



June 14, 2018

#5E26084-BG9

Lucid Energy  
Kerry Egan  
326 W. Quay  
Artesia, NM 88210

SUBJECT: SOIL REMEDIATION CLOSURE REPORT FOR THE ROADRUNNER GAS PLANT(2RP-4654), EDDY COUNTY, NEW MEXICO

Dear Mr. Egan:

Souder, Miller & Associates (SMA) has prepared this CLOSURE REPORT that describes the assessment, initial delineation and remediation for a release associated with the Roadrunner Gas Plant. The site is in SECTION 32, TOWNSHIP 23S, RANGE 28E, NMPM, Eddy County, New Mexico, on private land. Figure 1 illustrates the vicinity and location of the site. Table 1 summarizes release information.

<b>Table 1: Release information and Site Ranking</b>	
Name	Roadrunner Gas Plant
Company	Lucid Energy Group
Incident Number	2RP-4654
API Number	fAB1806740738
Location	32.266960, -104.116886
Estimated Date of Release	March 4, 2018
Date Reported to NMOCD	March 8, 2018
Land Owner	Private
Reported To	NM Oil Conservation Division (NMOCD)
Source of Release	Drain Valve
Released Material	Tri-ethylene Glycol
Released Volume	1000 gallons (~24 bbls)
Recovered Volume	0
Net Release	1000 gallons (~24 bbls)
Nearest Waterway	Carlsbad Irrigation District Canal is 1200 ft northeast of the location
Depth to Groundwater	Estimated to be less than 50 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	March 8, 2018, April 24, 2018, May 22, 2018

## **1.0 Background**

An open drain valve caused the Tri-ethylene Glycol (TEG) tank to fill and overflow causing the release of approximately 24 bbls of TEG. The release ran across the gravel pad of the facility impacting approximately 50 feet by 50 feet of surface area. The TEG had already been in circulation, and therefore was expected to contain potential hydrocarbon and chloride contamination.

## **2.0 Site Ranking and Land Jurisdiction**

Loving is approximately one mile northeast of the release location. The elevation of the release site is approximately 3,129 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs). NMOSE data in the area has plenty of data points to support this determination.

Recommended Remediation Action Levels (RRALs) are determined by the site ranking according to the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (1993). Table 2 has the remediation standards and the site ranking for this location. Justification for this site ranking is found in Figure 1 and Appendix B.

Table 2.

<b>Soil Remediation Standards</b>	<b>0 to 9</b>	<b>10 to 19</b>	<b>&gt;19</b>
<b>Benzene</b>	<b>10 PPM</b>	<b>10 PPM</b>	<b>10 PPM</b>
<b>BTEX</b>	<b>50 PPM</b>	<b>50 PPM</b>	<b>50 PPM</b>
<b>TPH</b>	<b>5000 PPM</b>	<b>1000 PPM</b>	<b>100 PPM</b>

<b>Depth to Groundwater</b>	<b>NMOCD Numeric Rank</b>
< 50 BGS = 20	20
50' to 99' = 10	
>100' = 0	
<b>Distance to Nearest Surface Water</b>	<b>NMOCD Numeric Rank</b>
< 200' = 20	
200' - 1000' = 10	
>1000' = 0	0
<b>Well Head Protection</b>	<b>NMOCD Numeric Rank</b>
<1000' (or <200' domestic) = 20	
> 1000' = 0	0
<b>Total Site Ranking</b>	<b>20</b>

## **3.0 Release Characterization**

Immediately after the release, the gravel and approximately 3 inches of heavily impacted soils were scraped and hauled off to an NMOCD approved facility. On March 8, 2018, SMA field personnel assessed the release area. Three sample locations were augered by hand to a maximum depth of 1 foot bgs to characterize and delineate the release. Sample location L1 was collected from the point of release and is considered to be the most heavily impacted. All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody

protocols to Hall Environmental Analysis Laboratory for analysis for BTEX by EPA Method 8021, TPH EPA Method 418.1 and chlorides EPA Method 300.0. Sample locations are depicted on Figure 2. All laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

Delineation samples indicated that contamination extended to less than one foot at L2, and beyond one foot in the areas of L1 and L3.

#### **4.0 Soil Remediation**

With approval from area utilities owners via 811, the site was excavated to 1.5 feet bgs around L1 and L3, and to 1 foot bgs at L2. On April 24, 2018 samples were collected from the excavation area at locations L1 and L3. Results from sample location L1 indicated contaminants below RRALs; however, location L3 results indicated TPH remained elevated above the RRAL, and further excavation was recommended. This location was further excavated approximately three inches. On May 22, 2018 SMA personnel resampled the location of L3. After final excavation, all samples locations are within NMOCD recommended remediation action levels (RRALs). No further action is recommended at this time. Contaminated soil was disposed of at an NMOCD approved facility.

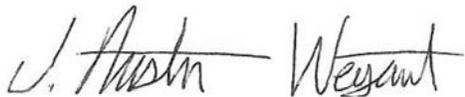
#### **5.0 Scope and Limitations**

The scope of our services consisted of the performance of assessment sampling, verification of release stabilization, regulatory liaison, soil remediation, and preparation of this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Austin Weyant  
Project Scientist



Shawna Chubbuck  
Senior Scientist

**ATTACHMENTS:**

**Figures:**

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Site and Sample Location Map

