

## RECEIVED

By OCD District 1 at 2:13 pm, Sep 17, 2015

# **APPROVED**

By OCD District 1 at 2:13 pm, Sep 17, 2015

September 14, 2015

#5B24203-BG1

NMOCD District I 1625 N. French Drive Hobbs, New Mexico 88240

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT 1RP-3804 ROY BATTY FEDERAL COM NO. 003H, LEA COUNTY, NEW MEXICO

Dear Ms. Jones:

On behalf of Trade Star Energy, Souder Miller & Associates is pleased to submit the attached Final Closure Report of the remediation of the release site located on Roy Batty Federal Com No. 003H in Lea County, New Mexico. The purpose of the Final Report is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the closure of the release that occurred on Bureau of Land Management property on July 24, 2015.

Souder, Miller & Associates (SMA) responded at the request of Trade Star Energy and COG Operating to assess and delineate the release of production fluids associated with the Roy Batty Federal Com No. 003H well location. The release was initially reported to NMOCD by COG Operating on August 7, 2015, 2015, and was a result of a human error. The table below summarizes information regarding the release. Results of the assessment, delineation, and remedial activities follow in the attached closure report.

Table 1: Release information and Site Ranking								
Name		Roy Batty Federal Com #3H						
	Incident Number	Section Township Rar						
Location	1RP- 3804	300- 025- 41333	SW/NE (Unit O)	Section 11	T 24S, R 33E NMPM			
Estimated Date of Release	7/24/15	-	-	-				
Date Reported to NMOCD	8/7/15							
Reported by	Amanda	Trujillo						
Land Owner	Bureau of	f Land Man	agement (I	BLM)				
Reported To	NM Oil Co	onservation	n Division (I	NMOCD)				
Source of Release	Human Ei	rror						
Released Material	Oil							
Released Volume	18 bbls Oil							
Recovered Volume	0 bbls Oil							
Net Release	18 bbl Oil							
Nearest Waterway	Pecos Riv	er is over 2	5 miles we	st of the lo	cation.			



Depth to Groundwater	Estimated to be 110 feet
Nearest Domestic Water Source	Greater than 1000 feet
NMOCD Ranking	0
SMA Response Dates	8/3/2015

Attached is a copy of the C-141 final, located in Appendix B. For questions or comments pertaining to the release or the attached Closure Report please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES

Austin Weyant Project Scientist Reviewed by:

Cynthia Gray, CHMM Senior Scientist

# FINAL CLOSURE REPORT FOR INCIDENT 1RP-3804

# **COG OPERATING LLC**

ROY BATTY FEDERAL COM No. 003H API# 30-025-41333 SECTION 11, T24S R33E, NMPM LEA COUNTY, NM



Prepared for: Trade Star Energy 5408 Thomason Carlsbad, NM 88220 432-755-4103

Prepared by: Souder, Miller & Associates 201 S. Halagueno Carlsbad, NM 88221 575-689-7040

September 14, 2015 SMA Reference 5B24203 BG1

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#### 1.0 Introduction

On behalf of Trade Star Energy and COG Operating LLC (COG), SMA has prepared this report that describes the assessment, initial delineation, and mitigation of a release associated with Roy Batty Federal Com No. 003H release site. The site is located in Section 11, T 24S, R 33E NMPM, Lea County, New Mexico, on land owned by the Bureau of Land Management (BLM). Figure 1 illustrates the vicinity and location of the site

#### 2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 25 miles east of the Pecos River, in an area owned by Bureau of Land Management (BLM) with an elevation of approximately 3,600 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be approximately 110 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No well is located within a 1000 foot radius of the site. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned an NMOCD ranking of 0 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 5000 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates the site ranking rationale.

