

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	nTO1503036705
District RP	1RP-3519
Facility ID	
Application ID	pTO150303714

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?	555 (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.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ 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.

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State of New Mexico
Oil Conservation Division

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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: Jon B. FieldsTitle: Director, Field EnvironmentalSignature: Date: 5-14-19email: jefields@eprod.comTelephone: 713-381-6684**OCD Only**

Received by: _____

Date: _____

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State of New Mexico
Oil Conservation Division

Incident ID	nTO1503036705
District RP	1RP-3519
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Remediation Plan

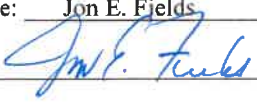
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.


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: Jon E. Fields Title: Director, Field Environmental
 Signature:  Date: 5-14-19
 email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: _____ Date: _____

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:  Date: 4/14/2023

Deferral request approved. The deferral request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.

Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations or equipment has been moved, which ever comes first.



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220
(575) 689-8801

May 13, 2019

#5E27957-BG5

NMOCD District 1
1625 N. French Drive
Hobbs, New Mexico 88240

SUBJECT: Remediation Closure Report for the Corazon Compression Station Release (1RP-3519),
Lea County, New Mexico

To Whom it May Concern:

On behalf of Enterprise Products, 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 Corazon Compression Station site. The site is in Unit D, Section 27, Township 21S, Range 33E, Lea County, New Mexico, on Private 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	Corazon Compression Station	Company	Enterprise Products
API Number	Not Applicable	Location	32.456221 -103.566800
Incident Number	1RP-3519		
Estimated Date of Release	January 23, 2015	Date Reported to NMOCD	January 23, 2015
Land Owner	Private Owner	Reported To	NMOCD, Tomas Oberding
Source of Release	Blowcase Vessel		
Released Volume	35 bbl	Released Material	Pipeline Liquids
Recovered Volume	0 bbl	Net Release	35 bbl
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	March 7, April 22-23, 2019		

1.0 Background

On January 23, 2015, a release was discovered at the Corazon Compressor Station site due to a Blowcase Vessel overfilling. Initial response activities were conducted by Enterprise personnel, and included dispatching a vacuum truck. Due to the sandy soil, the vacuum truck was unable to recover any fluid. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The final C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Corazon Compressor Station is located approximately 30 miles southwest of Hobbs, New Mexico on privately-owned land. As summarized in Table 2 and illustrated in Figure 1, depth to groundwater in the area is estimated to be 555 feet below grade surface (bgs). There are two (2) 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 4/8/2019). The nearest surface water is an unnamed playa located approximately 4,400 feet to the northeast of site.

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. A request for deferral by NMOCD per 19.15.29.12.B. (2), is being submitted for sample locations that cannot 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 Activities and Findings

On March 7, 2019, SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area.

A total of three (3) sample locations (L1–L3) were investigated using a hand-auger, to depths up to two (2) feet bgs. A total of four (4) 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. Table 3 itemizes the samples. Locations for all samples are depicted on Figure 3.

Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

4.0 Soil Remediation Summary

From April 22 to 23, 2019, SMA returned to the site to oversee the excavation of contaminated soil. Due to the amount of equipment surrounding the release, the release area was hydro-excavated. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter. The walls and base were excavated until field screening results indicated that the NMOCD closure criteria would be met. NMOCD was notified on April 18, 2019 that closure samples were expected to be collected in two (2) business days.

On April 22, 2019, SMA conducted confirmation sampling of the walls and base of the excavation, which measured approximately 35 feet by 10 feet. The area around sample location CS1 was excavated to a depth of 2 feet bgs, and sample locations CS2 and CS3 were excavated to a depth of 1 foot bgs. The confirmation samples were collected from within the excavation in accordance with the sampling protocol

Corazon Compressor Station Remediation Closure Report (1RP-3519)

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May 13, 2019

included in Appendix C. Confirmation samples were comprised of five-point composites of the base (CS1-CS3) and walls (SW1-SW4). Due to the presence of equipment and electrical lines, the southern sidewalls (SW1 and SW4) were unable to be further excavated. We are requesting deferral at these two locations as they meet the requirements of 19.15.29.12.B.(2) NMAC.

Figure 3 shows the extent of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at R360 near Hobbs, NM, an NMOCD permitted disposal facility.

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

Reviewed by:



Heather Patterson
Project Scientist



Shawna Chubbuck
Senior Scientist

Corazon Compressor Station Remediation Closure Report (1RP-3519)
May 13, 2019

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ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Protection Map

Figure 3: Site and Sample Location Map

Tables:

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

Appendices:

