Jason Michelson
Project Manager

Chevron Environmental Management Company
1500 Louisiana Street, #38116
Houston, Texas 77002
Work: 832-854-5601
Cell: 281-660-8564
jmichelson@chevron.com

May 30, 2019

New Mexico Oil Conservation Division, District II
811 S. First St
Artesia, NM 88210

Re: Candelario 24 #1 SWD Battery
Site Deferral Request
NMOCD Case No. 2RP-4201
Eddy County, New Mexico

Dear whom it concerns,

Please find enclosed for your files, copies of the following report:

- Candelario 24 #1 SWD Battery – May 30, 2019 Site Deferral Letter
- Candelario 24 #1 Remediation Closure Report (Sounder Miller and Associates (SMA) Report)

The Report was prepared by SMA on behalf of Rockcliff Operating New Mexico LLC and previously submitted to the New Mexico Oil Conservation District (NMOCD) on September 27, 2018. Chevron acquired the lease for this well location in October 2018.

The Site Deferral Request was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC). A review of NMOCD online records did not identify an NMOCD response to the SMA report. The referenced well and facilities are slated for abandonment. CEMC is requesting written NMOCD approval for deferral of additional site remediation activities until the well is plugged and associated facilities are abandoned.

Please do not hesitate to call Rebecca Andresen with Arcadis at 206-726-4717 or myself at 832-854-5601, should you have any questions.

Sincerely,

Jason Michelson

Jason Michelson

Encl. Candelario 24 #1 SWD - Site Deferral Letter
Candelario 24 #1 Remediation Closure Report (SMA Report)

C.C. Brett Krehbiel, Arcadis

Mr. Rob Hamlet
New Mexico Oil Conservation Division – District II
Environmental Specialist
811 S. First St.
Artesia, NM 88210

Arcadis U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720 344 3500
Fax 720 344 3535
www.arcadis.com

ENVIRONMENT

Subject:
Site Deferral Request

Candelario 24 #1 SWD Battery

NMOCD Case No. 2RP-4201

Eddy County, New Mexico

Date:
May 30, 2019

Contact:
Rebecca Andresen

Phone:
206-726-4717

Email:
Rebecca.Andresen@arcadis.com

Our ref:
B0049810.0000

Dear Mr. Hamlet:

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) prepared this Site Deferral Request (Request) for the Candelario 24 #1 well, API No. 30-015-26536, located in Eddy County, New Mexico. Rockcliff Operating New Mexico LLC (Rockcliff), the previous owner of this well, notified the New Mexico Oil Conservation District (NMOCD) of a release on May 9, 2017 (2RP-4201). On behalf of Rockcliff , Sounder Miller and Associates (SMA) submitted a report documenting initial cleanup activities, dated September 27, 2018 (Attachment 1). The purpose of this request is to provide a brief summary of the SMA report, and to request written confirmation of deferral from the NMOCD.

SITE DESCRIPTION AND BACKGROUND

The following Site description and background section provides an overview of the Site location and description, as well as the investigation that was conducted on May 9, 2017 through September 15, 2018.

The Site is located approximately two (2) miles east of Loving, New Mexico. The site is in Unit D, Section 24, Township 23S, Range 28E, Eddy County, New Mexico, on private land.

On May 9, 2017, a release was discovered at the Site due to equipment failure of a one-inch ball valve on the triplex pump. The produced water was contained inside the earthen firewall. Initial response included Rockliff personal shutting off

the triplex pump to replace the one-inch valve and coordinate with a vacuum truck to remove standing fluids. Approximately 25 bbls were recovered and disposed of at an NMOCD approved facility. Rockcliff coordinated and submitted the initial C-141 form with Ms. Weaver at NMOCD.

On March 28, 2018, SMA collected two (2) soil borings within the bermed tank battery. A total of seven (7) samples were collected for laboratory analysis for total chloride using EPA Method 300.0. A total of five (5) soil samples were collected for 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.

Results of the soil investigation indicated that chloride impacts extend to between 5 and 14 feet deep. Impacted soil was excavated and removed to a depth of 4 feet below ground surface (bgs). After the initial excavation, Rockcliff constructed a new SWD facility between August 13, 17, and 23, 2018. The new tank battery is located over the former site and encompasses a smaller area with a liner.

Composite sidewall samples were collected by SMA from the boundaries of the old facility after the new facility was constructed. Confirmation samples were comprised of five-point composites of the walls (SW1 – SW10). The laboratory results for the confirmation samples indicate that impacts extend beyond the excavation (and former tank battery footprint). The new tank battery had been completed in the area requiring additional remediation, the SMA report requested deferral of further remediation until the well is no longer in use and the facilities are removed. A written response from the NMOCD was not found in available files for this site.

This letter is to renew the request for a deferral until the wells and facility are abandoned. Once the Site has been abandoned, further investigations will be completed. SMA's closure report is included in Attachment 1.

If you have any questions or comments, please contact Rebecca Andresen at 206.726.4717 or by email at rebecca.andresen@arcadis.com.

Sincerely,

Arcadis U.S., Inc.