#### 3.0 Assessment and Initial Results

On August 3, 2015, SMA field personnel assessed the release area onsite with a mobile chlorides titration kit and Photo Ionization Detector (PID). The affected area was found to be approximately 70 feet long and 40 feet wide. The spill occurred on the well pad. Sampling of the site occurred on August 3, 2015 with samples taken to depths of three feet bgs. All samples indicated that the soils at the surface are at background levels of chlorides. Sample locations and the excavation area are noted on Figure 2 Site Details and Sample Location Map. Field screening results are noted in Table 2 in the appendices. All samples were collected and processed according to NMOCD soil sampling procedures. Samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, TPH (DRO and GRO) by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

#### 4.0 Soil Remediation Summary

Initial excavation activities during the spill response removed the contaminated soil from the area of the incident. Initial action included scraping of 4 to 15 inches bgs within the spill area on the pad. SMA took closure samples using a discrete sampling method on August 3, 2015 as shown in Table 3 and Figure 2. Samples were taken to ensure that contaminated soils had been removed. Excavation was conducted to depths of 4 to 15 inches bgs in the spill area to remove the soils affected. Contaminated soils were removed and replaced with clean backfill material to bring the excavated area to surface grade.

#### **5.0** Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern for a site ranking of 0: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 5000 ppm TPH. The release consisted of oil with no evidence of produced water impacts found during the initial assessment and delineation.

Laboratory analytical results for all final closure samples collected were below NMOCD action levels for Benzene, BTEX, and TPH. No further remedial activities are recommended.

To confirm that the contaminated soil was removed, all closure samples were taken and analyzed as discrete samples.

Soil contaminant concentrations are illustrated in Figure 2. A summary of laboratory analytical results for closure confirmation is included in Table 2. Laboratory reports are included in Appendix A.

#### 6.0 Closure and Limitations

The scope of our services consisted of the performance of a regulatory liaison, collection of closure confirmation samples 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 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by: Reviewed by:

SOUDER. MILLER & ASSOCIATES

Austin Weyant Cynthia Gray, CHMM Project Scientist Senior Scientist

#### Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

#### Tables:

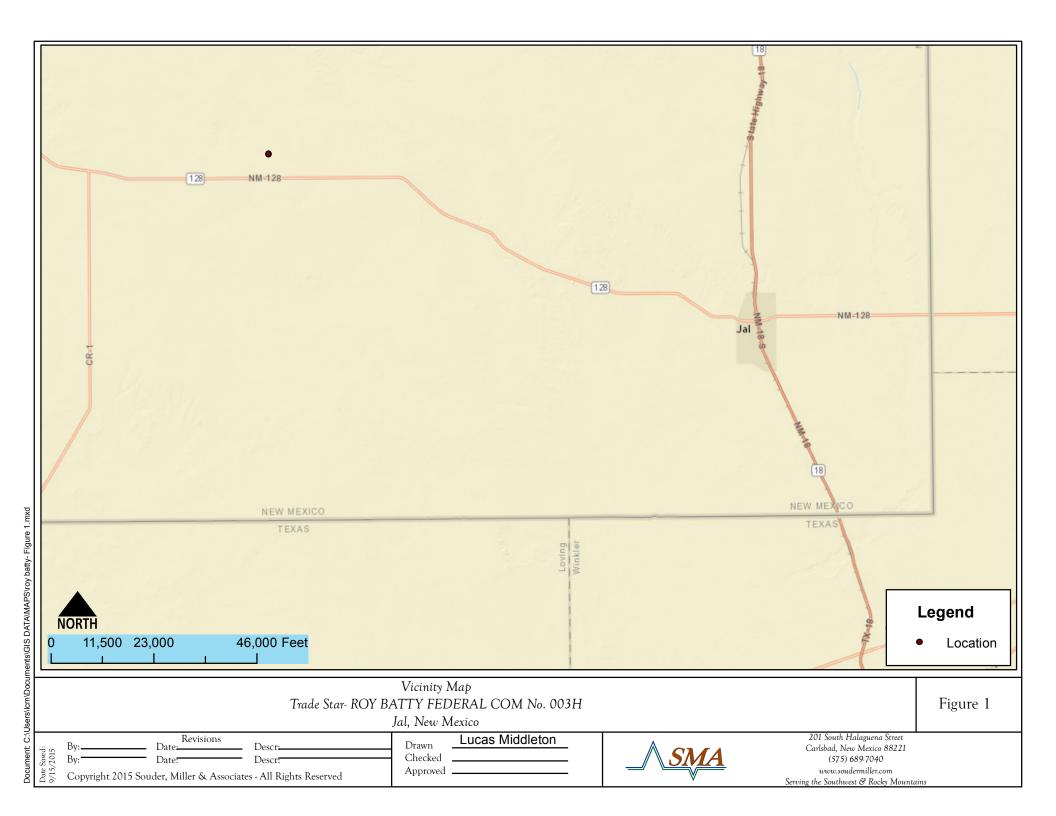
Table 1: Release Information and Site Ranking Table 2: Summary of Laboratory Analyses