**Tables:**

Table 3: Summary of Sample Results

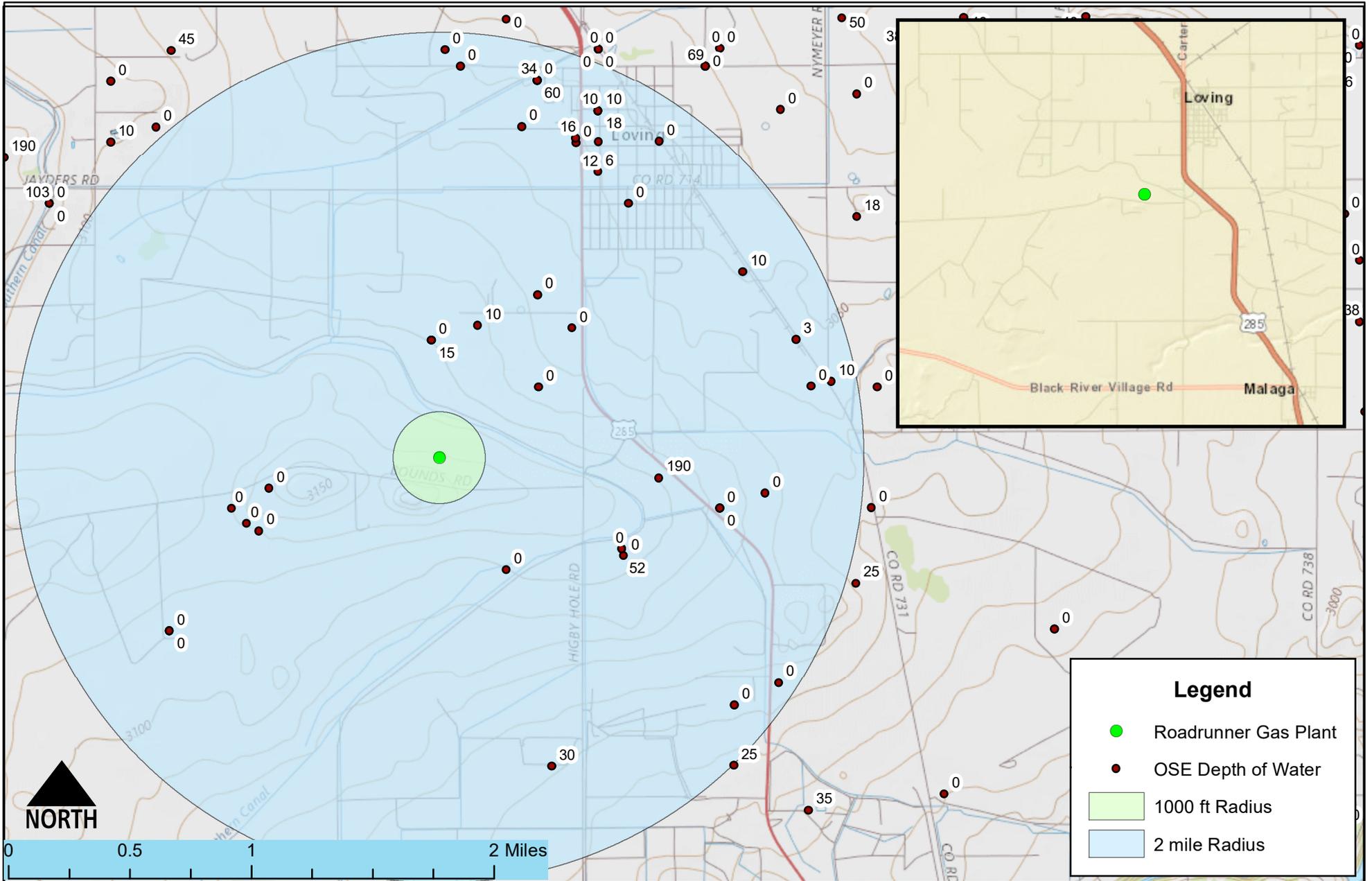
**Appendices:**

Appendix A: Form C141 Initial and Final

Appendix B: NMOSE Wells Report

Appendix C: Laboratory Analytical Reports

**FIGURE 1**  
**VICINITY AND NMOSE**  
**DATA MAP**



Vicinity and Well Head Protection Map  
 Roadrunner Gas Plant - Lucid  
 S 32-T23S-R28E, New Mexico