Rebecca Andresen
Vice President

Copies:
Jason Michelson, Chevron/ CEMC
Brett Krehbiel, Arcadis

Enclosures:

Attachments

1 Souder, Miller & Associates Remediation Closure Report

September 27, 2018

#5E26934-BG5

NMOCD District 2
Mike Bratcher
811 S. First St.
Artesia, NM 88210

SUBJECT: Remediation Closure Report for the Candelario #1 SWD Release (2RP-4201), Eddy County, New Mexico

Dear Mr. Bratcher:

On behalf of Rockcliff Operating New Mexico LLC (Rockcliff) , 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 Candelario #1 SWD site. The site is in Unit D, Section 24, Township 23S, Range 28E, Eddy 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	Candelario #1 SWD	Company	Rockcliff Operating New Mexico LLC
API Number	30-015-26536	Location	32.292740 -104.047156
Incident Number	2RP-4201		
Estimated Date of Release	May 9, 2017	Date Reported to NMOCD	May 9, 2017
Land Owner	Private (Mosaic Potash)	Reported To	NMOCD District II
Source of Release	Equipment Failure (Ball Valve washed out on Triplex Pump)		
Released Volume	30 bbls	Released Material	Produced Water
Recovered Volume	25 bbls	Net Release	5 bbls
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	3/28/2018, 8/13/2018, 8/17/2018, 8/23/2018, 9/15/2018		

1.0 Background

On May 9, 2017, a release was discovered at the Candelario #1 SWD site due to equipment failure. The 1-inch ball valve on the triplex pump washed out, causing the pump to fail and approximately 30 bbl of produced water to release within the earthen firewall. Initial response activities were conducted by Rockcliff, and included source elimination with the installation of a new valve and containment and site stabilization activities via a vacuum truck to remove standing fluids. These activities recovered

approximately 25 barrels of fluid which was hauled to and disposed of at an NMOCD approved facility. Figure 1 illustrates the site vicinity and wellhead protection area, Figure 2 illustrates surface water and other ranking criteria within a 300-foot radius in the vicinity, and Figure 3 illustrates the site and sample locations. The initial and final C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Candelario #1 SWD is located approximately two (2) miles east of Loving, 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 29 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 9/12/2018). The nearest surface water is the Pecos River located approximately 1340 feet to the northeast of the location.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs. 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 28, 2018, SMA personnel arrived on site in response to the release associated with Candelario #1 SWD. SMA performed site delineation activities by collecting soil samples from two (2) soil borings within the bermed tank battery.

Soil boring locations (B1 and B2) were investigated using a hollow-stem auger drill rig, to depths of 19 and 24 feet bgs. A minimum of three samples were collected at each sampling location. A total of 7 samples were collected for laboratory analysis for total chloride using EPA Method 300.0; and five samples were collected for laboratory analysis of 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 and field as well as identifying any variances from the typical specification of two samples per boring. Locations of the soil borings 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).

Visual observations indicated that the impacted area was within the footprint of the tank battery (an area approx. 120 by 80). Results of the soil investigation indicated that chloride impacts extended to between 5 and 14 feet deep.

SMA and Rockcliff determined that, based upon the results, an effective remediation and source removal would be the re-building of the battery containment, which included excavation to 4 feet bgs and removal of contaminated soil (including the earthen berms) in the impacted area, as well as the placement of a liner. A downsized and upgraded containment was constructed within the former tank battery (Figure 3). Photos are included in Appendix C.

4.0 Soil Remediation Summary

SMA returned to the site periodically to oversee the excavation of contaminated soil and construction of the new facility (August 13, 17 and 23, 2018). After the construction of the new containment was

completed and all impacted materials from within the previous containment to a depth of four feet was disposed of, composite sidewall samples were collected from the boundaries of the old facility. NMOCD was notified on September 13, 2018 that closure samples were expected to be collected in two (2) business days.

The confirmation samples were collected from within the excavation in accordance with the sampling protocol included in Appendix C. Confirmation samples were comprised of five-point composites of the walls (SW1 – SW10). However, upon receipt of the laboratory results for the confirmation samples, it appears that impacts extend beyond the excavation (and former tank battery footprint) extents. SMA believes these impacts could be due to a historic release not associated with this RP. Further, SMA believes that the impacts of the current release have been effectively remediated with the placement of an impregnated bentonite liner across the former tank battery area, and a new tank battery with a polyurethane liner in the smaller footprint. This report serves as documentation of the impacted material that was removed and disposed of during the course of construction and of the placement of a liner over the previous and current battery containment areas.

To address the historic release impacts, SMA recommends further lateral remediation of the previous facility's boundary occur during final reclamation activities at the facilities.

Figure 3 shows the extent of the excavation, new and previous facility areas and sample locations. All 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 name of landfill, near, 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 Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

M. Sanjari

Shawna Chubbuck

Melodie R. Sanjari
Staff Scientist

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Surface Water Map
Figure 3: Site and Sample Location Map