#### **Appendices:**

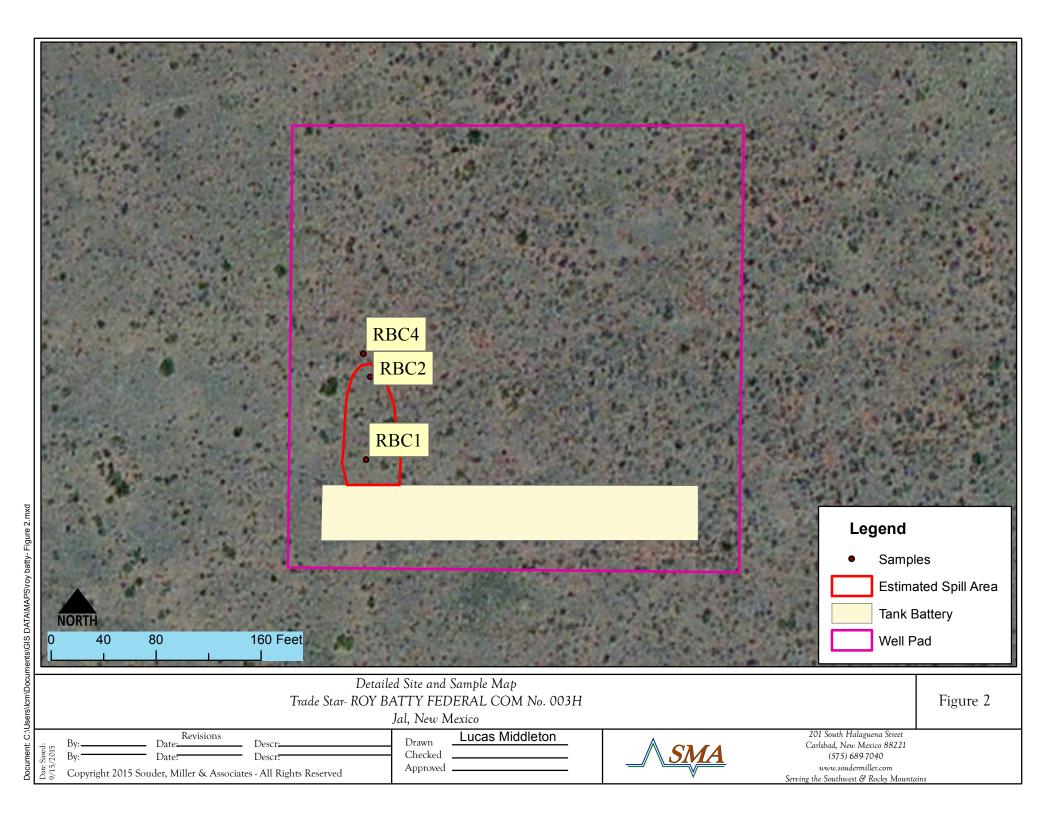
Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final Appendix C: Photo Gallery

# FIGURE 1 VICINITY MAP



# FIGURE 2 DETAILED SITE AND SAMPLE MAP



# TABLE 1 RELEASE INFORMATION AND SITE RANKING

Table 1: Release information and Site Ranking								
Name		Roy Battery Federal Com #3H						
Location	Incident Number	Section, Township, Range						
Location	1RP-3804	300-025- 41333	SW/NE (Unit O)	Section 11	T 24S, R 33E NMPM			
Estimated Date of Release	7/24/15							
Date Reported to NMOCD	8/7/15							
Reported by	Amanda Tr	ujillo						
Land Owner	Bureau of I	and Manag	ement (BLI	<b>小</b> )				
Reported To	NM Oil Cor	nservation D	ivision (NN	10CD)				
Source of Release	Human Err	or						
Released Material	Oil							
Released Volume	18 bbls Oil							
Recovered Volume	0 bbls Oil							
Net Release	18 bbl Oil							
Nearest Waterway	Pecos Rive	r is over 25	miles west	of the locati	on.			
Depth to Groundwater	Estimated	Estimated to be 110 feet						
Nearest Domestic Water Source	Greater tha	an 1000 fee	t					
NMOCD Ranking	0							
SMA Response Dates	8/5/2015							