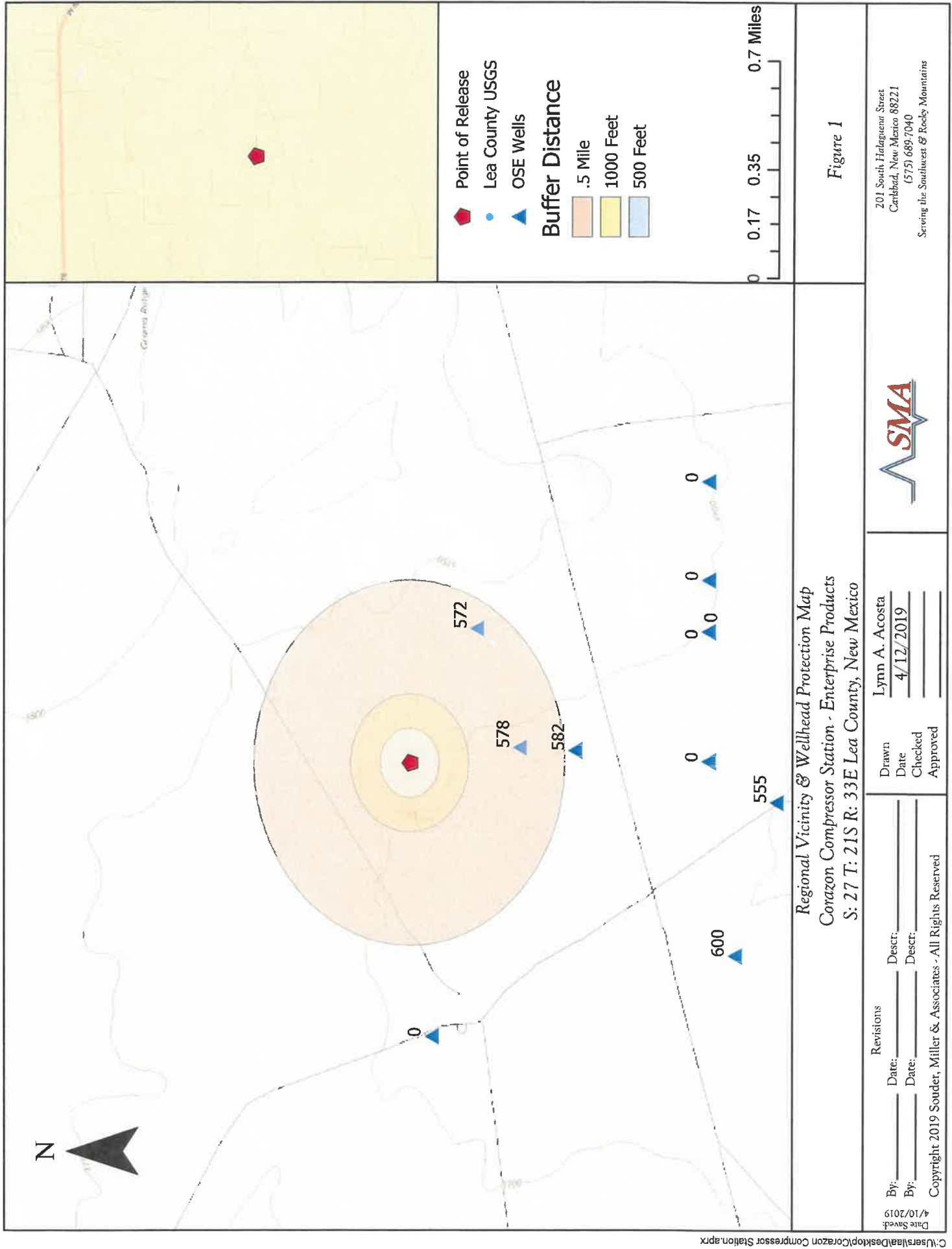
Appendix A: Form C141 Initial and Final

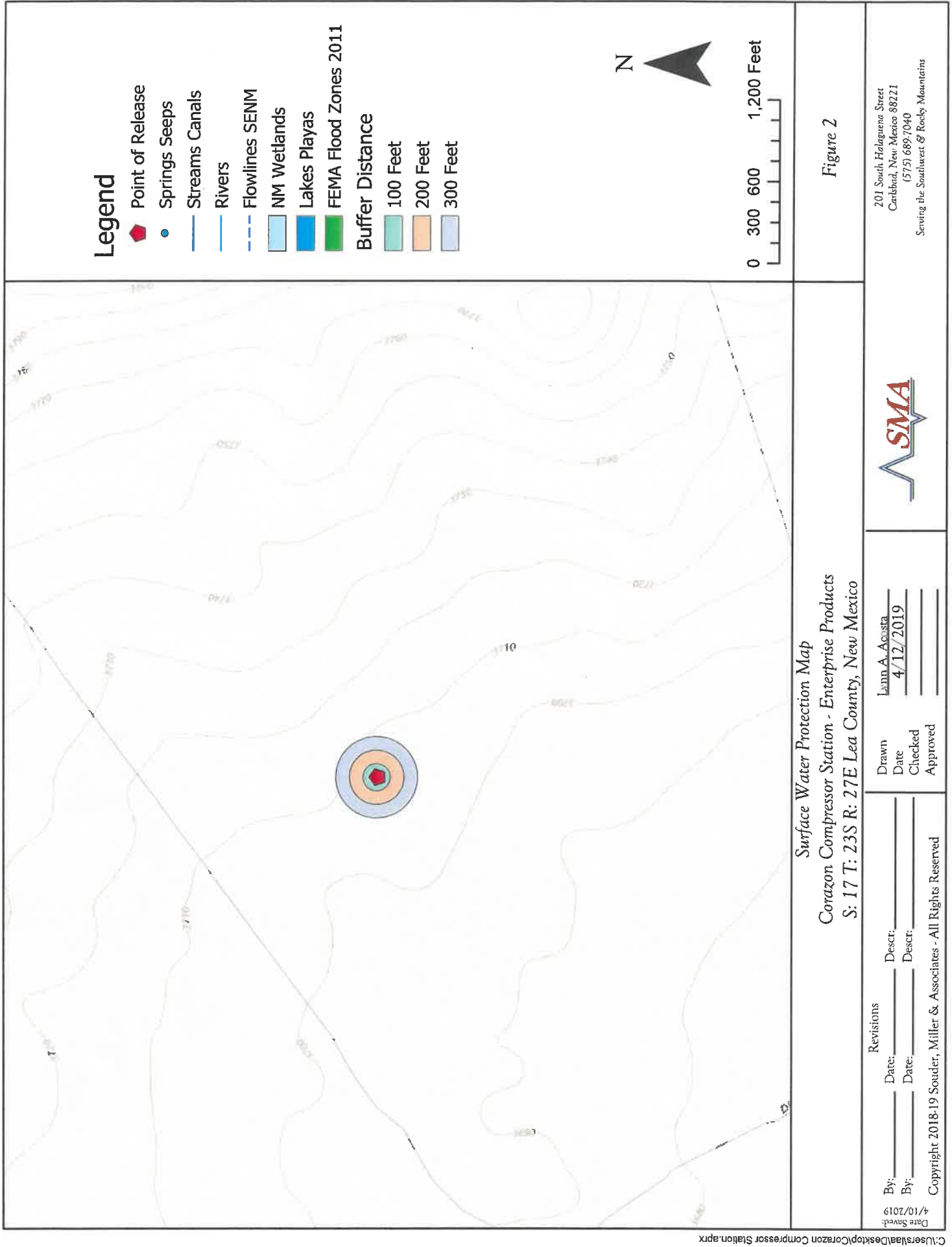