Figure 1

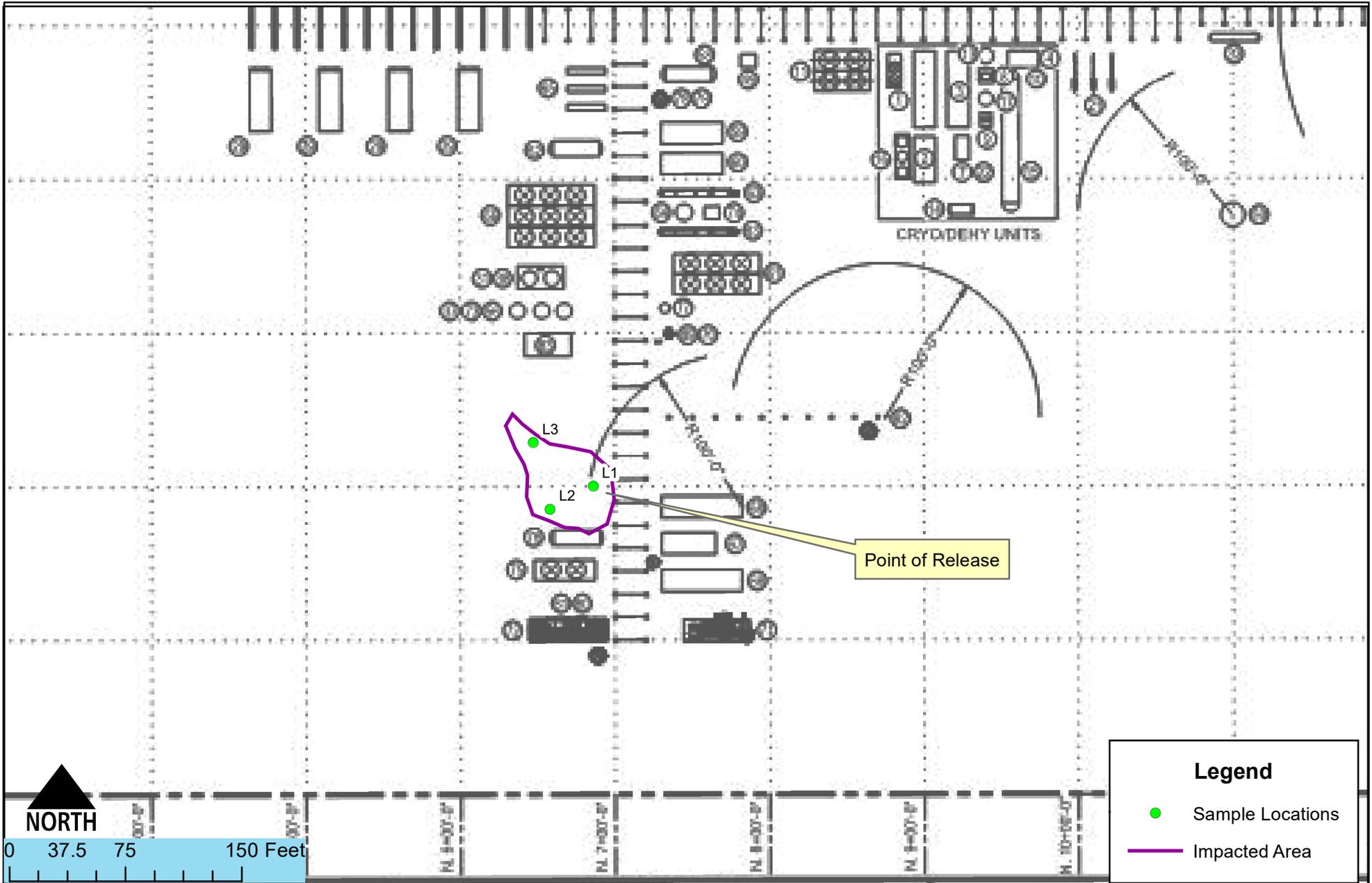
Date Saved: 3/12/2018  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Copyright 2015 Souder, Miller & Associates - All Rights Reserved

Revisions  
 Descr: \_\_\_\_\_  
 Descr: \_\_\_\_\_  
 Drawn **Heather Patterson**  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



201 South Halaguena Street  
 Carlsbad, New Mexico 88221  
 (575) 689-7040  
 www.soudermiller.com  
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**FIGURE 2**  
**SITE AND SAMPLE**  
**LOCATION MAP**



Site and Sample Location Map  
 Roadrunner Gas Plant - Lucid  
 S 32-T23S-R28E, New Mexico

Figure 2

Date Saved: 6/14/2018  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 Copyright 2015 Souder, Miller & Associates - All Rights Reserved

Drawn **Heather Patterson**  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



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**TABLE 3**  
**SUMMARY SAMPLE RESULTS**

## Roadrunner Gas Plant

Table 3.

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- Laboratory mg/Kg
NMOCD RRAL's for Site Ranking 20				50 mg/Kg	10 mg/Kg				100 mg/Kg	
L1	3/8/2018	0.5	excavated	<0.23	<0.025	<5	780	<48	<b>780</b>	1400
	3/8/2018	1	excavated	<0.23	<0.023	<4.7	150	<48	<b>150</b>	500
	4/24/2018	1.5	in-situ	--	--	<4.7	36	<48	36	310
L2	3/8/2018	0.5	excavated	0.077	<0.025	<5	5600	<440	<b>5600</b>	110
	3/8/2018	1	in-situ	<0.23	<0.024	<4.8	23	<49	23	110
L3	3/8/2018	0.5	excavated	<0.23	<0.024	<4.9	820	<50	<b>820</b>	92
	3/8/2018	1	excavated	<0.23	<0.023	<4.6	230	<46	<b>230</b>	120
	4/24/2018	1.5	excavated	--	--	<4.7	200	<46	<b>200</b>	700
	5/22/2018	1.75	in-situ	--	--	<4.7	<10	<50	<64.7	99
SP	3/8/2018	spill pile	haul	0.46	0.04	1.6	16,000	4,900	<b>20,902</b>	300

"--" = Not Analyzed

**APPENDIX A**  
**FORM C141 INITIAL AND FINAL**

**NM OIL CONSERVATION**

ARTESTA DISTRICT

MAR 08 2018

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised August 8, 2011

**RECEIVED**

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

PAB 1806 740 738  
NAB 1806 740 932

**Release Notification and Corrective Action**

**OPERATOR**

X Initial Report      Final Report

Name of Company: Lucid Energy Delaware #371960		Contact: Kerry Egan
Address: 201 South Fourth Artesia, NM 88210		Telephone No.: 575 513-8988
Facility Name: Roadrunner Gas Plant		Facility Type: Gas Plant
Surface Owner: Lucid Energy Delaware	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	32	23S	28E					EDDY

Latitude 32.266960° Longitude -104.116886°

**NATURE OF RELEASE**

Type of Release: Tri-ethylene Glycol	Volume of Release: 1000 gallons	Volume Recovered: None
Source of Release: Drain Valve left open on filter case.	Date and Hour of Occurrence: 3/4/18 6:00PM	Date and Hour of Discovery: 3/4/18 7:00PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* The drain valve on a filter case was opened during filter change out. The valve was not closed prior to putting the filter case back into service. The TEG holding tank filled and overflowed before the valve was identified and closed. In response the pump controlling the level in the tank has been set to automatically turn preventing further overflow.