# TABLE 2 SUMMARY OF LABORATORY ANALYSES

**Table 2: Summary of Laboratory Analyses** 

Analytical Report- 1508238	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	CI- mg/Kg
1508238-001	RBC1	8/3/2015	1'	BDL	BDL	14	2700	410
1508238-002	RBC2	8/3/2015	2'	BDL	BDL	BDL	310	170
1508238-004	RBC4	8/3/2015	3'	BDL	BDL	BDL	BDL	160

# APPENDIX A 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

August 13, 2015

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

FAX

RE: Roy Bath OrderNo.: 1508238

#### Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/6/2015 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 qualifers 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,

Andy Freeman

Laboratory Manager

Indest

4901 Hawkins NE

Albuquerque, NM 87109

# **Analytical Report**

# Lab Order **1508238**Date Reported: **8/13/2015**

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Souder, Miller & Associates Client Sample ID: RBC 1

 Project:
 Roy Bath
 Collection Date: 8/3/2015 9:00:00 AM

 Lab ID:
 1508238-001
 Matrix: SOIL
 Received Date: 8/6/2015 10:05:00 AM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	410	30		mg/Kg	20	8/11/2015 7:38:14 PM	20732
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S				Analyst	: JME
Diesel Range Organics (DRO)	2700	97		mg/Kg	10	8/11/2015 4:13:08 PM	20689
Surr: DNOP	0	57.9-140	S	%REC	10	8/11/2015 4:13:08 PM	20689
EPA METHOD 8015D: GASOLINE RAN	IGE					Analyst	: RAA
Gasoline Range Organics (GRO)	14	4.9		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Surr: BFB	168	75.4-113	S	%REC	1	8/10/2015 4:18:24 PM	20670
EPA METHOD 8021B: VOLATILES						Analyst	: RAA
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Benzene	ND	0.049		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Toluene	ND	0.049		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Ethylbenzene	0.058	0.049		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Xylenes, Total	0.37	0.098		mg/Kg	1	8/10/2015 4:18:24 PM	20670
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	8/10/2015 4:18:24 PM	20670

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

#### 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
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit

# **Analytical Report**

# Lab Order **1508238**Date Reported: **8/13/2015**

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Souder, Miller & Associates Client Sample ID: RBC 2

 Project:
 Roy Bath
 Collection Date: 8/3/2015 9:00:00 AM

 Lab ID:
 1508238-002
 Matrix: SOIL
 Received Date: 8/6/2015 10:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analysi	:: LGT
Chloride	170	30	mg/Kg	20	8/11/2015 7:50:39 PM	20732
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: JME
Diesel Range Organics (DRO)	310	10	mg/Kg	1	8/11/2015 4:40:13 PM	20689
Surr: DNOP	122	57.9-140	%REC	1	8/11/2015 4:40:13 PM	20689
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	:: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Surr: BFB	112	75.4-113	%REC	1	8/10/2015 9:41:04 PM	20670
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Methyl tert-butyl ether (MTBE)	ND	0.098	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Benzene	ND	0.049	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Toluene	ND	0.049	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Ethylbenzene	ND	0.049	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Xylenes, Total	ND	0.098	mg/Kg	1	8/10/2015 9:41:04 PM	20670
Surr: 4-Bromofluorobenzene	98.7	80-120	%REC	1	8/10/2015 9:41:04 PM	20670

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

#### 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
- R RPD outside accepted recovery limits
- 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 Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit