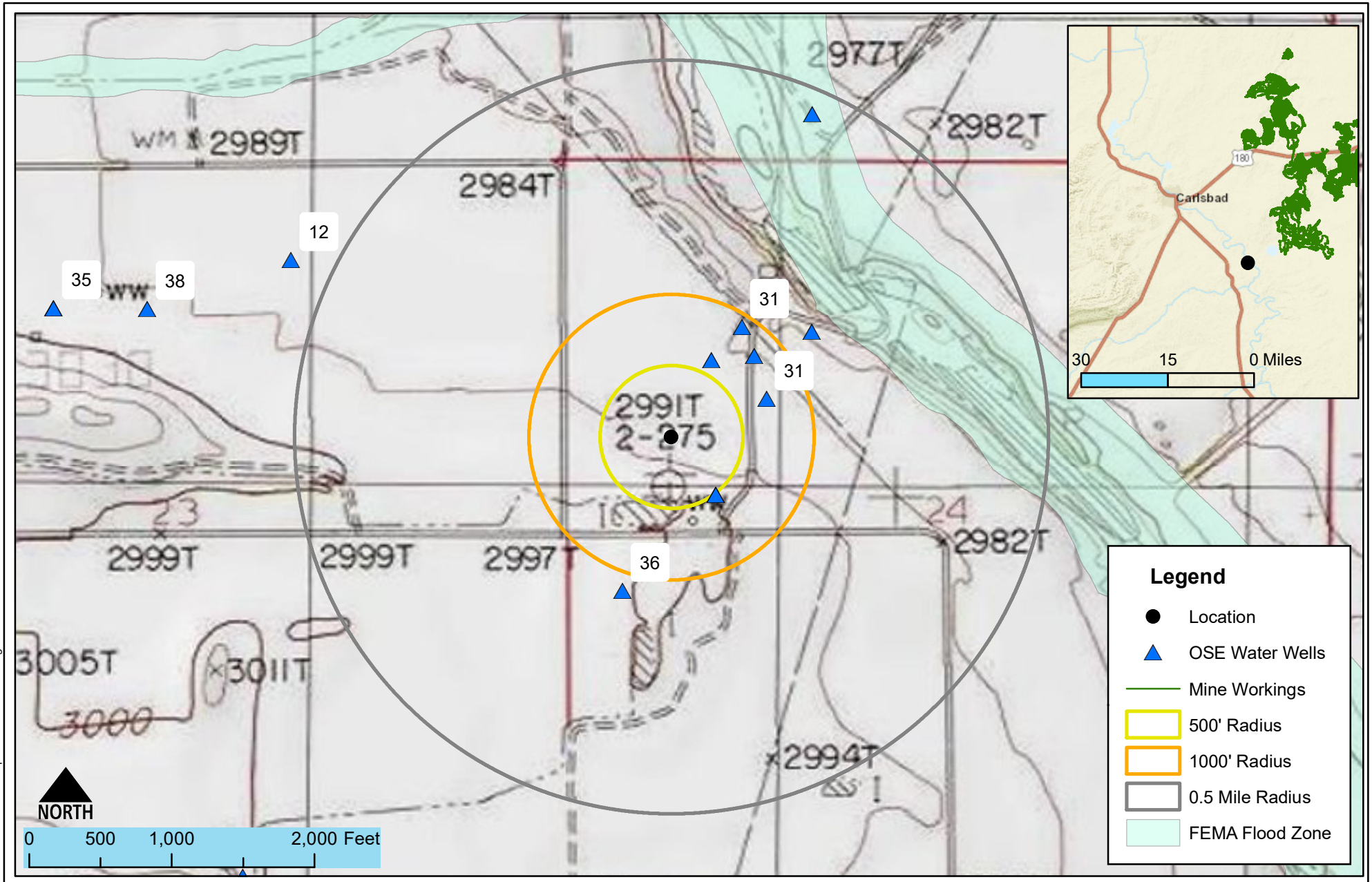
Tables:

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 and Photo Log
Appendix D: Laboratory Analytical Reports

FIGURES



Site Vicinity & Wellhead Protection Map
Candelario #1 SWD - Rockcliff Operating New Mexico LLC
Sec. 24, T23S, R28E Eddy County, New Mexico