Appendix B: NMOSE Wells Report

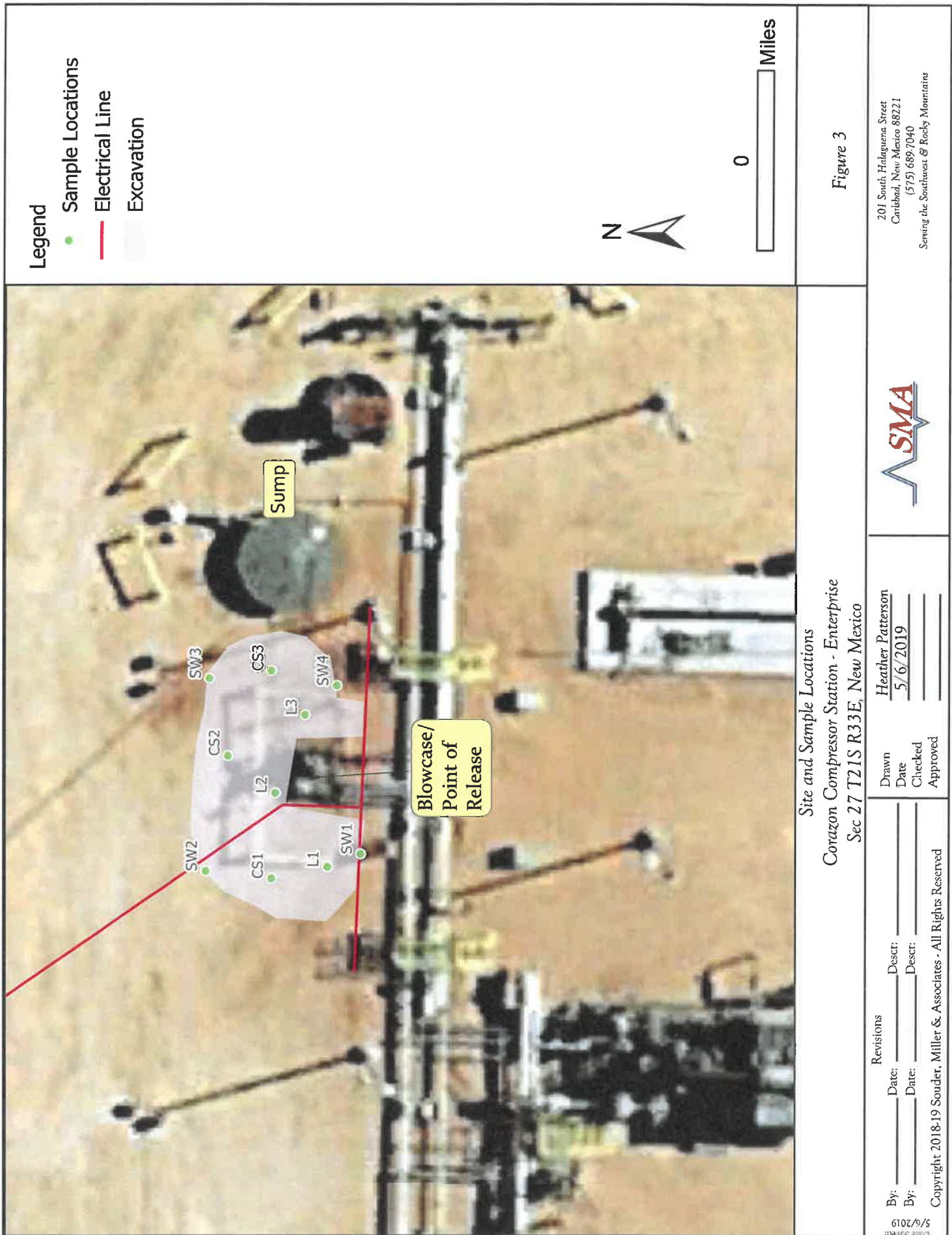
Appendix C: Sampling Protocol, Field Notes and Photo Documentation