# **Analytical Report**

# Lab Order **1508238**Date Reported: **8/13/2015**

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: RBC 4

 Project:
 Roy Bath
 Collection Date: 8/3/2015 9:00:00 AM

 Lab ID:
 1508238-003
 Matrix: SOIL
 Received Date: 8/6/2015 10:05:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analysi	:: LGT
Chloride	160	30	mg/Kg	20	8/11/2015 8:03:04 PM	20732
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S			Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/11/2015 5:07:02 PM	20689
Surr: DNOP	90.2	57.9-140	%REC	1	8/11/2015 5:07:02 PM	20689
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	:: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/10/2015 10:05:52 PM	1 20670
Surr: BFB	92.8	75.4-113	%REC	1	8/10/2015 10:05:52 PM	1 20670
EPA METHOD 8021B: VOLATILES					Analyst	:: RAA
Methyl tert-butyl ether (MTBE)	ND	0.098	mg/Kg	1	8/10/2015 10:05:52 PM	1 20670
Benzene	ND	0.049	mg/Kg	1	8/10/2015 10:05:52 PM	20670
Toluene	ND	0.049	mg/Kg	1	8/10/2015 10:05:52 PM	1 20670
Ethylbenzene	ND	0.049	mg/Kg	1	8/10/2015 10:05:52 PM	20670
Xylenes, Total	ND	0.098	mg/Kg	1	8/10/2015 10:05:52 PM	20670
Surr: 4-Bromofluorobenzene	97.3	80-120	%REC	1	8/10/2015 10:05:52 PM	1 20670

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

#### 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
- R RPD outside accepted recovery limits
- 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 Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508238

13-Aug-15

Client: Souder, Miller & Associates

**Project:** Roy Bath

Sample ID MB-20732 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 20732 RunNo: 28132

Prep Date: 8/11/2015 Analysis Date: 8/11/2015 SeqNo: 847597 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID LCS-20732 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 20732 RunNo: 28132

Prep Date: 8/11/2015 Analysis Date: 8/11/2015 SeqNo: 847598 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 99.5 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
- R RPD outside accepted recovery limits
- 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

Page 4 of 7

# Hall Environmental Analysis Laboratory, Inc.

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WO#: **1508238** 

13-Aug-15

Client: Souder, Miller & Associates

**Project:** Roy Bath

Sample ID MB-20689	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 20689	RunNo: 28093	
Prep Date: 8/10/2015	Analysis Date: 8/12/2015	SeqNo: <b>846969</b>	Units: mg/Kg
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	7.7 10.00	76.6 57.9	140
Sample ID LCS-20689	SampType: <b>LCS</b>	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: <b>20689</b>	RunNo: <b>28093</b>	
			Unite: mar/Mar
Prep Date: 8/10/2015	Analysis Date: 8/12/2015	SeqNo: <b>846970</b>	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	38 10 50.00	0 77.0 57.4	139
Surr: DNOP	3.9 5.000	77.6 57.9	140
Sample ID MB-20735	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 20735	RunNo: 28122	
Prep Date: 8/12/2015	Analysis Date: 8/12/2015	SeqNo: <b>847381</b>	Units: %REC
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: DNOP	11 10.00	113 57.9	140
Sample ID LCS-20735	SampType: <b>LCS</b>	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: <b>20735</b>	RunNo: <b>28122</b>	
Prep Date: 8/12/2015	Analysis Date: <b>8/12/2015</b>	SegNo: <b>847676</b>	Units: %REC
1 16p Date. 0/12/2013	Allalysis Date. 6/12/2013	364NO. <b>847070</b>	Office. /orceo
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual

#### Qualifiers:

Surr: DNOP

- \* 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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

109

57.9

140

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **1508238** 

13-Aug-15

Client: Souder, Miller & Associates

**Project:** Roy Bath

Sample ID MB-20670 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 20670 RunNo: 28068

Prep Date: 8/7/2015 Analysis Date: 8/10/2015 SeqNo: 845747 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 880 1000 87.9 75.4 113

Sample ID LCS-20670 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 20670 RunNo: 28068

Prep Date: 8/7/2015 Analysis Date: 8/10/2015 SeqNo: 845748 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 23
 5.0
 25.00
 0
 93.6
 79.6
 122

 Surr: BFB
 990
 1000
 98.8
 75.4
 113

Sample ID MB-20686 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 20686 RunNo: 28106

Prep Date: 8/10/2015 Analysis Date: 8/11/2015 SeqNo: 846886 Units: %REC

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: BFB 900 1000 89.6 75.4 113

Sample ID LCS-20686 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 20686 RunNo: 28106

Prep Date: 8/10/2015 Analysis Date: 8/11/2015 SeqNo: 846887 Units: %REC

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: BFB 1000 1000 99.7 75.4 113

#### 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
- R RPD outside accepted recovery limits
- 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

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## Hall Environmental Analysis Laboratory, Inc.