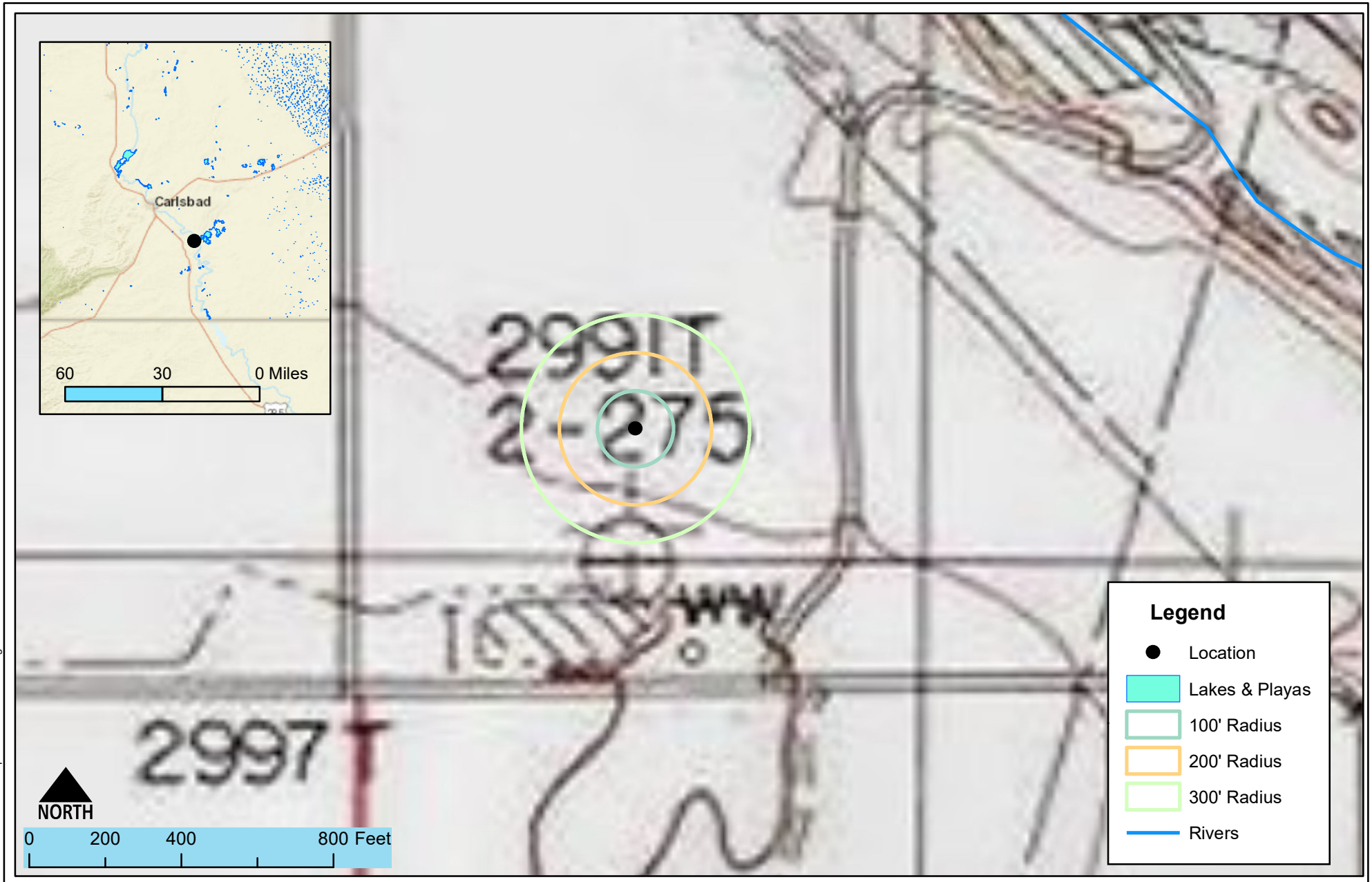
Figure 1

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Melodie Sanjari
Checked
Approved

201 South Halagueña Street
Carlsbad, New Mexico 88221
(575) 689-7040
www.soudermiller.com
Serving the Southwest & Rocky Mountains

Document: C:\Users\mrs.SMA\Documents\GISdata\Maps\Candelario SWD Figure 1.mxd
Date Saved: 9/19/2018



Surface Water Map
Candelario #1 SWD - Rockcliff Operating New Mexico LLC
Sec. 24, T23S, R28E Eddy County, New Mexico

Figure 2

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Melodie Sanjari
Checked
Approved

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Carlsbad, New Mexico 88221
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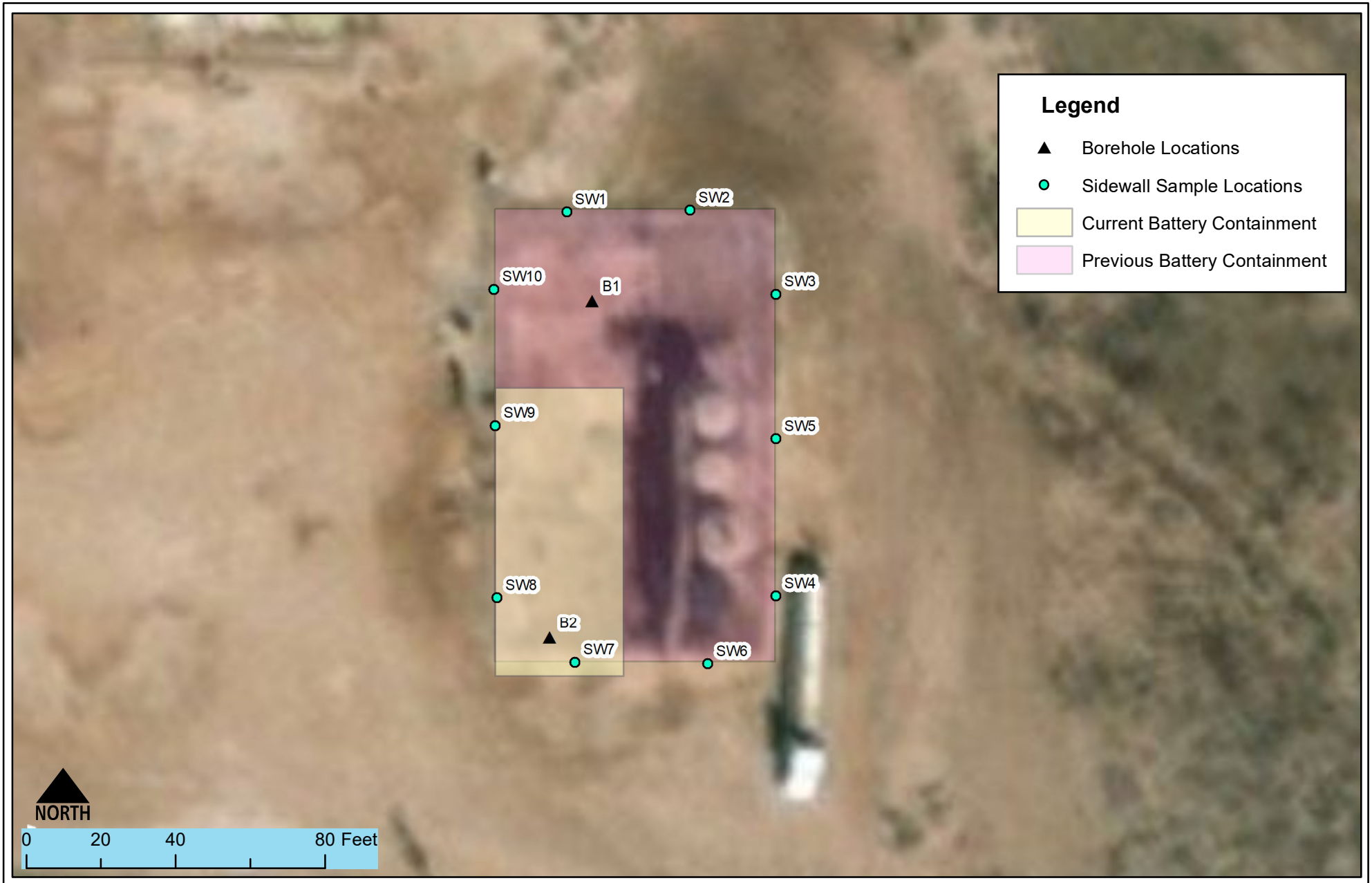
Document: C:\Users\mrs.SMA\Documents\GISdata\Maps\Candelario SWD Figure 2.mxd
Date Saved: 9/19/2018