Describe Area Affected and Cleanup Action Taken.\*

The TEG affected gravel/soil in an area approximately 50' x 50'. The contaminated material has been scrapped up and disposed of at an NMOCD approved facility. Soil sampling will dictate whether further excavation is needed. A work plan will be prepared and submitted.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Kerry Egan</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kerry Egan	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Environmental Compliance Coordinator	Approval Date: 3/8/18	Expiration Date: N/A
E-mail Address: KEgan@lucid-energy.com	Conditions of Approval: <i>See Attached</i>	Attached: <i>ARP-4654</i>
Date: 3/8/2018	Phone: 575 810-6021	

\* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at:  
<http://www.emnrd.state.nm.us/OCD/forms.html>  
Thank you

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/8/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4654 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 4/8/2018 . If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- **Horizontal delineation of soil impacts in each of the four cardinal compass directions.** Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- **Vertical delineation of soil impacts.** Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- **Nominal detection limits for field and laboratory analyses must be provided.**
- **Composite sampling is not generally allowed.**
- **Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted**

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

[jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised April 3, 2017

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Lucid Energy Delaware	Contact Kerry Egan
Address 522 W. Mermod, Ste 704, Carlsbad NM 88220	Telephone No. 575-513-8988
Facility Name Roadrunner Gas Plant	Facility Type Gas Plant

Surface Owner Lucid Energy Delaware	Mineral Owner	API No.
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**LOCATION OF RELEASE**

Unit Letter	Section 32	Township 23S	Range 28E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.26696 Longitude -104.116886 NAD83

**NATURE OF RELEASE**

Type of Release tri-ethylene glycol	Volume of Release 1000 gallons	Volume Recovered none
Source of Release Drain Valve left open on filter case	Date and Hour of Occurrence 3/4/2018 6PM	Date and Hour of Discovery 3/4/2018 7PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Amy Ruth	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
The drain valve on a filter case was opened during filter change out. The valve was not closed prior to putting the filter case back into service. The TEG holding tank filled and overflowed before the valve was identified and closed. In response the pump controlling the level in the tank has been set to automatically turn preventing further overflow.

Describe Area Affected and Cleanup Action Taken.\*  
The TEG affected gravel/soil in an area approximately 50' x 50'. The contaminated material has been scrapped up and disposed of at an NMOCD approved facility. Soil sampling dictated whether further excavation. See submitted closure report.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kerry Egan	Approved by Environmental Specialist:	
Title: Environmental Compliance Coordinator	Approval Date:	Expiration Date:
E-mail Address: KEgan@lucid-energy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/14/2018 Phone: 575-810-6021		

\* Attach Additional Sheets If Necessary

2RP-4654

**APPENDIX B**  
**NMOSE WELLS REPORT**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 01648</a>	C	ED		2	3	29	23S	28E		583667	3571184*	778	65	15	50
<a href="#">C 02037</a>	C	ED		2	3	29	23S	28E		583667	3571184*	778	260		
<a href="#">C 00108</a>	CUB	ED		1	1	4	29	23S	28E	583974	3571285*	956	152	10	142
<a href="#">C 04037 POD1</a>	C	ED		4	3	2	31	23S	28E	582576	3569872	1145	99	60	39
<a href="#">C 03706 POD1</a>	C	ED		3	4	4	22	21S	27E	584939	3569812	1477	200		
<a href="#">C 03831 POD1</a>	C	ED		4	3	1	33	23S	28E	584939	3569812	1477	300	52	248
<a href="#">C 04085 POD1</a>	CUB	ED		1	4	1	31	23S	28E	582039	3570027	1594	250	200	50
<a href="#">C 00481</a>	C	ED		3	2	1	33	23S	28E	585182	3570283*	1599	225	190	35
<a href="#">C 00519</a>	C	ED		2	1	1	28	23S	28E	584970	3572100*	2183	250		
<a href="#">C 01731</a>	C	ED		4	2	05	24S	28E		584483	3568367*	2230	80	30	50
<a href="#">C 00539</a>	C	ED		3	3	3	21	23S	28E	584767	3572308*	2234	28	6	22
<a href="#">C 03542 POD2</a>	CUB	ED		2	4	4	20	23S	28E	584620	3572497	2328	30		
<a href="#">C 03542 POD1</a>	CUB	ED		2	4	4	20	23S	28E	584615	3572530	2356	22	16	6
<a href="#">C 00650</a>	C	ED		1	3	3	21	23S	28E	584767	3572508*	2407	32	12	20
<a href="#">C 01472</a>	CUB	ED		2	3	2	28	23S	28E	585730	3571652	2476	162	10	152
<a href="#">C 00577</a>	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	35	10	25
<a href="#">C 00578</a>	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	28	18	10
<a href="#">C 00643</a>	C	ED		3	1	3	21	23S	28E	584764	3572714*	2587	76	10	66
<a href="#">C 00911 POD2</a>	C	ED		1	2	4	20	23S	28E	584359	3572911*	2617	69	34	35
<a href="#">C 00911 POD3</a>	C	ED		1	2	4	20	23S	28E	584359	3572911*	2617	218	60	158
<a href="#">C 01938</a>	C	ED		2	4	28	23S	28E		586085	3571205*	2620	80	3	77
<a href="#">C 00312</a>	O	ED		3	3	1	20	23S	28E	583140	3573106*	2733	230	70	160
<a href="#">C 03732 POD1</a>	C	ED		1	3	3	27	23S	28E	586321	3570929	2782	171	10	161
<a href="#">C 01477</a>	CUB	ED		1	3	3	19	23S	28E	581532	3572484*	2920	127	10	117
<a href="#">C 02306</a>	C	ED		3	2	04	24S	28E		585690	3568382*	2920	75	25	50
<a href="#">C 00010 CLW191724</a>	O	ED		2	3	2	25	23S	27E	580926	3571666*	2943	259		

