD
Sent: Tuesday, December 18, 2018 1:44 PM
To: Rory McMinn; Bratcher, Mike, EMNRD; Chris Dunn; Mark Bess
Subject: RE: [EXT] December 13, 2018 Out-of -Compliance letter from Griswold

Hi,

Received all attached. As near as I can tell, no approval of plan was given by OCD for site in question. Correct?

If this is the case you can resubmit workplan to me incorporating the New Rule guidelines if this is your wish. Just indicate it on the re-submittal. We can move this along quickly to avoid compliance issue(s). But must be handled soon so we can not have to incorporate any compliance order structure. You are not the only one in the time pinch of the rule change and I am trying to be very flexible in response as long as things move pretty quickly forward.

Let me know what you intend or if you have more questions. We appreciate your efforts.

Bradford Billings
EMNRD/OCD
Santa Fe

-----Original Message-----

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, December 18, 2018 10:42 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Chris Dunn <cdunn@cleansourceok.com>; Mark Bess <mbess@naico.com>
Subject: [EXT] December 13, 2018 Out-of -Compliance letter from Griswold

Brad,

Attached is an Out-of[-Compliance letter received yesterday from Griswold. I am copying Bratcher and Chris Dunn, Clean Source Solutions and Mark Brees, NAICO Insurance regarding the notice. We got caught up in the middle of pregnancy and change of job issues in getting the contractor, Clean Source Solutions through the process of being allowed to perform the cleanup for our insurance carrier at two sites in Chaves County. Both of the Clean Source Solutions' remediation plans are attached. You will note that the dates are in August of 2018. Both were submitted to the OCD office in Artesia for approval. Bratcher was still involved environmentally and not yet just administrative. Mike wanted further delineation of Clean Source's track record and of their process. Chris Dunn provide same to him.

We fell through the cracks in changes, including the change in rules & policy, and when we were finally notified by one of the lady's in the Artesia office that Mike was no longer handling the environmental, just before the deadline to change our program tot he new rules was to take effect, it was too damn late.

Please note that we notified OCD upon recognition of spills because we wanted to be in compliance and we remain in that mindset. We will provide or perform whatever is required to remain in compliance as we and our insurance carrier would like t get these cleanups behind us.

Regards,

Rory McMinn

575/626-7100

Bratcher, Mike, EMNRD

From: Rory McMinn <rory@rmcminn.com>
Sent: Tuesday, December 18, 2018 5:04 PM
To: Billings, Bradford, EMNRD; Bratcher, Mike, EMNRD; Chris Dunn; Mark Bess
Subject: Re: [EXT] December 13, 2018 Out-of -Compliance letter from Griswold
Attachments: rory.vcf

Brad,

No approval of the plan for either well was ever given. However, we greatly appreciate your consideration. We will re-submit a workplan and it will incorporate the New Rule Guidelines as you have outlined and we have chosen. I will confirm with Chris Dunn that he has the conforming plans ready to be re-submitted. If not, we will get them ready ASAP and get them to you.

Thank you for your response.

Rory McMinn

On 12/18/2018 1:44 PM, Billings, Bradford, EMNRD wrote:

> Hi,
>
> Received all attached. As near as I can tell, no approval of plan was given by OCD for site in question. Correct?
>
> If this is the case you can resubmit workplan to me incorporating the New Rule guidelines if this is your wish. Just indicate it on the re-submittal. We can move this along quickly to avoid compliance issue(s). But must be handled soon so we can not have to incorporate any compliance order structure. You are not the only one in the time pinch of the rule change and I am trying to be very flexible in response as long as things move pretty quickly forward.
>
> Let me know what you intend or if you have more questions. We appreciate your efforts.
>
> Bradford Billings
> EMNRD/OCD
> Santa Fe
>
> -----Original Message-----
> From: Rory McMinn <rory@rmcminn.com>
> Sent: Tuesday, December 18, 2018 10:42 AM
> To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>;
> Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Chris Dunn
> <cdunn@cleansourceok.com>; Mark Bess <mbess@naico.com>
> Subject: [EXT] December 13, 2018 Out-of -Compliance letter from
> Griswold
>
> Brad,
>
> Attached is an Out-of[-Compliance letter received yesterday from Griswold. I am copying Bratcher and Chris Dunn, Clean Source Solutions and Mark Brees, NAICO Insurance regarding the notice. We got caught up in the middle of pregnancy and change of job issues in getting the contractor, Clean Source Solutions through the process of being

allowed to perform the cleanup for our insurance carrier at two sites in Chaves County. Both of the Clean Source Solutions' remediation plans are attached. You will note that the dates are in August of 2018. Both were submitted to the OCD office in Artesia for approval. Bratcher was still involved environmentally and not yet just administrative. Mike wanted further delineation of Clean Source's track record and of their process. Chris Dunn provide same to him.

>

> We fell through the cracks in changes, including the change in rules & policy, and when we were finally notified by one of the lady's in the Artesia office that Mike was no longer handling the environmental, just before the deadline to change our program tot he new rules was to take effect, it was too damn late.

>

> Please note that we notified OCD upon recognition of spills because we wanted to be in compliance and we remain in that mindset. We will provide or perform whatever is required to remain in compliance as we and our insurance carrier would like t get these cleanups behind us.

>

>

> Regards,

>

> Rory McMinn

>

> 575/626-7100

>

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 386101

CONDITIONS

Operator: QUATRO OSOS E&P, LLC 25 Miles East of Roswell on US Roswell, NM 88202	OGRID: 372241
	Action Number: 386101
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Historical document upload.	9/24/2024