Site & Sample Location Map
Candelario #1 SWD - Rockcliff Operating New Mexico LLC
Sec. 24, T23S, R28E Eddy County, New Mexico

Figure 3

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Melodie Sanjari
Checked
Approved

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Document: C:\Users\mrs.SMA\Documents\GISdata\Maps\Candelario SWD Figure 3.mxd
Date Saved: 9/26/2018

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	29	OSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	1342, 5 OSE Wells	USGS 7.5 Quad., Refer to Append. B
Horizontal Distance to Nearest Significant Watercourse (ft)	1342	Pecos River

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	x	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?	yes					
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

Sample ID	Sample Date	Depth (feet bgs)	Action Taken/ Proposed	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	GRO + DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10			1000		100	600
B1	3/28/2018	5	In-Situ	<0.095	<0.024	<4.8	<9.6	<14.4	<48	<62.4	**1900**
	3/28/2018	9	In-Situ	<0.098	<0.025	<4.9	<10	<14.9	<50	<64.9	450
	3/28/2018	14	In-Situ	--	--	--	--	--	--	--	130
	3/28/2018	19	In-Situ	<0.092	<0.023	<4.6	<9.9	<14.5	<50	<64.5	300
B2	3/28/2018	surface	excavated	--	--	--	--	--	--	--	**7600**
	3/28/2018	14	In-Situ	<0.096	<0.024	<4.8	<10	<14.8	<50	<64.8	**920**
	3/28/2018	24	In-Situ	<0.096	<0.024	<4.8	<9.7	<14.5	<48	<62.5	180
SW1	9/15/2018	sidewall	In-Situ	--	--	--	--	--	--	--	600
SW2	9/15/2018		Deferral	--	--	--	--	--	--	--	**860**
SW3	9/15/2018		Deferral	--	--	--	--	--	--	--	**870**
SW4	9/15/2018		In-Situ	--	--	--	--	--	--	--	630
SW5	9/15/2018		Deferral	--	--	--	--	--	--	--	**670**
SW6	9/15/2018		Deferral	--	--	--	--	--	--	--	**1300**
SW7	9/15/2018		Deferral	--	--	--	--	--	--	--	**3300**
SW8	9/15/2018		Deferral	--	--	--	--	--	--	--	**1900**
SW9	9/15/2018		Deferral	--	--	--	--	--	--	--	**1600**
SW10	9/15/2018		Deferral	--	--	--	--	--	--	--	**2900**

-- Not Analyzed

APPENDIX A
FORM C141

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 09 2017
RECEIVED

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 April 3, 2017

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

Release Notification and Corrective Action

nAB1713157779

OPERATOR

☑ Initial Report ☐ Final Report

Name of Company Goodnight Energy 371115	Contact Jonathon Solis
Address 1301 McKinney Suite 2100 Houston Tx 77010	Telephone No. 575.317.1198
Facility Name CAMILLA SWD #1 Salt battery	Facility Type SWD

Surface Owner Mosaic Potash	Mineral Owner Mosaic Potash	API No. 30-015-26536

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	24	23S	28E		1980'		660'	EDDY

Latitude 32.292795 Longitude -104.057128 NAD83

NATURE OF RELEASE

Type of Release PW	Volume of Release 30	Volume Recovered 25
Source of Release Tank & Ave off	Date and Hour of Occurrence 1000	Date and Hour of Discovery 1000
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? May 9, 2017 Crystal Weaver	May 9, 2017
By Whom? Jonathon Solis	Date and Hour 1300 9 May 2017	
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
1" Ball valve washed out on 4"-flex, shut pump off

Describe Area Affected and Cleanup Action Taken.*
spill was contained inside firewall, vac-truck came to location to suck PW from ground & hauled to disposal. Install new 1" valve & plug changed out

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Jonathon Solis	Approved by Environmental Specialist: Crystal Weaver
Title: Field Foreman	Approval Date: 5/10/17 Expiration Date: N/A
E-mail Address: jonathon.solis@goodnightenergy.com	Conditions of Approval: See attached Attached ☒
Date: 9 May 2017 Phone: 575.317.1198	

* Attach Additional Sheets If Necessary

2RP-4201

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **5/9/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number **2RP-4201** has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 6/9/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00500	CUB	ED	4	3	1	24	23S	28E	589811	3573176*	143	130		
C 00868	CUB	ED	4	3	1	24	23S	28E	589811	3573176*	143	190		
C 03965 POD4	CUB	ED		1	4	24	23S	28E	589918	3573381	224	40	31	9
C 03965 POD5	CUB	ED	4	1	1	24	23S	28E	589864	3573534	292	35	31	4
C 03146	C	ED	1	1	3	24	23S	28E	589613	3572970*	329	82	36	46
C 01102	C	ED		1	2	23	23S	28E	588901	3573672*	902	100	12	88

Average Depth to Water: **27 feet**

Minimum Depth: **12 feet**

Maximum Depth: **36 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 589715.9 **Northing (Y):** 3573283 **Radius:** 1000

***UTM location was derived from PLSS - see Help**

APPENDIX C
SAMPLING PROTOCOL & PHOTO LOG

Sampling Protocol

Representatives from SMA chose the Judgmental Sampling Method as described in EPA's Final Sampling Guidance for SW-846, 2002 to adequately quantify contaminant concentrations on the Candelario SWD #1 Location. The utility of this particular method functions on the sufficient knowledge of the contaminant, which we possess. This design is also useful when identifying the composition of a release, which we have documented. In addition, this sampling design was chosen for this project because of the locations uniform soil type, the release being contained within a bermed area thus reducing the possibility of migration, and the several operational considerations (such as the liner within the battery and the construction of a new facility) that precluded the implementation of a different statistical design.