\*UTM location was derived from PLSS - see Help

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 00544</a>	C	ED	3	3	1	21	23S	28E	584762	3573120*		2953	27		
<a href="#">C 02848</a>	CUB	ED	3	3	1	21	23S	28E	584762	3573120*		2953	130		
<a href="#">C 01244</a>	C	ED	4	4	06	24S	28E	582860	3567543*		2957	109	70	39	
<a href="#">C 00010</a>	CUB	ED	1	2	2	25	23S	27E	581129	3572075*		2969	250	103	147
<a href="#">C 00010 CLW191759</a>	O	ED	1	2	2	25	23S	27E	581129	3572075*		2969	259		
<a href="#">C 00010 ENLGD</a>	CUB	ED	1	2	2	25	23S	27E	581129	3572075*		2969	259		

Average Depth to Water: **44 feet**

Minimum Depth: **3 feet**

Maximum Depth: **200 feet**

**Record Count:** 32

**UTM NAD83 Radius Search (in meters):**

**Easting (X):** 583587.63

**Northing (Y):** 3570409.58

**Radius:** 3000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

APPENDIX C  
LABORATORY ANALYTICAL  
REPORTS



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 26, 2018

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: Road Runner TEG

OrderNo.: 1803726

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/13/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L1-0.5

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 12:22:00 PM

**Lab ID:** 1803726-001

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1400	75		mg/Kg	50	3/21/2018 5:24:07 AM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	780	9.6		mg/Kg	1	3/15/2018 7:40:01 PM	37032
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/15/2018 7:40:01 PM	37032
Surr: DNOP	109	70-130		%Rec	1	3/15/2018 7:40:01 PM	37032
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Surr: BFB	94.0	15-316		%Rec	1	3/15/2018 9:52:04 AM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Benzene	ND	0.025		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Toluene	ND	0.050		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Ethylbenzene	ND	0.050		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Xylenes, Total	ND	0.10		mg/Kg	1	3/15/2018 9:52:04 AM	37021
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	3/15/2018 9:52:04 AM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L1-1

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 12:30:00 PM

**Lab ID:** 1803726-002

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	500	30		mg/Kg	20	3/17/2018 7:10:46 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	150	9.6		mg/Kg	1	3/22/2018 3:49:29 PM	37160
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/22/2018 3:49:29 PM	37160
Surr: DNOP	98.4	70-130		%Rec	1	3/22/2018 3:49:29 PM	37160
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Surr: BFB	89.4	15-316		%Rec	1	3/15/2018 11:02:12 AM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Benzene	ND	0.023		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Toluene	ND	0.047		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Ethylbenzene	ND	0.047		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Xylenes, Total	ND	0.094		mg/Kg	1	3/15/2018 11:02:12 AM	37021
Surr: 4-Bromofluorobenzene	84.3	80-120		%Rec	1	3/15/2018 11:02:12 AM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2-0.5

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 12:39:00 PM

**Lab ID:** 1803726-003

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	110	30		mg/Kg	20	3/17/2018 7:48:00 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	5600	89		mg/Kg	10	3/23/2018 11:45:58 PM	37160
Motor Oil Range Organics (MRO)	ND	440		mg/Kg	10	3/23/2018 11:45:58 PM	37160
Surr: DNOP	0	70-130	S	%Rec	10	3/23/2018 11:45:58 PM	37160
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Surr: BFB	89.4	15-316		%Rec	1	3/15/2018 12:12:51 PM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.099		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Benzene	ND	0.025		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Toluene	0.077	0.050		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Ethylbenzene	ND	0.050		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Xylenes, Total	ND	0.099		mg/Kg	1	3/15/2018 12:12:51 PM	37021
Surr: 4-Bromofluorobenzene	85.7	80-120		%Rec	1	3/15/2018 12:12:51 PM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2-1

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 12:45:00 PM

**Lab ID:** 1803726-004

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	110	30		mg/Kg	20	3/17/2018 8:00:25 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	3/22/2018 4:38:22 PM	37160
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/22/2018 4:38:22 PM	37160
Surr: DNOP	99.0	70-130		%Rec	1	3/22/2018 4:38:22 PM	37160
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Surr: BFB	89.0	15-316		%Rec	1	3/15/2018 12:36:16 PM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Benzene	ND	0.024		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Toluene	ND	0.048		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Ethylbenzene	ND	0.048		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Xylenes, Total	ND	0.096		mg/Kg	1	3/15/2018 12:36:16 PM	37021
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	1	3/15/2018 12:36:16 PM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-0.5

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 12:58:00 PM

**Lab ID:** 1803726-005

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	92	30		mg/Kg	20	3/17/2018 8:12:50 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	820	10		mg/Kg	1	3/22/2018 5:02:51 PM	37160
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/22/2018 5:02:51 PM	37160
Surr: DNOP	97.7	70-130		%Rec	1	3/22/2018 5:02:51 PM	37160
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Surr: BFB	90.8	15-316		%Rec	1	3/15/2018 12:59:33 PM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Benzene	ND	0.024		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Toluene	ND	0.049		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Ethylbenzene	ND	0.049		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Xylenes, Total	ND	0.097		mg/Kg	1	3/15/2018 12:59:33 PM	37021
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	3/15/2018 12:59:33 PM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-1