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WO#: **1508238** 

13-Aug-15

Client: Souder, Miller & Associates

**Project:** Roy Bath

Sample ID MB-20670	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batch	n ID: <b>20</b>	670	RunNo: 28068						
Prep Date: 8/7/2015	Analysis D	Date: <b>8/</b>	10/2015	5	SeqNo: 8	45787	Units: mg/k	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			
Sample ID LCS-20670	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	n ID: <b>20</b>	670	F	RunNo: 2	8068				
Prep Date: 8/7/2015	Analysis D	Date: 8/	10/2015	9	SeqNo: 8	45788	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	103	69.8	143			
Benzene	1.0	0.050	1.000	0	105	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.0	0.050	1.000	0	101	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			
Sample ID MB-20686	SampT	уре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	h ID: <b>20</b>	686	F	RunNo: 2	8106				
Prep Date: <b>8/10/2015</b>	Analysis D	Date: 8/	11/2015	5	SeqNo: 8	46916	Units: %RE	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Sample ID LCS-20686	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: <b>20</b>	686	R	RunNo: 2	8106				
Prep Date: 8/10/2015	Analysis D	ate: 8	11/2015	S	SeqNo: 8	46917	Units: %RE	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	N 98		1 000		98.0	80	120			

95.5

80

120

1.000

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

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

Page 7 of 7



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

# Sample Log-In Check List

Website: www.hallenvironmental.com RcptNo: 1 Work Order Number: 1508238 Client Name: SMA-CARLSBAD 12 Received by/date:

Logged By: Lindsay Mangin 8/6/2015 10	0:05:00 AM	Juney Houges	
Completed By: Lindsay Mangin 8/6/2015 2:	:12:49 PM	Amely Happy	
Reviewed By: <u>TO</u> 08/07/	15		
Chain of Custody			_
1. Custody seals intact on sample bottles?	Yes 🗔	No 🗌	Not Present 🗹
2. Is Chain of Custody complete?	Yes 🗹	No 🗀	Not Present
3. How was the sample delivered?	<u>UPS</u>		
Log In			
4. Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA 🗆
5. Were all samples received at a temperature of >0° C to	o 6.0°C Yes 🗹	No 🗆	na 🗆
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆	
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗆	
8. Are samples (except VOA and ONG) properly preserved	d? Yes ✓	No 🗆	_
9. Was preservative added to bottles?	Yes	No 🗹	NA 🗆
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials <b></b> ✓
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆 i	for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?
14. Is it clear what analyses were requested?	Yes 🗸	No 🗆	
15. Were all holding times able to be met?  (If no, notify customer for authorization.)	Yes <b>⊻</b>	No 🗆	Checked by:
Special Handling (if applicable)			_
16. Was client notified of all discrepancies with this order?	Yes 🗆	No 🗆	NA 🗹

16. 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:		

17. Additional remarks:

18. Cooler Information

_	Cooler No	Temp ℃	Condition	Seal Intact	Seal No	Seal Date	Signed By
	1	4.6	Good	Yes			

