



March 19, 2019

#5E27950-BG3

NMOCD District 2
Mr. Robert Hamlet
811 S. First Street
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the Chicken Fry Federal #1H Release (2RP-5297), Malaga, New Mexico

Dear Mr. Hamlet:

On behalf of Marathon Oil Permian LLC (Marathon), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Chicken Fry Federal #1H site. The site is in Unit A, Section 22, Township 24S, Range 28E, Eddy County, New Mexico, on federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Chicken Fry Fed #1H	Company	Marathon Oil Permian
API Number	30-015-42882	Location	32.20947, -104.067699
Incident Number	2RP-5297		
Estimated Date of Release	2/17/2019	Date Reported to NMOCD	2/17/2019
Land Owner	BLM	Reported To	NMOCD, BLM
Source of Release	Free water knock out		
Released Volume	9.62 bbl	Released Material	Produced Water
Recovered Volume	5 bbl	Net Release	4.62 bbl
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	2/21/2019, 3/6/2019		

1.0 Background

On February 17, 2019, a release was discovered at the Chicken Fry Fed 1H site due to equipment failure. Initial response activities were conducted by Marathon, and included recovering standing fluids, which recovered approximately 5 barrels of fluid. The release occurred within a lined facility, however, staining indicated a breach in the side of the liner. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Chicken Fry Fed 1H is located approximately one mile south of Malaga, New Mexico on Federal (BLM) land at an elevation of approximately 3005 feet above mean sea level (amsl).

Based upon water well data (Appendix B), depth to groundwater in the area is estimated to be 370 feet below grade surface (bgs). There are five known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 3/1/2019). The nearest significant watercourse is an irrigation canal, located approximately 350 feet to the west. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization and Remediation Activities

On February 21, 2019, SMA personnel arrived on site in response to the release associated with Chicken Fry Fed 1H. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter.

A total of three sample locations (L1-L3) were investigated using a hand-auger, to depths up to three feet bgs. A total of nine samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

A liner inspection indicated a defective liner, therefore the liner was removed and replaced. On March 6, 2019, after the liner was removed, SMA returned to the location to sample beneath the liner at the breach point. One sample was location was sampled to a total depth of three feet bgs.

All sample results were below NMOCD Closure Criteria standards for this location. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D. All samples were within the Closure Criteria for this location. SMA recommends no further action at this location.

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing 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 Heather Patterson at 575-200-5343 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES



Heather Patterson
Project Scientist

Reviewed by:



Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map

Figure 3: Site and Sample Location Map

Tables:

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

Appendices:

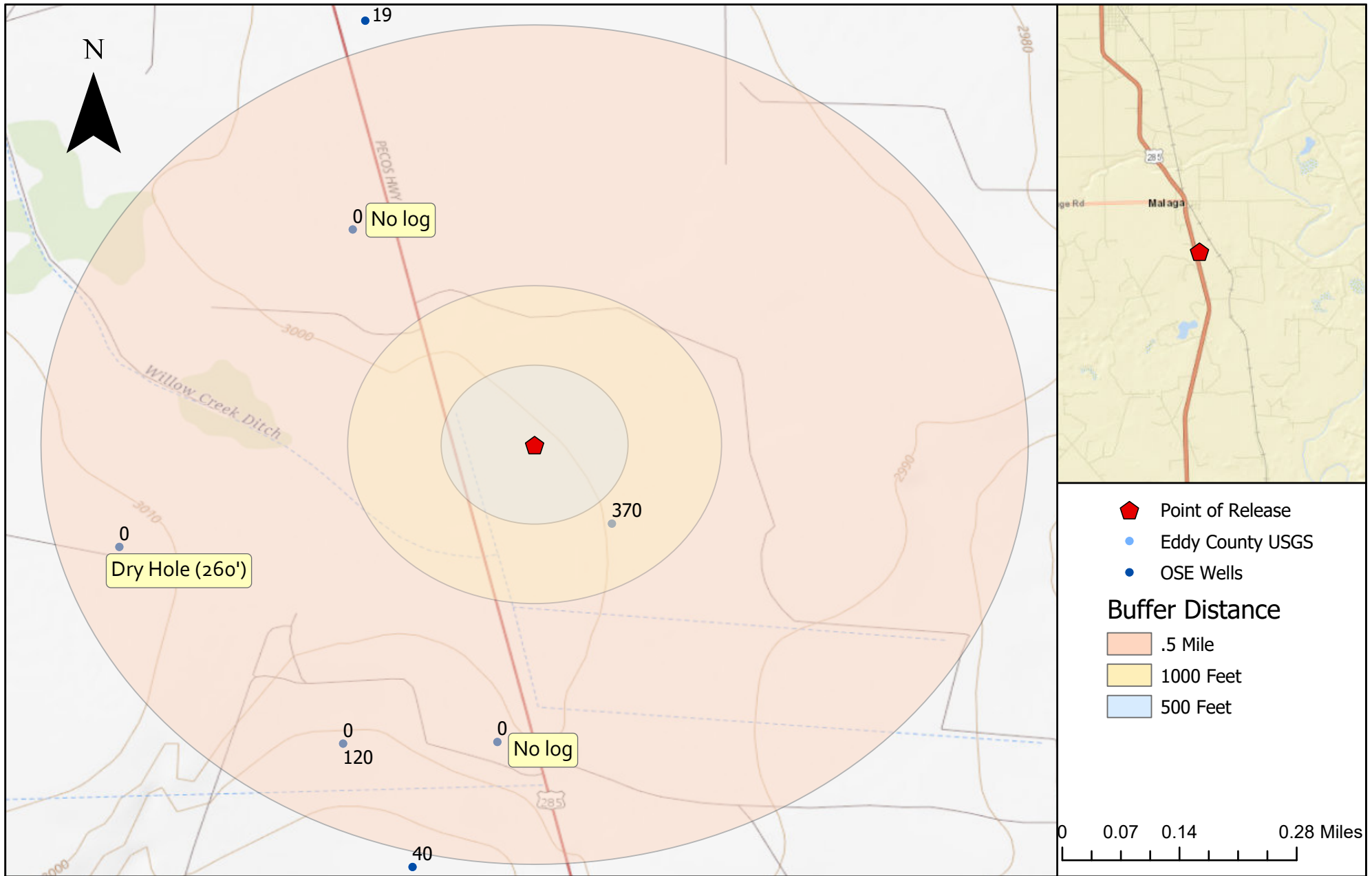
Appendix A: Form C141

Appendix B: NMOSE Wells Report

Appendix C: Sampling Protocol, Field Notes, and Photo Documentation

Appendix D: Laboratory Analytical Reports

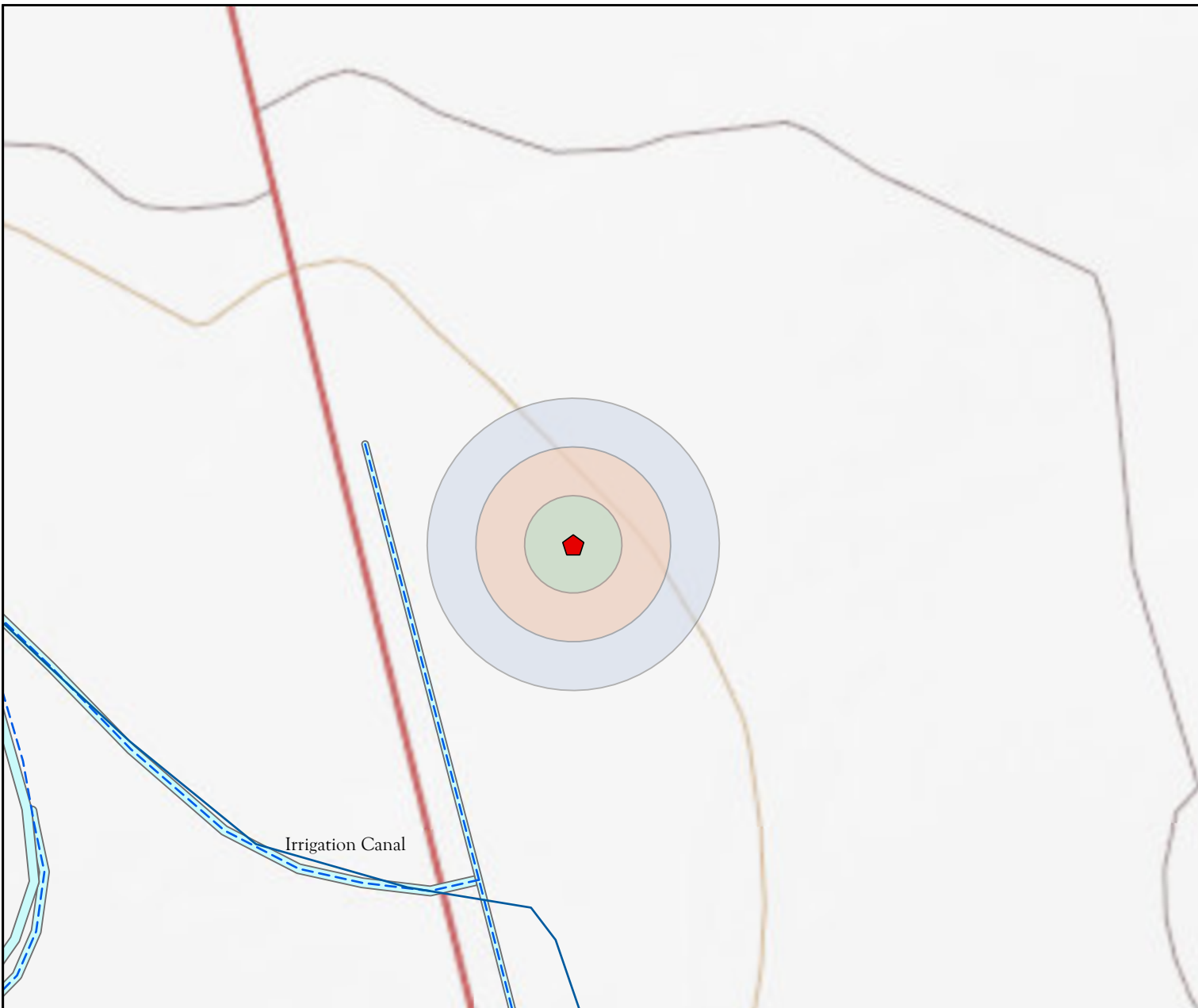
FIGURES



Regional Vicinity & Wellhead Protection Map
 Chicken Fry Federal #1H - Marathon
 Sec 22 T24S R28E, New Mexico

Figure 1

\\CBO10\Projects\5-Marathon MSA 2019 (5E27950)\GIS\ARCGIS\MARATHON_MIT.aprx



Legend

- Point of Release
- Springs Seeps
- Streams Canals
- Rivers
- Flowlines SENM
- NM Wetlands
- Lakes Playas
- FEMA Flood Zones 2011

Buffer Distance

- 100 Feet
- 200 Feet
- 300 Feet



0 90 180 360 US Feet

Surface Water Protection Map
Chicken Fry Federal #1H - Marathon
Sec 22 T24S R28E, New Mexico

Figure 2

Revisions
By: _____ Date: _____ Descr: _____
By: _____ Date: _____ Descr: _____
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Drawn Heather Patterson
Date 2/21/2019
Checked _____
Approved _____




201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
Serving the Southwest & Rocky Mountains



Site and Sample location Map
Chicken Fry Federal #1H- Marathon
Sec 22 T24S R28E, New Mexico

Figure 3

Date Saved: 3/12/2019	Revisions			Drawn	<u>Heather Patterson</u>		201 South Halaguena Street
	By: _____	Date: _____	Descr: _____	Date	<u>3/12/2019</u>		Carlsbad, New Mexico 88221
	By: _____	Date: _____	Descr: _____	Checked	_____		(575) 689-7040
	Copyright 2018-19 Souder, Miller & Associates - All Rights Reserved			Approved	_____		Serving the Southwest & Rocky Mountains

TABLES

Table 2:
NMOCD Closure Criteria

Marathon Permian
Chicken Fry Federal 1H (2RP-5297)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	370	NMOSE
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	650 (nearest)	USGS Topo map, NMOSE
Horizontal Distance to Nearest Significant Watercourse (ft)	350	irrigation canal to the west, USGS Topo Map

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'	X	20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	no	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
<1000' from fresh water well or spring?	no					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	no					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
<100' from wetland?	no					
within area overlying a subsurface mine	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

