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

February 3, 2019

#5E27499-BG19

NMOCD District 2
Mr. Mike Bratcher
811 S. First Street
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the El Presidente 3H Releases (2RP-5065 and 2RP-5061), Eddy County, New Mexico

Dear Mr. Bratcher:

On behalf of Marathon Oil Permian LLC, 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 El Presidente #3H site. The site is in Unit P, Section 2, Township 24S, Range 27E, Eddy County, New Mexico, on State 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	El Presidente #3H	Company	Marathon Oil Permian LLC
API Number	30-015-42769	Location	32.240112 -104.153309
Incident Number	2RP-5065, 2RP-5061		
Estimated Date of Release	11/4/2018, 11/07/2018	Date Reported to NMOCD	11/4/2018, 11/07/2018
Land Owner	State of New Mexico	Reported To	NMOCD, NMSLO
Source of Release	Flare Stack		
Released Volume	1.6 bbl	Released Material	Crude Oil
Recovered Volume	None	Net Release	1.6 bbl
NMOCD Closure Criteria	51-100 feet to groundwater		
SMA Response Dates	December 12, 2018 and January 7, 2019		

1.0 Background

On November 4 and again on November 7, 2018, releases were discovered at the El Presidente #3H site due to a flare stack fire. Initial response activities were conducted by Marathon Oil Permian LLC, and included extinguishing the fire as well as isolating the release. A total volume of approximately 1.6 barrels were released; Marathon Oil did not recover any standing fluids. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The C-141 forms are included in Appendix A.

2.0 Site Information and Closure Criteria

El Presidente #3H is located approximately 5 miles southwest of Loving, New Mexico on State land at an elevation of approximately 3140 feet above mean sea level (amsl).

Based upon New Mexico office of the State Engineer data (Appendix B), depth to groundwater in the area is estimated to be 65 feet below grade surface (bgs). There are no 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 1/21/2019). The nearest significant watercourse is the Black River, located approximately 3,500 feet to the south of El Presidente #3H. Figure 2 illustrates the site with 300 and 500-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of between 51-100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

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

3.0 Release Characterization and Remediation Activities

On December 12, 2018, SMA personnel arrived on site in response to the release associated with El Presidente #3H. SMA performed site delineation activities by collecting soil samples around the release site.

A total of 4 sample locations (L1-L4) were investigated using a hand-auger, to a depth of 0.5 feet bgs. Samples were field-screened for chloride using an electrical conductivity (EC) meter. 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.

As summarized in Table 3, results indicated that an area approximately 20 feet by 40 feet by 1 feet deep had been impacted.

On January 7, 2019, SMA returned to the site to guide excavation of contaminated soil. 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 January 5, 2019 that closure samples were expected to be collected in two (2) business days.

On January 7, 2019, SMA conducted confirmation sampling of the walls and base of the excavation. The area around locations L1, L3 and L4 were excavated to a depth of 1 foot bgs. The area around location L2 was excavated to a depth of 1.5 foot bgs.

Confirmation samples were composed of five-point composites of the base (CS1 – CS4) and sidewalls (CSW1 – CSW4).

A total of eight (8) 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. 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).

All results are below the NMOCD Closure Criteria for this site; SMA recommends no further action. Figure 3 shows the extent of the excavation 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 R360 Environmental Solutions 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 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Heather Patterson
Project Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