Appendix D: Laboratory Analytical Reports

FIGURES







\\CBO10\Projects\5-XTO 2019 MSA On Call Services (5E27960)\GIS\ARC\GIS\MISC_MIT.aprx

TABLES

Table 2:
NMOCD Closure CriteriaEnterprise Products
Corazon Compressor Station (1RP-3519)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	555	New Mexico Office of State Engineer
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	2,000	USGS Topo Map
Horizontal Distance to Nearest Significant Watercourse (ft)	4,200	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'		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					

SMA #

Table 3:
Summary of Sample Results

Initial Samples										
Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMED Closure Criteria				50	10	1000			2500	20000
L1	3/7/2019	0.5	excavate	2.14	<0.024	13	2700	3500	6213	68
L2	3/7/2019	0.5	excavate	59.4	<0.12	970	2400	990	4360	740
	3/7/2019	2	in-situ	0.414	<0.024	16	260	340	616	100
L3	3/7/2019	0.5	excavate	3.647	0.047	170	8600	4500	13270	110

Closure Samples										
Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMED Closure Criteria				50	10	1000			2500	20000
CS1	4/22/2019	2	in-situ	<0.23	<0.025	<4.9	<9.4	<47	<62	<59
CS2	4/23/2019	1	in-situ	<0.23	<0.024	<4.8	99	190	289	<60
CS3	4/23/2019	1	in-situ	<0.23	<0.024	<4.9	43	80	123	<60
SW1	4/22/2019	0-2	in-situ	<0.23	<0.025	<4.9	1300	1300	2600	110
SW2	4/22/2019	0-1	in-situ	<0.23	<0.025	<5.0	18	63	81	<60
SW3	4/23/2019	0-1	in-situ	<0.23	<0.025	<5.0	<9.5	<48	<63	<60
SW4	4/23/2019	0-1	in-situ	<0.23	<0.025	<4.9	2700	2100	4800	110

SMA #

APPENDIX A FORM C141 FINAL

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

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Enterprise Field Services LLC	Contact Dina Babinski
Address PO Box 4324, Houston TX 77210	Telephone No. 210-528-3824
Facility Name Corazon Compressor Station	Facility Type Natural Gas Compressor Station
Surface Owner Private Owner	Mineral Owner Private Owner
API No. NA	

LOCATION OF RELEASE

Unit Letter D	Section 27	Township 21S	Range 33E	Feet from the 316	North/South Line North	Feet from the 665	East/West Line West	County Lea
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Latitude **N 32.456221** Longitude **W -103.566800**

NATURE OF RELEASE

Type of Release Pipeline Liquids	Volume of Release 35 bbl	Volume Recovered NA
Source of Release Blowcase Vessel	Date and Hour of Occurrence 1/23/2015 @ 15:05 MST	Date and Hour of Discovery 1/23/2015 @ 15:05 MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding	
By Whom? Osman De Leon	Date and Hour 1/23/2015 @ 16:09 MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*



The station received a large amount of liquids from natural gas producers. The liquid flowrate was larger than what the vessel could manage causing an over fill and release. Approximately 25 bbls pipeline liquids were released initially. During equipment inspection and clean-up, an additional 10 bbls were released.

Describe Area Affected and Cleanup Action Taken.*

Operations proceeded to collect the free-standing liquids with a vacuum truck immediately after the spills. Contaminated soil will be excavated and properly disposed following a standard one-call. Soil sampling will be performed to confirm that cleanup meets NMOCD remediation guidelines. A final C-141 will be submitted when the confirmation samples demonstrate that cleanup is complete.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by:  Hydrologist	
Printed Name: Ivan W. Zirbes	Approval Date: 01/30/2015	Expiration Date: 03/30/2015
Title: Sr. Director, Environmental	Conditions of Approval: Site samples required. Delineate and remediate area as per NMOCD	
E-mail Address: Snolan@eprod.com	Attached <input type="checkbox"/> IRP-3519	
Date: 1-30-2015 Phone: 713-381-6595	nTO1503036705 pTO1503037014	

* Attach Additional Sheets If Necessary

guides. Submit final C-141 by
03/30/2015.

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	Code	POD Sub-basin	County	Q	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	WaterColumn
CP 01357 POD1	CP	LE	4	3	1	27	21S	33E			634782	3591347	567	1286	578	708
CP 01349 POD1	CP	LE	2	3	1	27	21S	33E			635304	3591576	686	1188	572	616
CP 01355 POD1	CP	LE	2	1	3	27	21S	33E			634773	3591061	851	1192	582	610
CP 00601 POD1	CP	LE		2	1	28	21S	33E			633502	3591791*	1208	223		
CP 01411 POD2	CP	LE		1	2	34	21S	33E			635534	3590380	1740	1125		
CP 00854 POD1	CP	LE	1	1	2	33	21S	33E			633879	3590223	1878	950	600	350
CP 01356 POD1	CP	LE	4	2	2	33	21S	33E			634560	3590014	1901	1098	555	543
CP 01411 POD1	CP	LE		2	2	34	21S	33E			635968	3590386	1979	1149		

Average Depth to Water: **577 feet**

Minimum Depth: **555 feet**

Maximum Depth: **600 feet**

Record Count:8

UTM NAD83 Radius Search (in meters):

Easting (X): 634704.8

Northing (Y): 3591910.4

Radius: 3000

*UTM location was derived from PLSS - see Help

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

4/8/19 3:23 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C

SAMPLING PROTOCOL, PHOTO DOCUMENTATION & FIELD NOTES



Souder, Miller & Associates ♦ 201 S. Halagueno ♦ Carlsbad, NM 88220
(575) 689-8801

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 seven (7) 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 courier 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.