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 1:00:00 PM

**Lab ID:** 1803726-006

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	120	30		mg/Kg	20	3/17/2018 8:50:05 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	230	9.2		mg/Kg	1	3/22/2018 5:27:24 PM	37160
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/22/2018 5:27:24 PM	37160
Surr: DNOP	92.5	70-130		%Rec	1	3/22/2018 5:27:24 PM	37160
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Surr: BFB	89.3	15-316		%Rec	1	3/15/2018 1:22:49 PM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Benzene	ND	0.023		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Toluene	ND	0.046		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Ethylbenzene	ND	0.046		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Xylenes, Total	ND	0.093		mg/Kg	1	3/15/2018 1:22:49 PM	37021
Surr: 4-Bromofluorobenzene	84.9	80-120		%Rec	1	3/15/2018 1:22:49 PM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1803726

Date Reported: 3/26/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SP

**Project:** Road Runner TEG

**Collection Date:** 3/8/2018 1:05:00 PM

**Lab ID:** 1803726-007

**Matrix:** SOIL

**Received Date:** 3/13/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	300	30		mg/Kg	20	3/17/2018 9:02:29 PM	37082
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	16000	980		mg/Kg	100	3/16/2018 1:59:33 PM	37032
Motor Oil Range Organics (MRO)	ND	4900		mg/Kg	100	3/16/2018 1:59:33 PM	37032
Surr: DNOP	0	70-130	S	%Rec	100	3/16/2018 1:59:33 PM	37032
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Surr: BFB	88.6	15-316		%Rec	1	3/15/2018 1:46:04 PM	37021
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Benzene	0.040	0.024		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Toluene	0.26	0.047		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Ethylbenzene	ND	0.047		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Xylenes, Total	0.14	0.095		mg/Kg	1	3/15/2018 1:46:04 PM	37021
Surr: 4-Bromofluorobenzene	83.4	80-120		%Rec	1	3/15/2018 1:46:04 PM	37021

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID <b>MB-37082</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37082</b>		RunNo: <b>49884</b>							
Prep Date: <b>3/17/2018</b>	Analysis Date: <b>3/17/2018</b>		SeqNo: <b>1614578</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-37082</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37082</b>		RunNo: <b>49884</b>							
Prep Date: <b>3/17/2018</b>	Analysis Date: <b>3/17/2018</b>		SeqNo: <b>1614579</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID	<b>1803726-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>L1-0.5</b>	Batch ID:	<b>37032</b>	RunNo:	<b>49816</b>					
Prep Date:	<b>3/14/2018</b>	Analysis Date:	<b>3/15/2018</b>	SeqNo:	<b>1612817</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	9.7	48.26	776.8	253	55.8	125			S
Surr: DNOP	4.9		4.826		102	70	130			

Sample ID	<b>1803726-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>L1-0.5</b>	Batch ID:	<b>37032</b>	RunNo:	<b>49816</b>					
Prep Date:	<b>3/14/2018</b>	Analysis Date:	<b>3/15/2018</b>	SeqNo:	<b>1612818</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	860	10	49.80	776.8	164	55.8	125	4.64	20	S
Surr: DNOP	5.2		4.980		104	70	130	0	0	

Sample ID	<b>LCS-37032</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37032</b>	RunNo:	<b>49816</b>					
Prep Date:	<b>3/14/2018</b>	Analysis Date:	<b>3/15/2018</b>	SeqNo:	<b>1612829</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	70	130			
Surr: DNOP	5.4		5.000		107	70	130			

Sample ID	<b>MB-37032</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>37032</b>	RunNo:	<b>49816</b>					
Prep Date:	<b>3/14/2018</b>	Analysis Date:	<b>3/15/2018</b>	SeqNo:	<b>1612830</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	<b>MB-37128</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>37128</b>	RunNo:	<b>49989</b>					
Prep Date:	<b>3/20/2018</b>	Analysis Date:	<b>3/22/2018</b>	SeqNo:	<b>1618593</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.9	70	130			

Sample ID	<b>LCS-37128</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37128</b>	RunNo:	<b>49989</b>					
Prep Date:	<b>3/20/2018</b>	Analysis Date:	<b>3/22/2018</b>	SeqNo:	<b>1618637</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID	<b>LCS-37128</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37128</b>	RunNo:	<b>49989</b>					
Prep Date:	<b>3/20/2018</b>	Analysis Date:	<b>3/22/2018</b>	SeqNo:	<b>1618637</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.8	70	130			

Sample ID	<b>LCS-37160</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37160</b>	RunNo:	<b>49989</b>					
Prep Date:	<b>3/21/2018</b>	Analysis Date:	<b>3/22/2018</b>	SeqNo:	<b>1618801</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.3	70	130			
Surr: DNOP	4.2		5.000		84.7	70	130			

Sample ID	<b>MB-37160</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>37160</b>	RunNo:	<b>49989</b>					
Prep Date:	<b>3/21/2018</b>	Analysis Date:	<b>3/22/2018</b>	SeqNo:	<b>1618802</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.1	70	130			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID <b>MB-37021</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612571</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	15	316			

Sample ID <b>LCS-37021</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612572</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	75.9	131			
Surr: BFB	1100		1000		108	15	316			

Sample ID <b>1803726-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>L1-1</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612575</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.39	0	124	77.8	128			
Surr: BFB	1000		975.6		105	15	316			

Sample ID <b>1803726-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>L1-1</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612576</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.8	23.79	0	122	77.8	128	4.13	20	
Surr: BFB	990		951.5		104	15	316	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID <b>MB-37021</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612610</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		85.2	80	120			