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

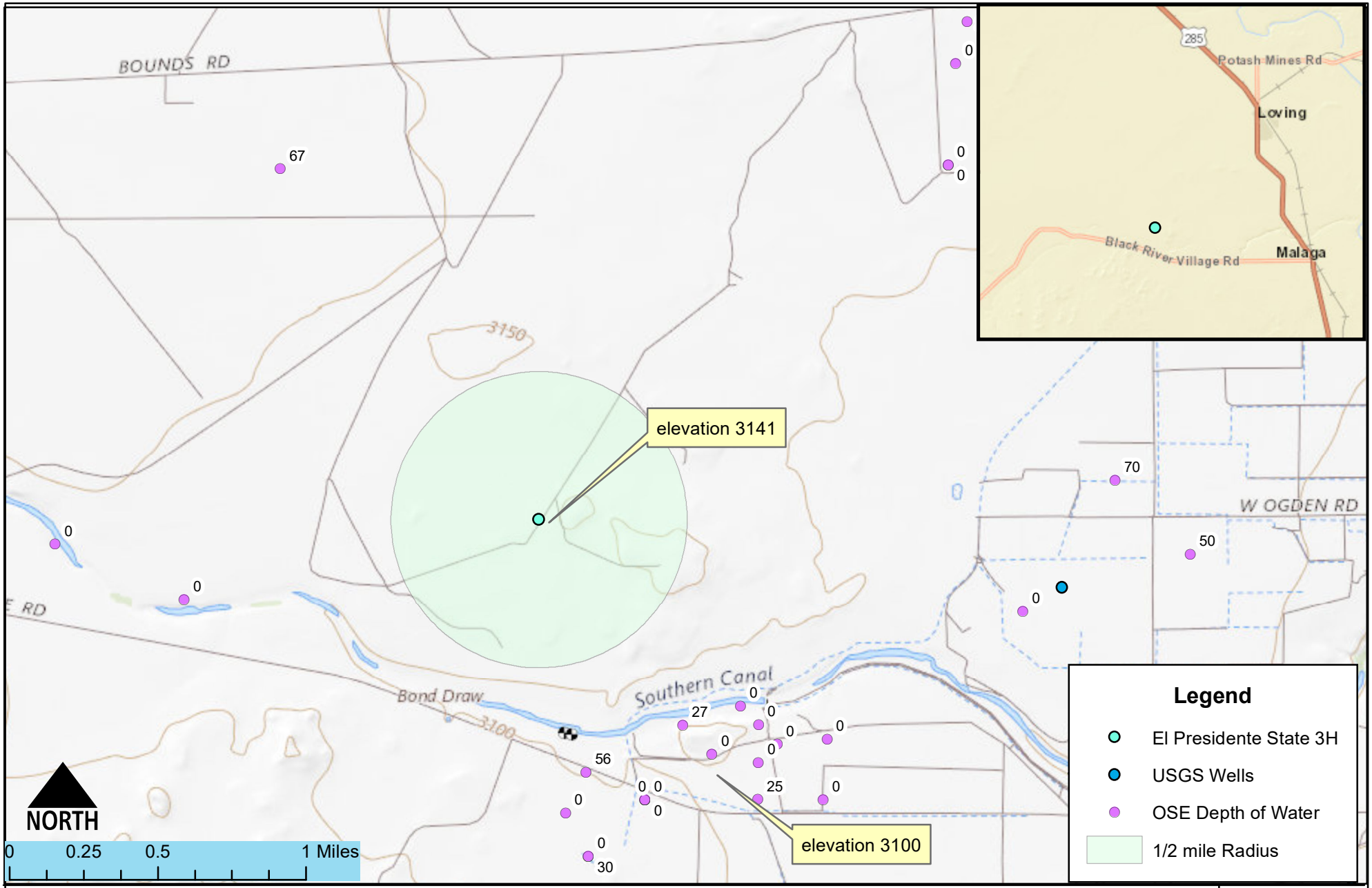
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: Sampling Protocol and Field Notes
Appendix D: Laboratory Analytical Reports

FIGURES



Vicinity and Well Head Protection Map
El Presidente State 3H
S 2-T24S-R27E, New Mexico