Date:

Coaraze

[illegible]

Photo Log

Photo Taken April 23, 2019

Facing east

32.4565, -103.5669



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

March 19, 2019

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

RE: Corazon

OrderNo.: 1903512

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/12/2019 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 light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1903512

Date Reported: 3/19/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** L1-0.5**Project:** Corazon**Collection Date:** 3/7/2019 1:08:00 PM**Lab ID:** 1903512-001**Matrix:** SOIL**Received Date:** 3/12/2019 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	68	60		mg/Kg	20	3/18/2019 12:36:06 PM	43722
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	2700	95		mg/Kg	10	3/13/2019 9:03:12 AM	43633
Motor Oil Range Organics (MRO)	3500	470		mg/Kg	10	3/13/2019 9:03:12 AM	43633
Surr: DNOP	0	70-130	S	%Rec	10	3/13/2019 9:03:12 AM	43633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	13	4.8		mg/Kg	1	3/13/2019 11:27:24 AM	43628
Surr: BFB	180	73.8-119	S	%Rec	1	3/13/2019 11:27:24 AM	43628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/13/2019 11:27:24 AM	43628
Toluene	0.097	0.048		mg/Kg	1	3/13/2019 11:27:24 AM	43628
Ethylbenzene	0.17	0.048		mg/Kg	1	3/13/2019 11:27:24 AM	43628
Xylenes, Total	1.0	0.096		mg/Kg	1	3/13/2019 11:27:24 AM	43628
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	3/13/2019 11:27:24 AM	43628

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

Page 1 of 8

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1903512**

Date Reported: 3/19/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** L2-0.5**Project:** Corazon**Collection Date:** 3/7/2019 1:12:00 PM**Lab ID:** 1903512-002**Matrix:** SOIL**Received Date:** 3/12/2019 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	740	60		mg/Kg	20	3/18/2019 12:48:31 PM	43722
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	2400	96		mg/Kg	10	3/13/2019 9:55:45 AM	43633
Motor Oil Range Organics (MRO)	990	480		mg/Kg	10	3/13/2019 9:55:45 AM	43633
Surr: DNOP	0	70-130	S	%Rec	10	3/13/2019 9:55:45 AM	43633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	970	24		mg/Kg	5	3/13/2019 1:01:30 PM	43628
Surr: BFB	1480	73.8-119	S	%Rec	5	3/13/2019 1:01:30 PM	43628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	3/13/2019 1:01:30 PM	43628
Toluene	1.4	0.24		mg/Kg	5	3/13/2019 1:01:30 PM	43628
Ethylbenzene	3.9	0.24		mg/Kg	5	3/13/2019 1:01:30 PM	43628
Xylenes, Total	19	0.48		mg/Kg	5	3/13/2019 1:01:30 PM	43628
Surr: 4-Bromofluorobenzene	195	80-120	S	%Rec	5	3/13/2019 1:01:30 PM	43628

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	Page 2 of 8
	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 **1903512**

Date Reported: 3/19/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** L2-2**Project:** Corazon**Collection Date:** 3/7/2019 1:20:00 PM**Lab ID:** 1903512-003**Matrix:** SOIL**Received Date:** 3/12/2019 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	100	60		mg/Kg	20	3/18/2019 1:00:55 PM	43722
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	260	9.6		mg/Kg	1	3/13/2019 10:19:54 AM	43633
Motor Oil Range Organics (MRO)	340	48		mg/Kg	1	3/13/2019 10:19:54 AM	43633
Surr: DNOP	103	70-130		%Rec	1	3/13/2019 10:19:54 AM	43633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	16	4.7		mg/Kg	1	3/13/2019 5:19:56 PM	43628
Surr: BFB	224	73.8-119	S	%Rec	1	3/13/2019 5:19:56 PM	43628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/13/2019 5:19:56 PM	43628
Toluene	ND	0.047		mg/Kg	1	3/13/2019 5:19:56 PM	43628
Ethylbenzene	0.064	0.047		mg/Kg	1	3/13/2019 5:19:56 PM	43628
Xylenes, Total	0.35	0.094		mg/Kg	1	3/13/2019 5:19:56 PM	43628
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	3/13/2019 5:19:56 PM	43628

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

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Analytical Report

Lab Order 1903512

Date Reported: 3/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-0.5

Project: Corazon

Collection Date: 3/7/2019 1:24:00 PM

Lab ID: 1903512-004

Matrix: SOIL

Received Date: 3/12/2019 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	110	61		mg/Kg	20	3/18/2019 1:38:08 PM	43722
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	8600	92		mg/Kg	10	3/13/2019 11:12:54 AM	43633
Motor Oil Range Organics (MRO)	4500	460		mg/Kg	10	3/13/2019 11:12:54 AM	43633
Surr: DNOP	0	70-130	S	%Rec	10	3/13/2019 11:12:54 AM	43633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	170	5.0		mg/Kg	1	3/13/2019 6:06:44 PM	43628
Surr: BFB	1200	73.8-119	S	%Rec	1	3/13/2019 6:06:44 PM	43628
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.047	0.025		mg/Kg	1	3/13/2019 6:06:44 PM	43628
Toluene	0.65	0.050		mg/Kg	1	3/13/2019 6:06:44 PM	43628
Ethylbenzene	0.45	0.050		mg/Kg	1	3/13/2019 6:06:44 PM	43628
Xylenes, Total	2.5	0.10		mg/Kg	1	3/13/2019 6:06:44 PM	43628
Surr: 4-Bromofluorobenzene	183	80-120	S	%Rec	1	3/13/2019 6:06:44 PM	43628