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 fourteen (14) 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 currier 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.

Open excavation facing North on the West side of the battery

Open excavation of the east side of the battery, facing north.

Northside of battery, open excavation facing east

New containment installation and remainder of nortwest excavation, facing south

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

September 24, 2018

Austin Weyant

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

RE: Candelario SWD OrderNo.: 1809997

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/18/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Lab Order: 1809997
Project: Candelario SWD

Lab ID: 1809997-001 **Collection Date:** 9/15/2018 9:30:00 AM
Client Sample ID: SW1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	600	30		mg/Kg	20	9/19/2018 3:40:41 PM	40442

Lab ID: 1809997-002 **Collection Date:** 9/15/2018 9:50:00 AM
Client Sample ID: SW2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	860	30		mg/Kg	20	9/19/2018 3:53:05 PM	40442

Lab ID: 1809997-003 **Collection Date:** 9/15/2018 10:37:00 AM
Client Sample ID: SW3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	870	30		mg/Kg	20	9/19/2018 4:30:18 PM	40442

Lab ID: 1809997-004 **Collection Date:** 9/15/2018 10:15:00 AM
Client Sample ID: SW4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	630	30		mg/Kg	20	9/19/2018 4:42:42 PM	40442

Lab ID: 1809997-005 **Collection Date:** 9/15/2018 11:01:00 AM
Client Sample ID: SW5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	670	30		mg/Kg	20	9/19/2018 4:55:06 PM	40442

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 Quanitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Candelario SWD
Lab Order: 1809997

Lab ID: 1809997-006 **Collection Date:** 9/15/2018 11:50:00 AM
Client Sample ID: SW6 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1300	75		mg/Kg	50	9/20/2018 4:39:19 PM	40442

Lab ID: 1809997-007 **Collection Date:** 9/15/2018 11:26:00 AM
Client Sample ID: SW7 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	3300	150		mg/Kg	100	9/20/2018 3:37:17 PM	40442

Lab ID: 1809997-008 **Collection Date:** 9/15/2018 11:40:00 AM
Client Sample ID: SW8 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1900	75		mg/Kg	50	9/20/2018 4:51:43 PM	40442

Lab ID: 1809997-009 **Collection Date:** 9/15/2018 12:20:00 PM
Client Sample ID: SW9 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1600	75		mg/Kg	50	9/20/2018 5:04:07 PM	40463

Lab ID: 1809997-010 **Collection Date:** 9/15/2018 12:45:00 PM
Client Sample ID: SW10 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2900	150		mg/Kg	100	9/20/2018 4:14:30 PM	40463

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 Quanitative Limit	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1809997**

24-Sep-18

Client: Souder, Miller & Associates

Project: Candelario SWD

Sample ID	**MB-40442**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**40442**		RunNo:	**54284**				
Prep Date:	**9/19/2018**	Analysis Date:	**9/19/2018**		SeqNo:	**1796190**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40442**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**40442**		RunNo:	**54284**				
Prep Date:	**9/19/2018**	Analysis Date:	**9/19/2018**		SeqNo:	**1796191**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Sample ID	**MB-40463**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**40463**		RunNo:	**54284**				
Prep Date:	**9/19/2018**	Analysis Date:	**9/19/2018**		SeqNo:	**1796243**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40463**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**40463**		RunNo:	**54284**				
Prep Date:	**9/19/2018**	Analysis Date:	**9/19/2018**		SeqNo:	**1796244**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	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 Quanitative 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

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: **1809997** RcptNo: **1**

Received By: **Jazzmine Burkhead** **9/18/2018 8:40:00 AM**

Completed By: **Ashley Gallegos** **9/18/2018 9:28:33 AM**

Reviewed By: JO 09/18/18

Labeled by: ENM 9/18/18

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

ENM 9/18/18

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 2 day

Project Name: Candelario SWD

Project #:

Project Manager: Austin Weyant

Sampler: MRS.

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.9 -1.0(F)=1.9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1809997	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
9/15/18	9:30	Soil	SW1	4oz.		-001								✓								
	9:50		SW2			-002								✓								
	10:37		SW3			-003								✓								
	10:15		SW4			-004								✓								
	11:01		SW5			-005								✓								
	11:50		SW6			-006								✓								
	11:26		SW7			-007								✓								
	11:40		SW8			-008								✓								
	12:20		SW9			-009								✓								
	12:45		SW10			-010								✓								

Date	Time	Relinquished by:	Received by:	Date	Time
9/17/18		M Lanjani		9/17/18	1402
9/17/18	1900			09/18/18	08:40