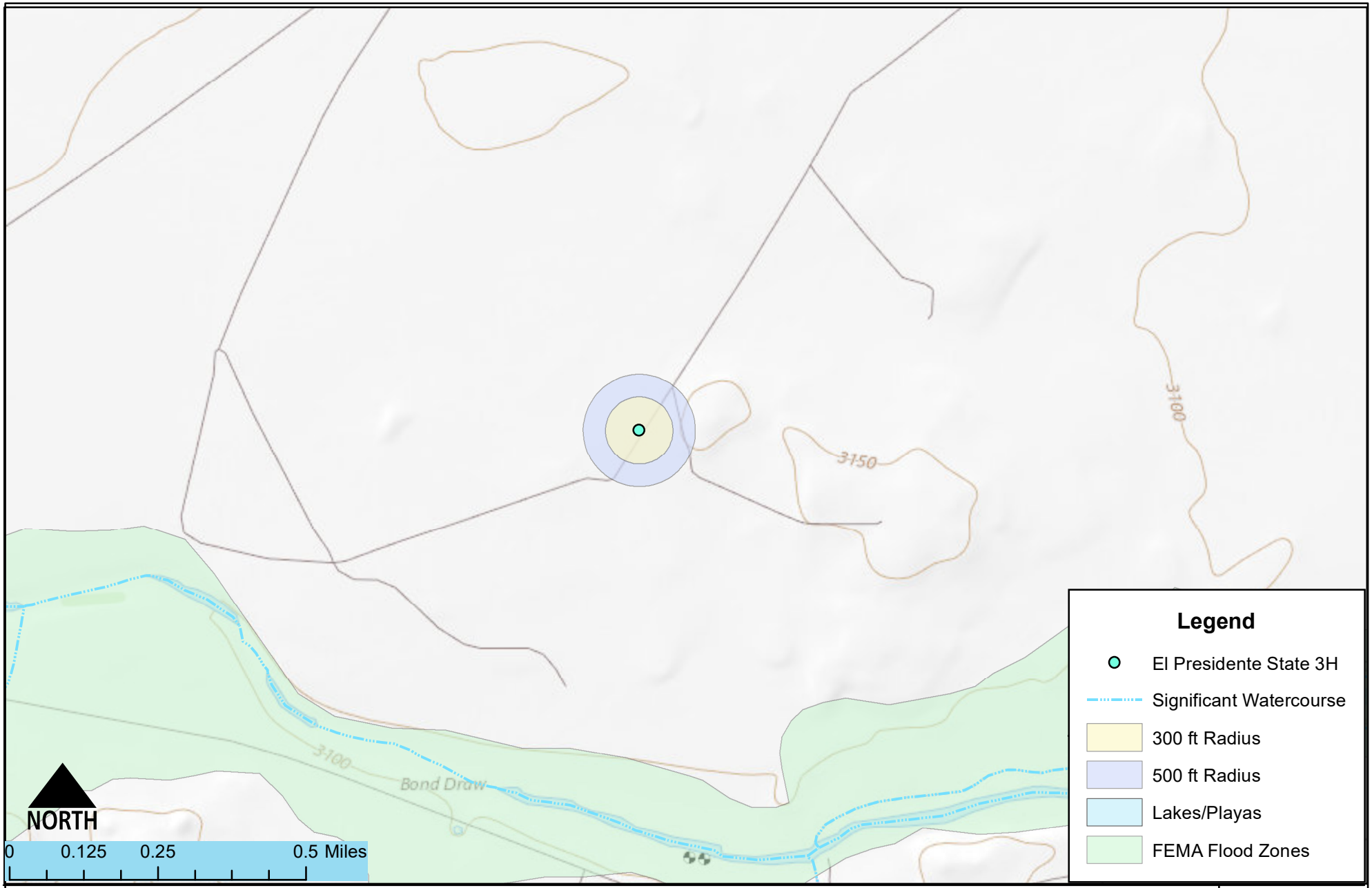
Figure 1

Date Saved: 12/4/2018

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

Drawn Heather Patterson
Checked
Approved

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



Surface Water Radius Map
El Presidente State 3H - Marathon
S 2-T24S-R27E, New Mexico

Figure 2

Date Saved: 12/4/2018

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

Drawn Heather Patterson
Checked
Approved

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

Legend

- Sample Locations
- Pipelines
- New Battery

N

50 Feet

Site and Sample location Map
El Presidente State 3H- Marathon
Sec 2 T24S R27E, NM

Figure 3

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

Date Saved: 1/18/2019

Revisions

By:_____ Date:_____ Descr:_____

By:_____ Date:_____ Descr:_____

Drawn *Heather Patterson*
Date 1/28/2019
Checked
Approved

SMA

201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
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TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	65	NMOSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	N/A	USGS 7.5 Quad
Hortizontal Distance to Nearest Significant Watercourse (ft)	3500	Black 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		600	100		50	10
51' to 100'	X	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					