Table 3:
Summary of Sample Results

Marathon
Chicken Fry Fed 1H (2RP-5297)

Sample ID	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- mg/Kg
NMOCD Closure Criteria				50	10	1000			2500	20,000
L1	2/21/2019	1	in-situ	<0.23	<0.025	<4.9	<9.6	<48	<63	340
	2/21/2019	2	in-situ	--	--	--	--	--	--	190
	2/21/2019	3	in-situ	--	--	--	--	--	--	170
L2	2/21/2019	1	in-situ	<0.23	<0.024	<4.8	<9.9	<49	<64	950
	2/21/2019	2	in-situ	--	--	--	--	--	--	910
	2/21/2019	3	in-situ	--	--	--	--	--	--	650
L3	2/21/2019	1	in-situ	<0.23	<0.024	<4.8	<9.5	<48	<63	120
	2/21/2019	2	in-situ	--	--	--	--	--	--	420
	2/21/2019	3	in-situ	--	--	--	--	--	--	120
L4	3/6/2019	1	in-situ	<0.23	<0.025	<5.0	<9.6	<48	<63	100
	3/6/2019	3	in-situ	--	--	--	--	--	--	79

--" = Not Analyzed

APPENDIX A

FORM C141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1907237265
District RP	2RP-5297
Facility ID	
Application ID	pAB1907236935

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD) NAB1907237265
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	NAB1907237265
District RP	2RP-5297
Facility ID	
Application ID	pAB1907236935

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.	
Printed Name: _____	Title: _____
Signature: <u>Callie Karrigan</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u> Received by: <u>Ana Botamante</u> Date: <u>3/13/2019</u>	

Incident ID	nAB1907237265
District RP	2RP-5297
Facility ID	
Application ID	pAB1907236935

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>370</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input checked="" type="checkbox"/> Field data<input checked="" type="checkbox"/> Data table of soil contaminant concentration data<input checked="" type="checkbox"/> Depth to water determination<input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input type="checkbox"/> Boring or excavation logs<input checked="" type="checkbox"/> Photographs including date and GIS information<input checked="" type="checkbox"/> Topographic/Aerial maps<input checked="" type="checkbox"/> Laboratory data including chain of custody
--

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Incident ID	nAB1907237265
District RP	2RP-5297
Facility ID	
Application ID	pAB1907236935

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 3/19/2019

email: cnkarrigan@marathonoil.com Telephone: 575-297-0956

OCD Only

Received by: _____ Date: _____

Incident ID	nAB1907237265
District RP	2RP-5297
Facility ID	
Application ID	pAB1907236935

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 3/19/2019

email: cnkarrigan@marathonoil.com Telephone: 575-297-0956

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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
C 04263 POD1	CUB	ED	3	1	1	23	24S	28E	588026	3563915		208	390	370	20
C 03986 POD1	CUB	ED	3	4	2	22	24S	28E	587505	3563502		665	170	120	50
C 02244	C	LE	3	1	2	22	24S	28E	587224	3563865*		677	260		
C 04222 POD2	CUB	ED	1	2	4	22	24S	28E	587707	3563255		818	100	40	60
C 03132	C	ED	1	2	4	15	24S	28E	587616	3564877*		859	90	19	71

Average Depth to Water: **137 feet**

Minimum Depth: **19 feet**

Maximum Depth: **370 feet**

Record Count: 5

UTM NAD83 Radius Search (in meters):

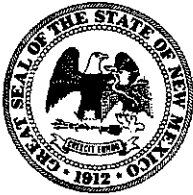
Easting (X): 587873.72

Northing (Y): 3564056.83

Radius: 1000

*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.