Sample ID <b>LCS-37021</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612611</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.10	1.000	0	93.4	70.1	121			
Benzene	1.0	0.025	1.000	0	100	77.3	128			
Toluene	0.99	0.050	1.000	0	99.5	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	97.2	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	99.9	81.6	129			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	80	120			

Sample ID <b>1803726-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>L1-0.5</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612615</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.98	0.099	0.9901	0	99.0	56.9	130			
Benzene	1.1	0.025	0.9901	0	108	68.5	133			
Toluene	1.1	0.050	0.9901	0.01089	107	75	130			
Ethylbenzene	1.1	0.050	0.9901	0	108	79.4	128			
Xylenes, Total	3.3	0.099	2.970	0.03067	110	77.3	131			
Surr: 4-Bromofluorobenzene	0.88		0.9901		89.1	80	120			

Sample ID <b>1803726-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>L1-0.5</b>	Batch ID: <b>37021</b>		RunNo: <b>49818</b>							
Prep Date: <b>3/14/2018</b>	Analysis Date: <b>3/15/2018</b>		SeqNo: <b>1612620</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.099	0.9852	0	94.8	56.9	130	4.79	20	
Benzene	1.0	0.025	0.9852	0	102	68.5	133	5.88	20	
Toluene	1.0	0.049	0.9852	0.01089	101	75	130	6.40	20	
Ethylbenzene	1.0	0.049	0.9852	0	102	79.4	128	6.37	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1803726

26-Mar-18

**Client:** Souder, Miller & Associates

**Project:** Road Runner TEG

Sample ID	1803726-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	L1-0.5	Batch ID:	37021	RunNo:	49818					
Prep Date:	3/14/2018	Analysis Date:	3/15/2018	SeqNo:	1612620	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.1	0.099	2.956	0.03067	103	77.3	131	6.82	20	
Surr: 4-Bromofluorobenzene	0.87		0.9852		88.3	80	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1803726

RcptNo: 1

Received By: Mandy Woods

3/13/2018 9:40:00 AM

*Mandy Woods*

Completed By: Dennis Suazo

3/13/2018 4:24:20 PM

*Dennis Suazo*

Reviewed By: *SPR 03/14/18*

*Labeled By DDS*

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: _____	Date: _____
By Whom: _____	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding: _____	
Client Instructions: _____	

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Not Present			

**Chain-of-Custody Record**

Client: SMA - C-band

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard  Level 4 (Full Validation)

Accreditation

NELAP  Other

EDD (Type)

Project Manager:

Austin Weyant

Sampler: Heather Gatterson

On Ice:  Yes  No

Sample Temperature: 5.8

Container Type and #

402

Preservative Type

HEAL No 1803726

Date

3/8/18

Time

12:22

Matrix

Soil

Sample Request ID

L1-0.5

L1-1

L2-0.5

L2-1

L3-0.5

L3-1

SG

Date:

3/12/18

Time:

1400

Relinquished by:

[Signature]

Relinquished by:

[Signature]

Received by:

[Signature]

Date:

3/12/18

Time:

1400

Received by:

[Signature]

Date:

3/13/18

Time:

0940

Turn-Around Time: 5 days turn

Standard  Rush

Project Name:

Road Runner TEG

Project #:



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
X	X	X					X				
X	X	X					X				
X	X	X					X				
X	X	X					X				
X	X	X					X				
X	X	X					X				
X	X	X					X				

Remarks:

Word  
Add 8015 6/10/m to -2 - 6.  
of 3/20 per Heather

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 03, 2018

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: Roadrunner TEG

OrderNo.: 1804D28

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804D28

Date Reported: 5/3/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L1-1.5'

**Project:** Roadrunner TEG

**Collection Date:** 4/24/2018 9:57:00 AM

**Lab ID:** 1804D28-001

**Matrix:** SOIL

**Received Date:** 4/26/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	310	30		mg/Kg	20	5/2/2018 1:05:35 PM	37900
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	36	9.6		mg/Kg	1	4/30/2018 5:30:03 PM	37838
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2018 5:30:03 PM	37838
Surr: DNOP	100	70-130		%Rec	1	4/30/2018 5:30:03 PM	37838
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2018 1:06:37 AM	37823
Surr: BFB	92.1	15-316		%Rec	1	4/28/2018 1:06:37 AM	37823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1804D28

Date Reported: 5/3/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-1.5'

**Project:** Roadrunner TEG

**Collection Date:** 4/24/2018 10:07:00 AM

**Lab ID:** 1804D28-002

**Matrix:** SOIL

**Received Date:** 4/26/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	700	30		mg/Kg	20	5/2/2018 1:42:48 PM	37900
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	200	9.2		mg/Kg	1	4/30/2018 5:52:12 PM	37838
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/30/2018 5:52:12 PM	37838
Surr: DNOP	93.1	70-130		%Rec	1	4/30/2018 5:52:12 PM	37838
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2018 1:29:49 AM	37823
Surr: BFB	91.7	15-316		%Rec	1	4/28/2018 1:29:49 AM	37823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID	<b>MB-37900</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>37900</b>	RunNo:	<b>50986</b>					
Prep Date:	<b>5/2/2018</b>	Analysis Date:	<b>5/2/2018</b>	SeqNo:	<b>1656322</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-37900</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37900</b>	RunNo:	<b>50986</b>					
Prep Date:	<b>5/2/2018</b>	Analysis Date:	<b>5/2/2018</b>	SeqNo:	<b>1656323</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID <b>LCS-37838</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37838</b>		RunNo: <b>50909</b>							
Prep Date: <b>4/27/2018</b>	Analysis Date: <b>4/30/2018</b>		SeqNo: <b>1653303</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	70	130			
Surr: DNOP	4.8		5.000		96.3	70	130			