Table 3:
Summary of Sample Results

Marathon Oil Permian LLC
El Presidente State 3H (2RP-5065,2RP-5061)

Initial Sampling Event

Sample ID	Sample Date	Depth (feet bgs)	BTEX	Benzene	GRO	DRO	MRO	**Total TPH**	Cl-
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria			50	10	1000			2500	10000
L1	12/12/2018	0.5	<0.225	<0.025	<5.0	<9.9	<50	<65	1500
L2	12/12/2018	0.5	<0.217	<0.024	<4.8	23	<49	<77	11000
L3	12/12/2018	0.5	<0.216	<0.024	<4.8	28	<47	<80	170
L4	12/12/2018	0.5	<0.224	<0.025	<5.0	45	<47	<97	430

Closure Sampling Event

Sample ID	Sample Date	Depth (feet bgs)	BTEX	Benzene	GRO	DRO	MRO	**Total TPH**	Cl-
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria			50	10	1000			2500	10000
CS1	1/7/2019	1	<0.215	<0.025	<4.8	<9.9	<50	<65	830
CS2	1/7/2019	1.5	<0.22	<0.024	<4.9	<9.6	<48	<63	250
CS3	1/7/2019	1	<0.211	<0.023	<4.7	<9.6	<48	<63	400
CS4	1/7/2019	1	<0.225	<0.025	<5.0	<9.6	<48	<63	50
CSW1	1/7/2019	sidewall	<0.216	<0.024	<4.8	<9.7	<48	<63	990
CSW2	1/7/2019	sidewall	<0.207	<0.024	<4.8	<9.7	<48	<63	800
CSW3	1/7/2019	sidewall	<0.215	<0.024	<4.8	<9.7	<48	<63	320
CSW4	1/7/2019	sidewall	<0.217	<0.024	<4.8	<9.7	<48	<63	44

"--" = Not Analyzed

APPENDIX A
FORM C141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1832750616
District RP	2RP-5061
Facility ID	
Application ID	pAB1832750280

Release Notification

Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Callie Karrigan	Contact Telephone 575-297-0956
Contact email cnkarrigan@marathonoil.com	Incident # *(assigned by OCD)* NAB1832750616
Contact mailing address 4111 Tidwell Road, Carlsbad New Mexico, 88220	

Location of Release Source

Latitude 32.240112 Longitude -104.153309
(NAD 83 in decimal degrees to 5 decimal places)

Site Name El Presidente State 3H	Site Type Oil and gas drilling facility
Date Release Discovered 11/4/18	API# *(if applicable)* 30-015-42769

Unit Letter	Section	Township	Range	County
P	2	24S	27E	EDDY

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

Nature and Volume of Release

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

☑ Crude Oil	Volume Released (bbls) 25 gallons	Volume Recovered (bbls) none
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Suspected jaco pot failure resulted in the jaco pot overfilling and sending a small amount of fluid down the flare line and released out the flare. In addition, 25 gallons of oil was found around the jaco pot. The lightning ground pole adjacent to the flare caught fire and was extinguished by the fire department.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1832750616
District RP	2RP-5061
Facility ID	
Application ID	pAB1832750280

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Fluids out the flare resulted in a small fire on the adjacent lightning ground pole.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Maria Pruett and Jim Griswold by Callie Karrigan via email 11/4/18 6:17 pm

Initial Response

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

- ☑ The source of the release has been stopped.
- ☑ The impacted area has been secured to protect human health and the environment.
- ☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 11/18/18

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

OCD Only

Received by: Amalia Barrameda Date: 11/23/2018

State of New Mexico
Oil Conservation Division

Incident ID	nAB1832750616
District RP	2RP-5061
Facility ID	
Application ID	pAB1832750280

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?	65 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1832750616
District RP	2RP-5061
Facility ID	
Application ID	pAB1832750280

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

Printed Name: Callie Karrigan Title: HES Professional

Signature: *Callie Karrigan* Date: 2/4/2019

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1832750616
District RP	2RP-5061
Facility ID	
Application ID	pAB1832750280