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

2019 OCT - 4 AM 11:00
STATE ENGINEER OFFICE
ROSSELL, NEW MEXICO

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) Expl-POD1		WELL TAG ID NO.		OSE FILE NO(S). C-4263					
	WELL OWNER NAME(S) Rustler Hills II LTD Partnership				PHONE (OPTIONAL)					
	WELL OWNER MAILING ADDRESS 706 W. Riverside Drive				CITY Carlsbad		STATE NM	ZIP 88220		
	WELL LOCATION (FROM GPS)	LATITUDE	DEGREES 32	MINUTES 12	SECONDS 30.14	N				
		LONGITUDE	104	3	57.47	W				
* ACCURACY REQUIRED: ONE TENTH OF A SECOND										
* DATUM REQUIRED: WGS 84										
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE										
2. DRILLING & CASING INFORMATION	LICENSE NO. WD 1690		NAME OF LICENSED DRILLER Jason Maley				NAME OF WELL DRILLING COMPANY Vision Resources			
	DRILLING STARTED 9/12/18		DRILLING ENDED 9/13/18		DEPTH OF COMPLETED WELL (FT) 390		BORE HOLE DEPTH (FT) 400		DEPTH WATER FIRST ENCOUNTERED (FT) 370	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) 218			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY: foam									
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:									
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)		
	FROM	TO								
	+1.5	290	12.75	PVC 200	spline	8	.25			
	290	390	12.75	PVC 200	spline	8	.25	.030		
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT				
	FROM	TO								
	0	25	12.75	neat cement	13	1 inch backside				
	25	390	12.75	3/8 pea gravel	169	backside with tag line				

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	C-4263	POD NO.	1	TRN NO.	627306
LOCATION	245.28E.23.1.1.3			WELL TAG ID NO.	N/A
					PAGE 1 OF 2

STOCKS
BOND
CASH
COMMODITIES
CREDIT
DEBIT
EQUITY
FIXED
INCOME
LIABILITY
MONEY
PROPERTY
REAL
SECURITIES
TAX
WARRANTS

APPENDIX C

SAMPLING PROTOCOL,
FIELD NOTES, & PHOTO
DOCUMENTATION



Sampling Protocol

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of nine (9) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Sampling Analysis Field Quality Assurance Procedures

A unique sample numbering was used to identify each sample collected and designated for on-site and off-site laboratory analysis. The purpose of this numbering scheme was to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project. Sample labels were affixed to all sample containers during sampling activities. Information was recorded on each sample container label at the time of sample collection. The information recorded on the labels were as follows: sample identification number; sample type (discrete or composite); site name and area/location number; analysis to be performed; type of chemical preservative present in container; date and time of sample collection; and sample collector's name and initials. All samples were packed in ice in an approved rigid body container, custody sealed signed and shipped to the appropriate laboratory via insured carrier service.

COC procedures implemented for the project provided documentation of the handling of each sample from the time of collection until completion of laboratory analysis. A COC form serves as a legal record of possession of the sample. A sample is considered to be under custody if one or more of the following criteria are met: the sample is in the sampler's possession; the sample is in the sampler's view after being in possession; the sample was in the sampler's possession and then was placed into a locked area to prevent tampering; and/or the sample is in a designated secure area. Custody was documented throughout the project field sampling activities by a chain-of custody form initiated each day during which samples are collected. Container custody seals placed on either individual samples or on the rigid body container were used to ensure that no sample tampering occurs between the time the samples are placed into the containers and the time the containers are opened for analysis at the laboratory. Container custody seals were signed and dated by the individual responsible for completing the COC form contained within the container.

Field Screening

HP

Location Name

Date

Chicken Fry Fed #14

Location Name	Description	Depth (Feet BGS)	Time Collected	Temp Time Screened	EC PID Reading (ppm)
L1	Carbide Pad	1	11:27	13.2°	1.63
L1		2	12:00	-	-
L1		3	12:09	19.1°	1.08
L2		1	11:36	11.8°	1.62
L2		2	11:43	14.4°	1.82
L2		3	11:53	-	-
L3		1	11:30	11.9°	1.44
L3		2	11:37	14.1°	2.01
L3		3	11:48	15.4°	2.12

Photo Log

Photo Taken February 21, 2019

Facing north

-104.0672571°W 32.2097216°N



Photo Taken March 6, 2019

Facing East

-104.0672571°W 32.2097216°N



Photo Taken March 6, 2019

Facing Southeast

-104.0672571°W 32.2097216°N



APPENDIX D
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

February 28, 2019

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

RE: Chicken Fry

OrderNo.: 1902973

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 2/22/2019 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 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 horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1902973