Sample ID <b>MB-37838</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37838</b>		RunNo: <b>50909</b>							
Prep Date: <b>4/27/2018</b>	Analysis Date: <b>4/30/2018</b>		SeqNo: <b>1653304</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID <b>LCS-37865</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37865</b>		RunNo: <b>50940</b>							
Prep Date: <b>4/30/2018</b>	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1654117</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.0	70	130			

Sample ID <b>MB-37865</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37865</b>		RunNo: <b>50940</b>							
Prep Date: <b>4/30/2018</b>	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1654118</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		82.1	70	130			

Sample ID <b>LCS-37864</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37864</b>		RunNo: <b>50939</b>							
Prep Date: <b>4/30/2018</b>	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1654570</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.3	70	130			

Sample ID <b>MB-37864</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37864</b>		RunNo: <b>50939</b>							
Prep Date: <b>4/30/2018</b>	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1654571</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID	<b>LCS-37898</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>37898</b>	RunNo:	<b>50978</b>					
Prep Date:	<b>5/2/2018</b>	Analysis Date:	<b>5/2/2018</b>	SeqNo:	<b>1655172</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.8	70	130			

Sample ID	<b>MB-37898</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>37898</b>	RunNo:	<b>50978</b>					
Prep Date:	<b>5/2/2018</b>	Analysis Date:	<b>5/2/2018</b>	SeqNo:	<b>1655173</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.0	70	130			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804D28

03-May-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID <b>MB-37823</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>37823</b>		RunNo: <b>50883</b>							
Prep Date: <b>4/26/2018</b>	Analysis Date: <b>4/27/2018</b>		SeqNo: <b>1652266</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		92.9	15	316			

Sample ID <b>LCS-37823</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>37823</b>		RunNo: <b>50883</b>							
Prep Date: <b>4/26/2018</b>	Analysis Date: <b>4/27/2018</b>		SeqNo: <b>1652267</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.4	75.9	131			
Surr: BFB	1000		1000		99.6	15	316			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Sample Log-In Check List**

Client Name: SMA-CARLSBAD

Work Order Number: 1804D28

RcptNo: 1

Received By: Erin Melendrez

4/26/2018 9:15:00 AM

*EM*

Completed By: Ashley Gallegos

4/26/2018 11:13:54 AM

*AG*

Reviewed By: *MW 4/26/18*

*labeled by: AG 04/26/18*

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: *8*  
 (<2 or >12 unless noted)  
 Adjusted?   
 Checked by: *AG 04/26/18*

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.8	Good	Yes			





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 06, 2018

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: Roadrunner TEG

OrderNo.: 1805E19

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/25/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1805E19

Date Reported: 6/6/2018

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3-1.75'

**Project:** Roadrunner TEG

**Collection Date:** 5/22/2018 10:10:00 AM

**Lab ID:** 1805E19-001

**Matrix:** SOIL

**Received Date:** 5/25/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	99	30		mg/Kg	20	6/1/2018 12:56:28 PM	38440
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/31/2018 7:31:59 AM	38349
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/31/2018 7:31:59 AM	38349
Surr: DNOP	97.7	70-130		%Rec	1	5/31/2018 7:31:59 AM	38349
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2018 8:04:15 PM	38366
Surr: BFB	91.3	15-316		%Rec	1	5/30/2018 8:04:15 PM	38366

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1805E19

06-Jun-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID <b>MB-38440</b>	SampType: <b>mbk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>38440</b>		RunNo: <b>51683</b>							
Prep Date: <b>6/1/2018</b>	Analysis Date: <b>6/1/2018</b>		SeqNo: <b>1686268</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-38440</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>38440</b>		RunNo: <b>51683</b>							
Prep Date: <b>6/1/2018</b>	Analysis Date: <b>6/1/2018</b>		SeqNo: <b>1686269</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1805E19

06-Jun-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID <b>MB-38349</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>38349</b>		RunNo: <b>51598</b>							
Prep Date: <b>5/29/2018</b>	Analysis Date: <b>5/30/2018</b>		SeqNo: <b>1683772</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.7	70	130			

Sample ID <b>LCS-38349</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>38349</b>		RunNo: <b>51598</b>							
Prep Date: <b>5/29/2018</b>	Analysis Date: <b>5/31/2018</b>		SeqNo: <b>1683773</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	70	130			
Surr: DNOP	4.4		5.000		88.0	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1805E19

06-Jun-18

**Client:** Souder, Miller & Associates

**Project:** Roadrunner TEG

Sample ID <b>MB-38366</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>38366</b>		RunNo: <b>51603</b>							
Prep Date: <b>5/29/2018</b>	Analysis Date: <b>5/30/2018</b>		SeqNo: <b>1682799</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		92.9	15	316			

Sample ID <b>LCS-38366</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>38366</b>		RunNo: <b>51603</b>							
Prep Date: <b>5/29/2018</b>	Analysis Date: <b>5/30/2018</b>		SeqNo: <b>1682800</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			
Surr: BFB	1100		1000		106	15	316			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Sample Log-In Check List**

Client Name: SMA-CARLSBAD

Work Order Number: 1805E19

ReptNo: 1

Received By: Isaiah Ortiz 5/25/2018 9:15:00 AM

*IO*

Completed By: Erin Melendrez 5/25/2018 10:00:05 AM

*EM*

Reviewed By:

*JRB*

5/25/18

Labeled By: *JRB 05/25/18*

Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? (If no, notify customer for authorization) Yes  No

# of preserved bottles checked for pH  
 (<2 or >12 unless noted)  
 Adjusted?  
 Checked by *JRB 05/25/18*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes			