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Callie Karrigan Title: HES Professional

Signature: *Callie Karrigan* Date: 2/4/2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1833042496
District RP	2RP-5065
Facility ID	
Application ID	pAB1833038116

Release Notification

Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Callie Karrigan	Contact Telephone 575-297-0956
Contact email cnkarrigan@marathonoil.com	Incident # *(assigned by OCD)* NAB1833042496
Contact mailing address 4111 Tidwell Road, Carlsbad New Mexico, 88220	

Location of Release Source

Latitude 32.240112 Longitude -104.153309
(NAD 83 in decimal degrees to 5 decimal places)

Site Name El Presidente State 3H	Site Type Oil and gas drilling facility
Date Release Discovered 11/7/18	API# *(if applicable)* 30-015-42769

Unit Letter	Section	Township	Range	County
P	2	24S	27E	EDDY

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

Nature and Volume of Release

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

☑ Crude Oil	Volume Released (bbls) 1 bbl	Volume Recovered (bbls) none
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Suspected jaco pot failure resulted in the jaco pot overfilling and sending a small amount of fluid down the flare line and released out the flare. Approximately 1 bbl spilled to the ground from the flares light overspray and the release around the jaco pot. The lightning ground pole adjacent to the flare caught fire and was extinguished by the fire department.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1833042496
District RP	2RP-5065
Facility ID	
Application ID	pAB1833038116

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Fluids out the flare resulted in a small fire on the adjacent lightning ground pole.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Maria Pruett and Jim Griswold by Isaac Castro via email 11/7/18 3:56 pm

Initial Response

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

- ☑ The source of the release has been stopped.
- ☑ The impacted area has been secured to protect human health and the environment.
- ☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Callie Karrigan Title: HES Professional

Signature: Callie Karrigan Date: 11/19/18

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

OCD Only

Received by: Amalia Bustamante Date: 11/26/2018

State of New Mexico
Oil Conservation Division

Incident ID	nAB1833042496
District RP	2RP-5065
Facility ID	
Application ID	pAB1833038116

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?	65 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1833042496
District RP	2RP-5065
Facility ID	
Application ID	pAB1833038116

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

Printed Name: __Callie Karrigan_____ Title: _____HES Professional_____

Signature:_____*Callie Karrigan* _____ Date: ___2/4/2019_____

email: ___cnkarrigan@marathonoil.com_____ Telephone: ___575-297-0956_____

OCD Only

Received by: _____ Date**:** _____

State of New Mexico
Oil Conservation Division

Incident ID	nAB1833042496
District RP	2RP-5065
Facility ID	
Application ID	pAB1833038116

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____Callie Karrigan_____ Title: _____HES Professional_____

Signature: *Callie Karrigan* Date: __2/4/2019_____

email: __cnkarrigan@marathonoil.com_____ Telephone: _____575-297-0956_____

OCD Only

Received by: _____ Date**:** _____

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

Closure Approved by: _____ Date**:** _____

Printed Name: _____ Title: _____
__

APPENDIX B
NMOSE WELLS REPORT

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02976		C	ED	4	2	3	12	24S	27E	580519	3566195*	1376	57	27	30
C 03260 POD2	O	C	ED	1	3	3	12	24S	27E	580100	3565984	1385	80	56	24
C 03260 POD1		C	ED	3	3	3	12	24S	27E	579995	3565935	1408	80	56	24

Average Depth to Water: **46 feet**

Minimum Depth: **27 feet**

Maximum Depth: **56 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 579720 **Northing (Y):** 3567316 **Radius:** 1500

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

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02976	4	2	3	12	24S	27E	580519	3566195*

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name: EXISTING WELL

Drill Start Date:	09/26/2003	**Drill Finish Date:**	09/27/2003	**Plug Date:**	
Log File Date:	09/29/2003	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:	SUBMER	**Pipe Discharge Size:**	1.25	**Estimated Yield:**	60 GPM
Casing Size:	6.65	**Depth Well:**	57 feet	**Depth Water:**	27 feet