Date Reported: 2/28/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-1

Project: Chicken Fry

Collection Date: 2/21/2019 11:27:00 AM

Lab ID: 1902973-001

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	340	60		mg/Kg	20	2/25/2019 4:05:42 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/25/2019 9:12:31 PM	43309
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/25/2019 9:12:31 PM	43309
Surr: DNOP	91.9	70-130		%Rec	1	2/25/2019 9:12:31 PM	43309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2019 1:55:15 PM	43299
Surr: BFB	103	73.8-119		%Rec	1	2/25/2019 1:55:15 PM	43299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/25/2019 1:55:15 PM	43299
Toluene	ND	0.049		mg/Kg	1	2/25/2019 1:55:15 PM	43299
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2019 1:55:15 PM	43299
Xylenes, Total	ND	0.098		mg/Kg	1	2/25/2019 1:55:15 PM	43299
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	2/25/2019 1:55:15 PM	43299

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-2

Project: Chicken Fry

Collection Date: 2/21/2019 12:00:00 PM

Lab ID: 1902973-002

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	190	60		mg/Kg	20	2/22/2019 9:05:24 PM	43302

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-3

Project: Chicken Fry

Collection Date: 2/21/2019 12:09:00 PM

Lab ID: 1902973-003

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	170	60		mg/Kg	20	2/22/2019 9:17:49 PM	43302

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 1902973

Date Reported: 2/28/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-1

Project: Chicken Fry

Collection Date: 2/21/2019 11:36:00 AM

Lab ID: 1902973-004

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	950	60		mg/Kg	20	2/25/2019 4:18:06 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/25/2019 9:34:24 PM	43309
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2019 9:34:24 PM	43309
Surr: DNOP	91.2	70-130		%Rec	1	2/25/2019 9:34:24 PM	43309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/25/2019 2:18:34 PM	43299
Surr: BFB	104	73.8-119		%Rec	1	2/25/2019 2:18:34 PM	43299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/25/2019 2:18:34 PM	43299
Toluene	ND	0.048		mg/Kg	1	2/25/2019 2:18:34 PM	43299
Ethylbenzene	ND	0.048		mg/Kg	1	2/25/2019 2:18:34 PM	43299
Xylenes, Total	ND	0.096		mg/Kg	1	2/25/2019 2:18:34 PM	43299
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	2/25/2019 2:18:34 PM	43299

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-2

Project: Chicken Fry

Collection Date: 2/21/2019 11:43:00 AM

Lab ID: 1902973-005

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	910	60		mg/Kg	20	2/22/2019 9:30:13 PM	43302

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-3

Project: Chicken Fry

Collection Date: 2/21/2019 11:53:00 AM

Lab ID: 1902973-006

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	650	60		mg/Kg	20	2/22/2019 9:42:37 PM	43302

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 1902973

Date Reported: 2/28/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-1

Project: Chicken Fry

Collection Date: 2/21/2019 11:30:00 AM

Lab ID: 1902973-007

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	120	60		mg/Kg	20	2/25/2019 4:30:31 PM	43327
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/25/2019 9:56:30 PM	43309
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/25/2019 9:56:30 PM	43309
Surr: DNOP	92.2	70-130		%Rec	1	2/25/2019 9:56:30 PM	43309
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/25/2019 2:41:51 PM	43299
Surr: BFB	102	73.8-119		%Rec	1	2/25/2019 2:41:51 PM	43299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/25/2019 2:41:51 PM	43299
Toluene	ND	0.048		mg/Kg	1	2/25/2019 2:41:51 PM	43299
Ethylbenzene	ND	0.048		mg/Kg	1	2/25/2019 2:41:51 PM	43299
Xylenes, Total	ND	0.096		mg/Kg	1	2/25/2019 2:41:51 PM	43299
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	2/25/2019 2:41:51 PM	43299

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-2

Project: Chicken Fry

Collection Date: 2/21/2019 11:37:00 AM

Lab ID: 1902973-008

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	420	60		mg/Kg	20	2/22/2019 9:55:02 PM	43302

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 **1902973**

Date Reported: **2/28/2019**

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-3

Project: Chicken Fry

Collection Date: 2/21/2019 11:48:00 AM

Lab ID: 1902973-009

Matrix: SOIL

Received Date: 2/22/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	120	59		mg/Kg	20	2/22/2019 10:32:15 PM	43302