Remarks: Rockcliff. Courier

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

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

April 24, 2018

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

RE: Candelario 28 1 OrderNo.: 1804320

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/5/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1804320**
Date Reported: **4/24/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: B1-5
Project: Candelario 28 1
Collection Date: 3/28/2018 3:30:00 PM
Lab ID: 1804320-001
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1900	75		mg/Kg	50	4/24/2018 1:32:26 PM	37741
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/10/2018 7:22:28 PM	37482
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2018 7:22:28 PM	37482
Surr: DNOP	87.2	70-130		%Rec	1	4/10/2018 7:22:28 PM	37482
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2018 2:05:41 PM	37472
Surr: BFB	95.7	15-316		%Rec	1	4/9/2018 2:05:41 PM	37472
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/9/2018 2:05:41 PM	37472
Toluene	ND	0.048		mg/Kg	1	4/9/2018 2:05:41 PM	37472
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2018 2:05:41 PM	37472
Xylenes, Total	ND	0.095		mg/Kg	1	4/9/2018 2:05:41 PM	37472
Surr: 4-Bromofluorobenzene	90.0	80-120		%Rec	1	4/9/2018 2:05:41 PM	37472

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B1-9
Project: Candelario 28 1
Collection Date: 3/28/2018 3:45:00 PM
Lab ID: 1804320-002
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	450	30		mg/Kg	20	4/10/2018 1:29:19 PM	37510
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/10/2018 7:44:43 PM	37482
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/10/2018 7:44:43 PM	37482
Surr: DNOP	88.9	70-130		%Rec	1	4/10/2018 7:44:43 PM	37482
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/9/2018 3:15:48 PM	37472
Surr: BFB	96.4	15-316		%Rec	1	4/9/2018 3:15:48 PM	37472
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/9/2018 3:15:48 PM	37472
Toluene	ND	0.049		mg/Kg	1	4/9/2018 3:15:48 PM	37472
Ethylbenzene	ND	0.049		mg/Kg	1	4/9/2018 3:15:48 PM	37472
Xylenes, Total	ND	0.098		mg/Kg	1	4/9/2018 3:15:48 PM	37472
Surr: 4-Bromofluorobenzene	88.5	80-120		%Rec	1	4/9/2018 3:15:48 PM	37472

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B1-14
Project: Candelario 28 1
Collection Date: 3/28/2018 4:25:00 PM
Lab ID: 1804320-003
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	130	30		mg/Kg	20	4/10/2018 1:41:44 PM	37510

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B1-19
Project: Candelario 28 1
Collection Date: 3/28/2018 4:51:00 PM
Lab ID: 1804320-004
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	300	30		mg/Kg	20	4/10/2018 1:54:09 PM	37510
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/10/2018 8:07:04 PM	37482
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/10/2018 8:07:04 PM	37482
Surr: DNOP	98.5	70-130		%Rec	1	4/10/2018 8:07:04 PM	37482
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/9/2018 4:25:54 PM	37472
Surr: BFB	90.7	15-316		%Rec	1	4/9/2018 4:25:54 PM	37472
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/9/2018 4:25:54 PM	37472
Toluene	ND	0.046		mg/Kg	1	4/9/2018 4:25:54 PM	37472
Ethylbenzene	ND	0.046		mg/Kg	1	4/9/2018 4:25:54 PM	37472
Xylenes, Total	ND	0.092		mg/Kg	1	4/9/2018 4:25:54 PM	37472
Surr: 4-Bromofluorobenzene	83.8	80-120		%Rec	1	4/9/2018 4:25:54 PM	37472

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B2-0
Project: Candelario 28 1
Collection Date: 3/28/2018 5:40:00 PM
Lab ID: 1804320-005
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	7600	300		mg/Kg	200	4/12/2018 4:22:27 PM	37510

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B2-14
Project: Candelario 28 1
Collection Date: 3/28/2018 6:00:00 PM
Lab ID: 1804320-006
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	920	30		mg/Kg	20	4/10/2018 2:18:57 PM	37510
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/10/2018 8:29:20 PM	37482
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/10/2018 8:29:20 PM	37482
Surr: DNOP	90.9	70-130		%Rec	1	4/10/2018 8:29:20 PM	37482
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2018 4:49:08 PM	37472
Surr: BFB	93.9	15-316		%Rec	1	4/9/2018 4:49:08 PM	37472
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/9/2018 4:49:08 PM	37472
Toluene	ND	0.048		mg/Kg	1	4/9/2018 4:49:08 PM	37472
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2018 4:49:08 PM	37472
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2018 4:49:08 PM	37472
Surr: 4-Bromofluorobenzene	87.4	80-120		%Rec	1	4/9/2018 4:49:08 PM	37472

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 Quanitative 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.

CLIENT: Souder, Miller & Associates
Client Sample ID: B2-24
Project: Candelario 28 1
Collection Date: 3/28/2018 7:20:00 PM
Lab ID: 1804320-007
Matrix: SOIL
Received Date: 4/5/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	180	30		mg/Kg	20	4/10/2018 2:31:22 PM	37510
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/10/2018 8:51:37 PM	37482
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2018 8:51:37 PM	37482
Surr: DNOP	91.0	70-130		%Rec	1	4/10/2018 8:51:37 PM	37482
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2018 5:12:21 PM	37472
Surr: BFB	94.0	15-316		%Rec	1	4/9/2018 5:12:21 PM	37472
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/9/2018 5:12:21 PM	37472
Toluene	ND	0.048		mg/Kg	1	4/9/2018 5:12:21 PM	37472
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2018 5:12:21 PM	37472
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2018 5:12:21 PM	37472
Surr: 4-Bromofluorobenzene	86.0	80-120		%Rec	1	4/9/2018 5:12:21 PM	37472

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 Quanitative 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#: **1804320**