Water Bearing Stratifications:	Top	Bottom	Description
	0	6	Other/Unknown
	6	22	Other/Unknown
	22	28	Other/Unknown
	28	37	Other/Unknown
	37	42	Sandstone/Gravel/Conglomerate
	42	57	Other/Unknown

Casing Perforations:	Top	Bottom
	37	57

Meter Number:	7472	**Meter Make:**	MASTE
Meter Serial Number:	2144882	**Meter Multiplier:**	100.0000
Number of Dials:	5	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
12/04/2003	2003	53319	A	RPT		0
01/20/2004	2003	58180	A	RPT	JOB COMPLETE	1.492

**YTD Meter Amounts:	Year	Amount
	2003	1.492

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

APPENDIX C
SAMPLING PROTOCOL & FIELD NOTES

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 twelve (12) 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.

Field Screening

Location Name: El Presidente State #3H

Date: 1-04-~~2018~~ 2019

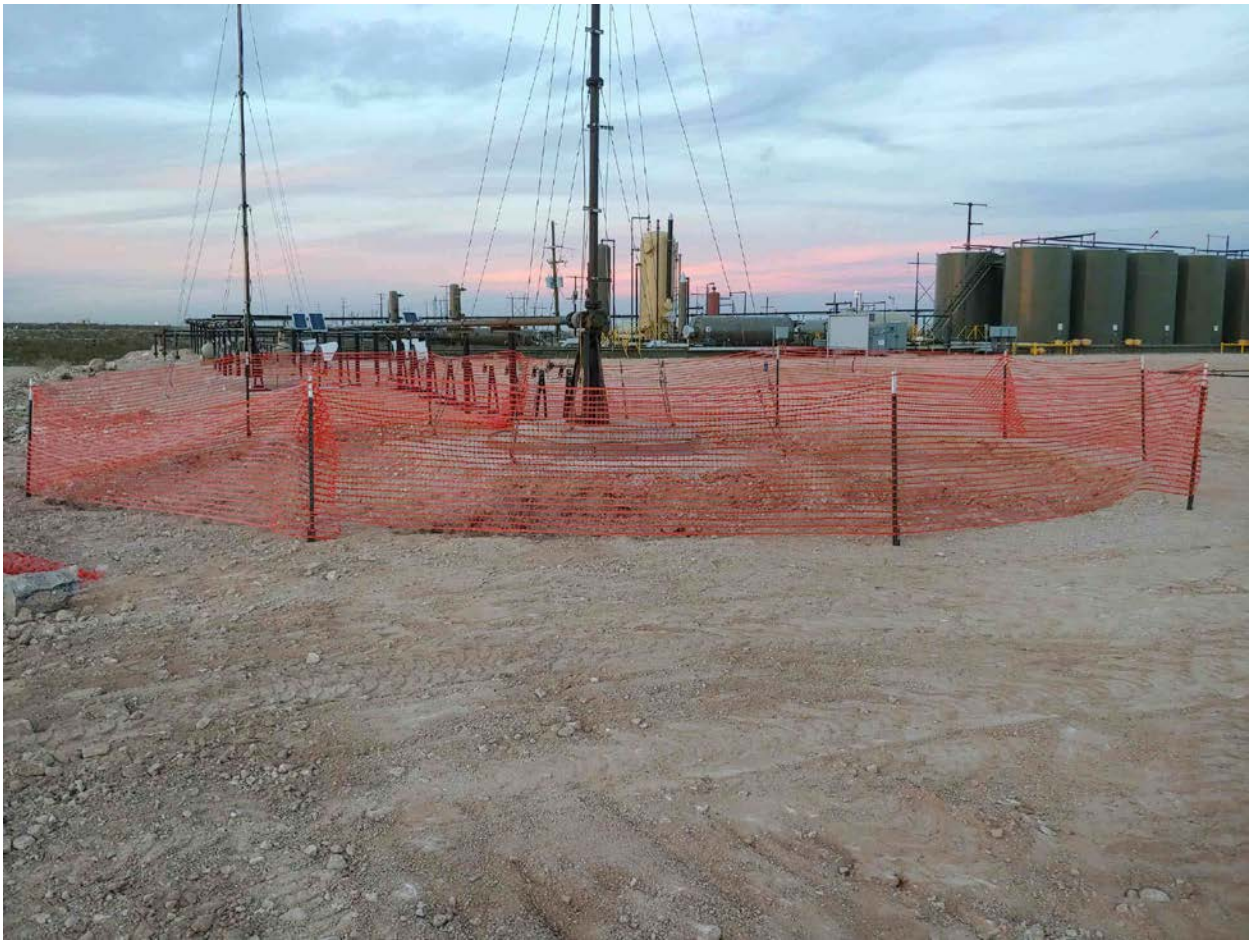
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
C1-0.5	1617	1.24	11.0	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; ~~Clay~~	Dry ~~Moist~~ Wet	no HC odor
C2-0.5	1621	5.11	11.1	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; Clay	Dry ~~Moist~~ Wet	No HC odor
C3-0.5	1624	.529	11.0	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; Clay	Dry ~~Moist~~ Wet	No HC odor
C4-0.5	1626	1.34	10.9	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; Clay	Dry ~~Moist~~ Wet	No HC odor
C1-1	1640	.638	12.9	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; Clay	Dry ~~Moist~~ Wet	No HC odor
C2-1	1642	3.96	12.6	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; Sand Silt; Clay	Dry ~~Moist~~ Wet	No HC odor
C3-1	1644	.509	12.4	–	Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; Sand Silt; ~~Clay~~	Dry ~~Moist~~ Wet	No HC odor
C4-1	1646	.798	12.4	–	Light Dark; Tan Brown; Gray Olive; Yellow Red	Gravel Rock; ~~Sand~~ Silt; ~~Clay~~	Dry ~~Moist~~ Wet	No HC odor
					Light Dark; Tan ~~Brown~~; Gray Olive; Yellow Red	Gravel Rock; Sand Silt; Clay	Dry ~~Moist~~ Wet	