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

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1903512

19-Mar-19

Client: Souder, Miller & Associates**Project:** Corazon

Sample ID: MB-43722	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 43722	RunNo: 58434								
Prep Date: 3/18/2019	Analysis Date: 3/18/2019	SeqNo: 1961725	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-43722	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 43722	RunNo: 58434								
Prep Date: 3/18/2019	Analysis Date: 3/18/2019	SeqNo: 1961726	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

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

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1903512

19-Mar-19

Client: Souder, Miller & Associates**Project:** Corazon

Sample ID: LCS-43633	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 43633	RunNo: 58331								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1956766 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	63.9	124			
Surr: DNOP	4.2		5.000		84.9	70	130			

Sample ID: MB-43633	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 43633	RunNo: 58331								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1956767 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	11		10.00		112	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

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1903512

19-Mar-19

Client: Souder, Miller & Associates**Project:** Corazon

Sample ID: MB-43628	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957352 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	980		1000		97.6	73.8	119			

Sample ID: LCS-43628	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957353 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	80.1	123			
Surr: BFB	1100		1000		109	73.8	119			

Sample ID: 1903512-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: L1-0.5	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957355 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	48	4.8	23.95	13.24	145	69.1	142			S
Surr: BFB	2100		957.9		214	73.8	119			S

Sample ID: 1903512-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: L1-0.5	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957356 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	4.8	24.02	13.24	117	69.1	142	14.9	20	
Surr: BFB	1800		960.6		186	73.8	119	0	0	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

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1903512

19-Mar-19

Client: Souder, Miller & Associates**Project:** Corazon

Sample ID: MB-43628	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957375 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		101	80	120			

Sample ID: LCS-43628	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957376 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	95.3	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.4	80	120			

Sample ID: 1903512-002AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: L2-0.5	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957380 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.12	0.9615	0	92.8	63.9	127			
Toluene	2.9	0.24	0.9615	1.401	158	69.9	131			S
Ethylbenzene	6.7	0.24	0.9615	3.935	293	71	132			S
Xylenes, Total	31	0.48	2.885	18.96	413	71.8	131			S
Surr: 4-Bromofluorobenzene	11		4.808		222	80	120			S

Sample ID: 1903512-002AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: L2-0.5	Batch ID: 43628	RunNo: 58349								
Prep Date: 3/12/2019	Analysis Date: 3/13/2019	SeqNo: 1957381 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.12	0.9515	0	98.6	63.9	127	4.96	20	
Toluene	2.0	0.24	0.9515	1.401	60.2	69.9	131	38.5	20	RS
Ethylbenzene	4.3	0.24	0.9515	3.935	43.0	71	132	43.3	20	RS
Xylenes, Total	19	0.48	2.854	18.96	-4.69	71.8	131	48.5	20	RS
Surr: 4-Bromofluorobenzene	8.1		4.757		170	80	120	0	0	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



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: 1903512

RcptNo: 1

Received By: Yazmine Garduno

3/12/2019 8:35:00 AM

Completed By: Erin Melendrez

3/12/2019 9:36:06 AM

Reviewed By: DAD 3/12/19

LB: YG 3/12/19

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:

(<2 or >12 unless noted)

Adjusted?

Checked by: YG 3/12/19

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Yes			
2	3.1	Good	Yes			



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

May 01, 2019

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

RE: Corazone

OrderNo.: 1904C14

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/25/2019 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 light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1904C14**

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** CS1**Project:** Corazone**Collection Date:** 4/22/2019 11:20:00 AM**Lab ID:** 1904C14-001**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	59		mg/Kg	20	4/28/2019 6:11:35 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/29/2019 9:02:52 AM	44557
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/29/2019 9:02:52 AM	44557
Surr: DNOP	98.1	70-130		%Rec	1	4/29/2019 9:02:52 AM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2019 3:16:51 AM	44536
Surr: BFB	86.4	73.8-119		%Rec	1	4/27/2019 3:16:51 AM	44536
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/27/2019 3:16:51 AM	44536
Toluene	ND	0.049		mg/Kg	1	4/27/2019 3:16:51 AM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2019 3:16:51 AM	44536
Xylenes, Total	ND	0.099		mg/Kg	1	4/27/2019 3:16:51 AM	44536
Surr: 4-Bromofluorobenzene	85.6	80-120		%Rec	1	4/27/2019 3:16:51 AM	44536