#### Air Bubbles (Y or N) **ANALYSIS LABORATORY** HALL ENVIRONMENTAL 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. 4901 Hawkins NE - Albuquerque, NM 87109 Fax 505-345-4107 (AOV-ima2) 07S8 www.hallenvironmental.com Analysis Request (AOV) 809S8 8081 Pesticides / 8082 PCB's Anions (F(C)/NO<sub>3</sub>,NO<sub>2</sub>,PO<sub>4</sub>,SO<sub>4</sub>) lease Si RCRA 8 Metals Tel. 505-345-3975 (HA9 to AN9) 0158 EDB (Method 504.1) TPH (Method 418.1) (Gas/Diese) 86158 (Gas/Diesel) X Time Remarks: BTEX + MTBE + TPH (Gas only) (1208) s'BMT + 3BTM + X3T8 × × Sample Temperature: ゔゟ゠/, ocf ェザゟ゚゚゚゚゚ 08/06/15 1005 -003 HEAL No. ON [ Austr Weyert □ Rush Preservative Type \X Yes Koy Turn-Around Time: Project Manager: Project Name: 2 Standard Type and # Container Celum Received by: 462 Received by: Project# Sampler: 402 402 On Ice: ☐ Level 4 (Full Validation) lucas.middleton@soudermiller.com Sample Request ID Chain-of-Custody Record ABC H RBC RBC Client: Souder Miller And Associates Carlsbad, NM 88220 201 S. Halagueno 575-689-5351 Relinquished by Relinquished by □ Other 505 Matrix 501 <u>Z</u> 100 200 Mailing Address: Time 8 □ NELAP □ EDD (Type) QA/QC Package: email or Fax#: ime: Time: Accreditation: □ Standard 8-3-15 1375 Phone #: みなる Date Date: Date:

# APPENDIX B FORM C141 FINAL

<u>District I</u> 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**

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

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

Form C-141

Revised August 8, 2011

Release Notification and Corrective Action												
					<b>OPERATOR</b> ☐ Initial Report ☒ F				Final Report			
						Contact: Robert McNeill						
		inois Avenue					No. 432-230-007	77				
Facility Name: Roy Battery Federal Com #3H					]	Facility Typ	e: Battery					
Surface Owner: Federal Mineral Owner:					wner:			API N	o. 30-025-4	1333		
LOCATION OF RELEASE												
Unit Letter	1 0					South Line	Feet from the			Count	ty	
0	11	24S	33E	190	,	South	1887	East		Lea		
<b>Latitude</b> 32.2254181 <b>Longitude</b> -103.5406799												
NATURE OF RELEASE												
Type of Rele Oil	ase:					Volume of 18 bbls oil	Release:	Volume 0 bbls	Volume Recovered:			
Source of Re	lease:						Iour of Occurrenc		Hour of Dis	Scovery	•	
Oil Hauler	icase.					7/24/2015			Date and Hour of Discovery: 7/24/2015 8:30 am			
Was Immedia	ate Notice C	_				If YES, To	Whom?	-				
		Ш	Yes	No Not Re	quired							
By Whom?						Date and Hour:						
Was a Watercourse Reached? ☐ Yes ☒ No					If YES, Volume Impacting the Watercourse.							
If a Watercourse was Impacted, Describe Fully.*												
		em and Remed		n Taken.* n Trade Star fell as	alaam rril	sila laadina h	is touch The tent	ran basan ta mun a	ryan Tha tana	le duissa.	. abovalad	
soil over the		i when an on i	lauler with	1 Trade Star len as	sieep wi	me loading i	ns truck. The tank	ter began to run o	ver. The truc	k drivei	snoveled	
Dagariba Ara	a Affactad	and Cleanup A	Action Tal	*								
Describe Are	a Affecteu		action rak	en.								
	remained or	the pad. Trac	le Star res <sub>j</sub>	ponded quickly an	d dispat	ched a hydro	vac to start initial	clean-up. This si	te was addre	ssed per	NMOCD	
guidelines.												
				is true and compl								
				nd/or file certain re								
				te of a C-141 repor								
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												
		ws and/or regu			•							
		1	//			OIL CONSERVATION DIVISION						

Approved by Environmental Specialist:

Expiration Date:

Attached

Approval Date:

Conditions of Approval:

Phone: 575-748-6940

Title: Senior Environmental Coordinator

E-mail Address: atrujillo@concho.com

Printed Name: Amanda Trujillo

8/9/2015

Signature:

<sup>\*</sup> Attach Additional Sheets If Necessary

# APPENDIX C Photo Gallery





Photo 1: Remediation Area after clean-up Taken on 7/28/15

Photo 1: Remediation Area after clean-up Taken on 7/28/15



Photo 3: Take to show depth of conformation samples Taken on 8/3/15



Photo 4: Take to show depth of conformation samples Taken on 8/3/15