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#: 1902973

28-Feb-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: MB-43302	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 43302	RunNo: 57905
Prep Date: 2/22/2019	Analysis Date: 2/22/2019	SeqNo: 1939513 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-43302	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 43302	RunNo: 57905
Prep Date: 2/22/2019	Analysis Date: 2/22/2019	SeqNo: 1939514 Units: mg/Kg
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

Sample ID: MB-43327	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 43327	RunNo: 57937
Prep Date: 2/25/2019	Analysis Date: 2/25/2019	SeqNo: 1940123 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-43327	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 43327	RunNo: 57937
Prep Date: 2/25/2019	Analysis Date: 2/25/2019	SeqNo: 1940124 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.4 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#: 1902973

28-Feb-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: LCS-43303	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 43303	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939464			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		87.0	70	130			

Sample ID: MB-43303	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 43303	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939465			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.3		10.00		83.3	70	130			

Sample ID: LCS-43309	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 43309	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1940344			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.9	63.9	124			
Surr: DNOP	4.0		5.000		79.3	70	130			

Sample ID: MB-43309	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 43309	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1940345			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	9.3		10.00		93.3	70	130			

Sample ID: 1902973-007AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: L3-1	Batch ID: 43309	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1940355			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.7	48.40	0	96.1	53.5	126			
Surr: DNOP	14		14.52		96.6	70	130			

Sample ID: 1902973-007AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: L3-1	Batch ID: 43309	RunNo: 57917								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1940356			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.69	0	93.8	53.5	126	1.85	21.7	

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#: 1902973

28-Feb-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: 1902973-007AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: L3-1		Batch ID: 43309		RunNo: 57917						
Prep Date: 2/22/2019		Analysis Date: 2/25/2019		SeqNo: 1940356			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	14		14.61		93.6	70	130	0	0	

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#: 1902973

28-Feb-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: MB-43299	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 43299	RunNo: 57928								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939788	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	1100		1000		106	73.8	119			

Sample ID: LCS-43299	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 43299	RunNo: 57928								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939789	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	80.1	123			
Surr: BFB	1200		1000		120	73.8	119			S

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#: 1902973

28-Feb-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: MB-43299	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 43299	RunNo: 57928								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939803	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: LCS-43299	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 43299	RunNo: 57928								
Prep Date: 2/22/2019	Analysis Date: 2/25/2019	SeqNo: 1939804	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.1	80	120			
Toluene	0.94	0.050	1.000	0	93.9	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

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
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: 1902973

RcptNo: 1

Received By: Leah Baca 2/22/2019 8:30:00 AM

Completed By: Erin Melendrez 2/22/2019 9:00:35 AM

Reviewed By: ENM 2/22/19

LB: YN 2/22/19

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 $>0^{\circ}\text{C}$ 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: YN 2/22/19
(<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: ☐ 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	1.8	Good	Yes			
2	1.8	Good	Yes			

Chain-of-Custody Record

Client: SMT

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Project Manager:

Holly Patterson

Sampler:

On Ice: ☒ Yes ☐ No

of Coolers: 2

Cooler Temp (including CF): 1.9 C, 1.9 C

Date Time Matrix Sample Name

2/21/19 11:27 Soil L1-1

12:00 L1-2

12:09 L1-3

11:36 L2-1

11:43 L2-2

11:53 L2-3

11:30 L3-1

11:37 L3-2

11:48 L3-3

Date Time Relinquished by:

2/21/19 1430 [Signature]

Date Time Relinquished by:

2/21/19 1900 [Signature]

Received by:

[Signature] Via

Date Time

2/21/19 1430

Date Time

2/21/19 1430

Date Time

2/22/19 8:30

Remarks:

Marathon



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

March 12, 2019

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

RE: Chicken Fry

OrderNo.: 1903398

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/8/2019 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 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 horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1903398