Photo Log

Photo Taken January 7, 2019

Facing north

32.2399632, -104.1541644



APPENDIX D

LABORATORY ANALYTICAL REPORTS

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

December 21, 2018

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

RE: El Presidente OrderNo.: 1812910

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/15/2018 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.

Analytical Report
Lab Order **1812910**
Date Reported: **12/21/2018**

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-0.5
Project: El Presidente
Collection Date: 12/12/2018 12:45:00 PM
Lab ID: 1812910-001 **Matrix:** SOIL **Received Date:** 12/15/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	75		mg/Kg	50	12/20/2018 6:45:39 PM	42221
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/18/2018 12:08:39 PM	42154
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/18/2018 12:08:39 PM	42154
Surr: DNOP	75.7	50.6-138		%Rec	1	12/18/2018 12:08:39 PM	42154
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/18/2018 7:24:39 PM	42148
Surr: BFB	87.8	73.8-119		%Rec	1	12/18/2018 7:24:39 PM	42148
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/18/2018 7:24:39 PM	42148
Toluene	ND	0.050		mg/Kg	1	12/18/2018 7:24:39 PM	42148
Ethylbenzene	ND	0.050		mg/Kg	1	12/18/2018 7:24:39 PM	42148
Xylenes, Total	ND	0.10		mg/Kg	1	12/18/2018 7:24:39 PM	42148
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	12/18/2018 7:24:39 PM	42148

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: L2-0.5
Project: El Presidente
Collection Date: 12/12/2018 12:51:00 PM
Lab ID: 1812910-002 **Matrix:** SOIL **Received Date:** 12/15/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	11000	750		mg/Kg	500	12/20/2018 6:58:04 PM	42221
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	23	9.9		mg/Kg	1	12/18/2018 12:33:04 PM	42154
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/18/2018 12:33:04 PM	42154
Surr: DNOP	77.2	50.6-138		%Rec	1	12/18/2018 12:33:04 PM	42154
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/18/2018 7:47:24 PM	42148
Surr: BFB	87.5	73.8-119		%Rec	1	12/18/2018 7:47:24 PM	42148
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/18/2018 7:47:24 PM	42148
Toluene	ND	0.048		mg/Kg	1	12/18/2018 7:47:24 PM	42148
Ethylbenzene	ND	0.048		mg/Kg	1	12/18/2018 7:47:24 PM	42148
Xylenes, Total	ND	0.097		mg/Kg	1	12/18/2018 7:47:24 PM	42148
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	12/18/2018 7:47:24 PM	42148