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1904C14**

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** SW1**Project:** Corazone**Collection Date:** 4/22/2019 11:24:00 AM**Lab ID:** 1904C14-002**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	110	60		mg/Kg	20	4/28/2019 6:24:00 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	1300	93		mg/Kg	10	4/29/2019 9:24:51 AM	44557
Motor Oil Range Organics (MRO)	1300	470		mg/Kg	10	4/29/2019 9:24:51 AM	44557
Surr: DNOP	0	70-130	S	%Rec	10	4/29/2019 9:24:51 AM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2019 4:03:45 AM	44536
Surr: BFB	85.3	73.8-119		%Rec	1	4/27/2019 4:03:45 AM	44536
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/27/2019 4:03:45 AM	44536
Toluene	ND	0.049		mg/Kg	1	4/27/2019 4:03:45 AM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2019 4:03:45 AM	44536
Xylenes, Total	ND	0.098		mg/Kg	1	4/27/2019 4:03:45 AM	44536
Surr: 4-Bromofluorobenzene	82.9	80-120		%Rec	1	4/27/2019 4:03:45 AM	44536

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1904C14

Date Reported: 5/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW2

Project: Corazone

Collection Date: 4/22/2019 11:30:00 AM

Lab ID: 1904C14-003

Matrix: SOIL

Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	4/30/2019 11:44:26 AM	44615
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	4/29/2019 3:25:41 PM	44557
Motor Oil Range Organics (MRO)	63	47		mg/Kg	1	4/29/2019 3:25:41 PM	44557
Surr: DNOP	105	70-130		%Rec	1	4/29/2019 3:25:41 PM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/27/2019 9:39:09 AM	44546
Surr: BFB	91.6	73.8-119		%Rec	1	4/27/2019 9:39:09 AM	44546
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/27/2019 9:39:09 AM	44546
Toluene	ND	0.050		mg/Kg	1	4/27/2019 9:39:09 AM	44546
Ethylbenzene	ND	0.050		mg/Kg	1	4/27/2019 9:39:09 AM	44546
Xylenes, Total	ND	0.10		mg/Kg	1	4/27/2019 9:39:09 AM	44546
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	1	4/27/2019 9:39:09 AM	44546

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1904C14**

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** SW3**Project:** Corazone**Collection Date:** 4/23/2019 4:30:00 PM**Lab ID:** 1904C14-004**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	4/30/2019 11:56:51 AM	44615
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/29/2019 10:08:58 AM	44557
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/29/2019 10:08:58 AM	44557
Surr: DNOP	98.6	70-130		%Rec	1	4/29/2019 10:08:58 AM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/27/2019 10:49:24 AM	44546
Surr: BFB	93.1	73.8-119		%Rec	1	4/27/2019 10:49:24 AM	44546
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/27/2019 10:49:24 AM	44546
Toluene	ND	0.050		mg/Kg	1	4/27/2019 10:49:24 AM	44546
Ethylbenzene	ND	0.050		mg/Kg	1	4/27/2019 10:49:24 AM	44546
Xylenes, Total	ND	0.10		mg/Kg	1	4/27/2019 10:49:24 AM	44546
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	4/27/2019 10:49:24 AM	44546

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1904C14**

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** SW4**Project:** Corazone**Collection Date:** 4/23/2019 4:35:00 PM**Lab ID:** 1904C14-005**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	110	60		mg/Kg	20	4/30/2019 12:58:53 PM	44615
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	2700	95		mg/Kg	10	4/29/2019 10:31:06 AM	44557
Motor Oil Range Organics (MRO)	2100	480		mg/Kg	10	4/29/2019 10:31:06 AM	44557
Surr: DNOP	0	70-130	S	%Rec	10	4/29/2019 10:31:06 AM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2019 11:12:44 AM	44546
Surr: BFB	92.1	73.8-119		%Rec	1	4/27/2019 11:12:44 AM	44546
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/27/2019 11:12:44 AM	44546
Toluene	ND	0.049		mg/Kg	1	4/27/2019 11:12:44 AM	44546
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2019 11:12:44 AM	44546
Xylenes, Total	ND	0.098		mg/Kg	1	4/27/2019 11:12:44 AM	44546
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	4/27/2019 11:12:44 AM	44546

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1904C14

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** CS2**Project:** Corazone**Collection Date:** 4/23/2019 4:40:00 PM**Lab ID:** 1904C14-006**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	4/30/2019 1:11:17 PM	44615
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	99	9.3		mg/Kg	1	4/29/2019 11:15:20 AM	44557
Motor Oil Range Organics (MRO)	190	47		mg/Kg	1	4/29/2019 11:15:20 AM	44557
Surr: DNOP	103	70-130		%Rec	1	4/29/2019 11:15:20 AM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2019 11:36:16 AM	44546
Surr: BFB	92.2	73.8-119		%Rec	1	4/27/2019 11:36:16 AM	44546
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/27/2019 11:36:16 AM	44546
Toluene	ND	0.048		mg/Kg	1	4/27/2019 11:36:16 AM	44546
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2019 11:36:16 AM	44546
Xylenes, Total	ND	0.097		mg/Kg	1	4/27/2019 11:36:16 AM	44546
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	4/27/2019 11:36:16 AM	44546