24-Apr-18

Client: Souder, Miller & Associates

Project: Candelario 28 1

Sample ID	**MB-37510**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**37510**	RunNo:	**50446**					
Prep Date:	**4/10/2018**	Analysis Date:	**4/10/2018**	SeqNo:	**1635906**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-37510**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**37510**	RunNo:	**50446**					
Prep Date:	**4/10/2018**	Analysis Date:	**4/10/2018**	SeqNo:	**1635907**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.6	90	110			

Sample ID	**MB-37741**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**37741**	RunNo:	**50775**					
Prep Date:	**4/23/2018**	Analysis Date:	**4/23/2018**	SeqNo:	**1647500**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-37741**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**37741**	RunNo:	**50775**					
Prep Date:	**4/23/2018**	Analysis Date:	**4/23/2018**	SeqNo:	**1647501**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	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 Quanitative 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#: **1804320**

24-Apr-18

Client: Souder, Miller & Associates

Project: Candelario 28 1

Sample ID	**LCS-37482**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**37482**		RunNo:	**50425**				
Prep Date:	**4/9/2018**	Analysis Date:	**4/10/2018**		SeqNo:	**1635884**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	70	130			
Surr: DNOP	4.7		5.000		93.1	70	130			

Sample ID	**MB-37482**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**37482**		RunNo:	**50425**				
Prep Date:	**4/9/2018**	Analysis Date:	**4/10/2018**		SeqNo:	**1635886**	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		103	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 Quanitative 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#: **1804320**

24-Apr-18

Client: Souder, Miller & Associates

Project: Candelario 28 1

Sample ID **MB-37472**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **37472**	RunNo: **50404**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634431** 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		88.7	15	316			

Sample ID **LCS-37472**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **37472**	RunNo: **50404**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634432** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	75.9	131			
Surr: BFB	1100		1000		106	15	316			

Sample ID **1804320-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **B1-9**	Batch ID: **37472**	RunNo: **50404**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634435** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.32	0	106	77.8	128			
Surr: BFB	980		972.8		101	15	316			

Sample ID **1804320-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **B1-9**	Batch ID: **37472**	RunNo: **50404**
Prep Date: **4/6/2018**	Analysis Date: **4/9/2018**	SeqNo: **1634436** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.32	0	106	77.8	128	4.68	20	
Surr: BFB	1000		932.8		107	15	316	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 Quanitative 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#: **1804320**

24-Apr-18

Client: Souder, Miller & Associates

Project: Candelario 28 1

Sample ID	**MB-37472**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**37472**	RunNo:	**50404**					
Prep Date:	**4/6/2018**	Analysis Date:	**4/9/2018**	SeqNo:	**1634466**	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		85.9	80	120			

Sample ID	**LCS-37472**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**37472**	RunNo:	**50404**					
Prep Date:	**4/6/2018**	Analysis Date:	**4/9/2018**	SeqNo:	**1634467**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.3	77.3	128			
Toluene	0.93	0.050	1.000	0	92.8	79.2	125			
Ethylbenzene	0.91	0.050	1.000	0	91.2	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	93.0	81.6	129			
Surr: 4-Bromofluorobenzene	0.91		1.000		90.6	80	120			

Sample ID	**1804320-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**B1-5**	Batch ID:	**37472**	RunNo:	**50404**					
Prep Date:	**4/6/2018**	Analysis Date:	**4/9/2018**	SeqNo:	**1634469**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9766	0	93.2	68.5	133			
Toluene	0.89	0.049	0.9766	0	91.2	75	130			
Ethylbenzene	0.88	0.049	0.9766	0	89.8	79.4	128			
Xylenes, Total	2.7	0.098	2.930	0	92.1	77.3	131			
Surr: 4-Bromofluorobenzene	0.86		0.9766		88.2	80	120			

Sample ID	**1804320-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**B1-5**	Batch ID:	**37472**	RunNo:	**50404**					
Prep Date:	**4/6/2018**	Analysis Date:	**4/9/2018**	SeqNo:	**1634470**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9823	0	91.6	68.5	133	1.14	20	
Toluene	0.88	0.049	0.9823	0	90.1	75	130	0.626	20	
Ethylbenzene	0.88	0.049	0.9823	0	89.1	79.4	128	0.128	20	
Xylenes, Total	2.7	0.098	2.947	0	90.9	77.3	131	0.749	20	
Surr: 4-Bromofluorobenzene	0.85		0.9823		86.9	80	120	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 Quanitative 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

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: 1804320   RcptNo: 1

Received By: Erin Melendrez   4/5/2018 10:15:00 AM
Completed By: Ashley Gallegos   4/5/2018 3:35:23 PM
Reviewed By: DDS   4/5/18   labeled by sre 04/05/18

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by:
sre 04/05/18

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.1	Good	Yes			

Chain-of-Custody Record

Client: SMT / Cuthbert

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush 5-day

Project Name: Candelario 24 #1

Project #:

Project Manager: Austin Weyant

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1804320	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
3-28-18	3:30	Soil	~~BH-0~~	4oz		-0																
	3:45		BH-5			-001	X			X												
	4:06		BH-9			-002	X			X				X								
	4:25		BH-14			-003								X								
	4:51		~~BH-19~~ BH-19			-004	X			X				X								
	5:40		BH-0			-005								X								
	6:40		BH-14			-006	X			X				X								
	7:20		BH-24			-007	X			X				X								

Date:	Time:	Relinquished by:	Received by:	Date	Time
				4/4/18	0900
4/4/18	1900		courier 4/5/18 EDM	4/5/18	1015

Remarks: Rockcliff

6/0/m - not 418.1 per 4/6/18

Added Cl to -1 per Lucas 4/20/18

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