Date Reported: 3/12/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: L4-1

Project: Chicken Fry

Collection Date: 3/6/2019 12:20:00 PM

Lab ID: 1903398-001

Matrix: SOIL

Received Date: 3/8/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	100	60		mg/Kg	20	3/11/2019 6:21:06 PM	43603
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/11/2019 12:14:59 PM	43588
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/11/2019 12:14:59 PM	43588
Surr: DNOP	96.8	70-130		%Rec	1	3/11/2019 12:14:59 PM	43588
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/11/2019 7:14:59 PM	43577
Surr: BFB	95.9	73.8-119		%Rec	1	3/11/2019 7:14:59 PM	43577
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	3/11/2019 7:14:59 PM	43577
Toluene	ND	0.050		mg/Kg	1	3/11/2019 7:14:59 PM	43577
Ethylbenzene	ND	0.050		mg/Kg	1	3/11/2019 7:14:59 PM	43577
Xylenes, Total	ND	0.10		mg/Kg	1	3/11/2019 7:14:59 PM	43577
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	3/11/2019 7:14:59 PM	43577

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 1903398

Date Reported: 3/12/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: L4-3

Project: Chicken Fry

Collection Date: 3/6/2019 12:25:00 PM

Lab ID: 1903398-002

Matrix: SOIL

Received Date: 3/8/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	79	60		mg/Kg	20	3/11/2019 6:33:30 PM	43603

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#: 1903398

12-Mar-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: MB-43603	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 43603	RunNo: 58259
Prep Date: 3/11/2019	Analysis Date: 3/11/2019	SeqNo: 1954599 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-43603	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 43603	RunNo: 58259
Prep Date: 3/11/2019	Analysis Date: 3/11/2019	SeqNo: 1954600 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 95.3 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#: 1903398

12-Mar-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: MB-43602	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 43602	RunNo: 58252								
Prep Date: 3/11/2019	Analysis Date: 3/11/2019	SeqNo: 1953823	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.7	70	130			

Sample ID: LCS-43602	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 43602	RunNo: 58252								
Prep Date: 3/11/2019	Analysis Date: 3/11/2019	SeqNo: 1953824	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.8	70	130			

Sample ID: MB-43588	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 43588	RunNo: 58263								
Prep Date: 3/8/2019	Analysis Date: 3/11/2019	SeqNo: 1954160	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	10		10.00		100	70	130			

Sample ID: LCS-43588	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 43588	RunNo: 58263								
Prep Date: 3/8/2019	Analysis Date: 3/11/2019	SeqNo: 1954161	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.3	63.9	124			
Surr: DNOP	5.1		5.000		102	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#: 1903398

12-Mar-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: LCS-43599	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 43599		RunNo: 58248							
Prep Date: 3/9/2019	Analysis Date: 3/11/2019		SeqNo: 1953564	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		105	73.8	119			

Sample ID: MB-43599	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 43599		RunNo: 58248							
Prep Date: 3/9/2019	Analysis Date: 3/11/2019		SeqNo: 1953812	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.9	73.8	119			

Sample ID: MB-43577	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 43577		RunNo: 58248							
Prep Date: 3/8/2019	Analysis Date: 3/11/2019		SeqNo: 1954251	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	940		1000		94.0	73.8	119			

Sample ID: LCS-43577	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 43577		RunNo: 58248							
Prep Date: 3/8/2019	Analysis Date: 3/11/2019		SeqNo: 1954252	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.3	80.1	123			
Surr: BFB	1100		1000		108	73.8	119			

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#: 1903398

12-Mar-19

Client: Souder, Miller & Associates

Project: Chicken Fry

Sample ID: 100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: B58248			RunNo: 58248						
Prep Date:	Analysis Date: 3/11/2019			SeqNo: 1953805		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: MB-43577	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 43577			RunNo: 58248						
Prep Date: 3/8/2019	Analysis Date: 3/11/2019			SeqNo: 1954300		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID: LCS-43577	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 43577			RunNo: 58248						
Prep Date: 3/8/2019	Analysis Date: 3/11/2019			SeqNo: 1954301		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.7	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Sample ID: RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: B58248			RunNo: 58248						
Prep Date:	Analysis Date: 3/11/2019			SeqNo: 1954756		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120			

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: **1903398**

RcptNo: 1

Received By: **Isaiah Ortiz**

3/8/2019 8:45:00 AM

Completed By: **Victoria Zellar**

3/8/2019 9:06:10 AM

Reviewed By: **LB**

3/8/19

I-OK
Victoria Zellar *labeled by* *TO* *3/8/19*

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:

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	1.3	Good	Yes			