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1904C14**

Date Reported: 5/1/2019

CLIENT: Souder, Miller & Associates**Client Sample ID:** CS3**Project:** Corazone**Collection Date:** 4/23/2019 4:50:00 AM**Lab ID:** 1904C14-007**Matrix:** SOIL**Received Date:** 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	60		mg/Kg	20	4/30/2019 1:23:42 PM	44615
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	43	9.8		mg/Kg	1	4/29/2019 4:10:19 PM	44557
Motor Oil Range Organics (MRO)	80	49		mg/Kg	1	4/29/2019 4:10:19 PM	44557
Surr: DNOP	104	70-130		%Rec	1	4/29/2019 4:10:19 PM	44557
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2019 11:59:47 AM	44546
Surr: BFB	92.7	73.8-119		%Rec	1	4/27/2019 11:59:47 AM	44546
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/27/2019 11:59:47 AM	44546
Toluene	ND	0.049		mg/Kg	1	4/27/2019 11:59:47 AM	44546
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2019 11:59:47 AM	44546
Xylenes, Total	ND	0.098		mg/Kg	1	4/27/2019 11:59:47 AM	44546
Surr: 4-Bromofluorobenzene	90.4	80-120		%Rec	1	4/27/2019 11:59:47 AM	44546

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 Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1904C14

01-May-19

Client: Souder, Miller & Associates**Project:** Corazone

Sample ID: MB-44582	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 44582	RunNo: 59494								
Prep Date: 4/28/2019	Analysis Date: 4/28/2019	SeqNo: 2004472	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-44582	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 44582	RunNo: 59494								
Prep Date: 4/28/2019	Analysis Date: 4/28/2019	SeqNo: 2004473	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Sample ID: MB-44615	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 44615	RunNo: 59543								
Prep Date: 4/30/2019	Analysis Date: 4/30/2019	SeqNo: 2006256	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-44615	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 44615	RunNo: 59543								
Prep Date: 4/30/2019	Analysis Date: 4/30/2019	SeqNo: 2006257	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 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 Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1904C14

01-May-19

Client: Souder, Miller & Associates**Project:** Corazone

Sample ID: LCS-44557	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 44557		RunNo: 59489							
Prep Date: 4/26/2019	Analysis Date: 4/29/2019		SeqNo: 2004308		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	63.9	124			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID: MB-44557	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 44557		RunNo: 59489							
Prep Date: 4/26/2019	Analysis Date: 4/29/2019		SeqNo: 2004309		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	11		10.00		115	70	130			

Sample ID: MB-44585	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 44585		RunNo: 59489							
Prep Date: 4/29/2019	Analysis Date: 4/30/2019		SeqNo: 2005592		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		126	70	130			

Sample ID: LCS-44585	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 44585		RunNo: 59489							
Prep Date: 4/29/2019	Analysis Date: 4/30/2019		SeqNo: 2005598		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		111	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1904C14

01-May-19

Client: Souder, Miller & Associates

Project: Corazone

Sample ID: MB-44536	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 44536	RunNo: 59464								
Prep Date: 4/25/2019	Analysis Date: 4/26/2019	SeqNo: 2003356 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

870

1000

86.9

73.8

119

Sample ID: LCS-44536	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 44536	RunNo: 59464								
Prep Date: 4/25/2019	Analysis Date: 4/26/2019	SeqNo: 2003357 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)

24

5.0

25.00

0

95.1

80.1

123

Surr: BFB

1000

1000

103

73.8

119

Sample ID: MB-44546	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003610 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

890

1000

89.5

73.8

119

Sample ID: LCS-44546	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003611 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

99.8

80.1

123

Surr: BFB

1000

1000

103

73.8

119

Sample ID: 1904C14-003AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SW2	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003616 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)

25

5.0

24.90

0

100

69.1

142

Surr: BFB

1000

996.0

103

73.8

119

Sample ID: 1904C14-003AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SW2	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003617 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1904C14****01-May-19****Client:** Souder, Miller & Associates**Project:** Corazone

Sample ID: 1904C14-003AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SW2		Batch ID: 44546		RunNo: 59477						
Prep Date: 4/25/2019		Analysis Date: 4/27/2019		SeqNo: 2003617		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.95	0	94.8	69.1	142	5.30	20	
Surr: BFB	1000		998.0		104	73.8	119	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 Limit
S	% Recovery outside of range due to dilution or matrix		

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904C14

01-May-19

Client: Souder, Miller & Associates

Project: Corazone

Sample ID: MB-44536	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 44536	RunNo: 59464								
Prep Date: 4/25/2019	Analysis Date: 4/26/2019	SeqNo: 2003389	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	0.86		1.000		86.2	80	120			

Sample ID: LCS-44536	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 44536	RunNo: 59464								
Prep Date: 4/25/2019	Analysis Date: 4/26/2019	SeqNo: 2003390	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.3	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

Sample ID: MB-44546	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003656	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	0.89		1.000		88.7	80	120			

Sample ID: LCS-44546	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 44546	RunNo: 59477								
Prep Date: 4/25/2019	Analysis Date: 4/27/2019	SeqNo: 2003657	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.2	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.8	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.3	80	120			

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 Limit

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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: 1904C14

RcptNo: 1

Received By: Erin Melendrez

4/25/2019 9:20:00 AM

Completed By: Leah Baca

4/25/2019 11:07:06 AM

Reviewed By: ENM

Labeled by DAD 4/25/19

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:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 4/25/19

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	4.9	Good	Yes			

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

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

CONDITIONS

Action 206603

CONDITIONS

Operator: ENTERPRISE PRODUCTS OPERATING, LLC P.O. BOX 4324 HOUSTON, TX 77210	OGRID: 374092
	Action Number: 206603
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Deferral request approved. The deferral request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	4/14/2023
amaxwell	Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations or equipment has been moved, which ever comes first.	4/14/2023