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: L3-0.5
Project: El Presidente
Collection Date: 12/12/2018 12:55:00 PM
Lab ID: 1812910-003 **Matrix:** SOIL **Received Date:** 12/15/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	170	30		mg/Kg	20	12/19/2018 11:40:30 PM	42221
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	28	9.4		mg/Kg	1	12/18/2018 12:57:22 PM	42154
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/18/2018 12:57:22 PM	42154
Surr: DNOP	100	50.6-138		%Rec	1	12/18/2018 12:57:22 PM	42154
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/18/2018 8:10:10 PM	42148
Surr: BFB	88.5	73.8-119		%Rec	1	12/18/2018 8:10:10 PM	42148
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/18/2018 8:10:10 PM	42148
Toluene	ND	0.048		mg/Kg	1	12/18/2018 8:10:10 PM	42148
Ethylbenzene	ND	0.048		mg/Kg	1	12/18/2018 8:10:10 PM	42148
Xylenes, Total	ND	0.096		mg/Kg	1	12/18/2018 8:10:10 PM	42148
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	12/18/2018 8:10:10 PM	42148

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: L4-0.5
Project: El Presidente
Collection Date: 12/12/2018 12:59:00 PM
Lab ID: 1812910-004 **Matrix:** SOIL **Received Date:** 12/15/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	430	30		mg/Kg	20	12/19/2018 11:52:54 PM	42221
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	45	9.5		mg/Kg	1	12/18/2018 1:21:45 PM	42154
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/18/2018 1:21:45 PM	42154
Surr: DNOP	82.4	50.6-138		%Rec	1	12/18/2018 1:21:45 PM	42154
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/18/2018 8:32:54 PM	42148
Surr: BFB	86.8	73.8-119		%Rec	1	12/18/2018 8:32:54 PM	42148
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/18/2018 8:32:54 PM	42148
Toluene	ND	0.050		mg/Kg	1	12/18/2018 8:32:54 PM	42148
Ethylbenzene	ND	0.050		mg/Kg	1	12/18/2018 8:32:54 PM	42148
Xylenes, Total	ND	0.099		mg/Kg	1	12/18/2018 8:32:54 PM	42148
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	12/18/2018 8:32:54 PM	42148

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#: **1812910**

21-Dec-18

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**MB-42221**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**42221**	RunNo:	**56456**					
Prep Date:	**12/19/2018**	Analysis Date:	**12/19/2018**	SeqNo:	**1889186**	Units:	**mg/Kg**			

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

Sample ID	**LCS-42221**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**42221**	RunNo:	**56456**					
Prep Date:	**12/19/2018**	Analysis Date:	**12/19/2018**	SeqNo:	**1889187**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	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#: **1812910**

21-Dec-18

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**LCS-42154**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**42154**		RunNo:	**56409**				
Prep Date:	**12/17/2018**	Analysis Date:	**12/18/2018**		SeqNo:	**1886087**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.5	70	130			
Surr: DNOP	4.1		5.000		81.7	50.6	138			

Sample ID	**MB-42154**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**42154**		RunNo:	**56409**				
Prep Date:	**12/17/2018**	Analysis Date:	**12/18/2018**		SeqNo:	**1886088**	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	8.8		10.00		88.1	50.6	138			

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#: **1812910**

21-Dec-18

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**MB-42148**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**42148**	RunNo:	**56430**					
Prep Date:	**12/17/2018**	Analysis Date:	**12/18/2018**	SeqNo:	**1886658**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.8	73.8	119			

Sample ID	**LCS-42148**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42148**	RunNo:	**56430**					
Prep Date:	**12/17/2018**	Analysis Date:	**12/18/2018**	SeqNo:	**1886659**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.2	80.1	123			
Surr: BFB	1000		1000		102	73.8	119			

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#: **1812910**

21-Dec-18

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID **MB-42148**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **42148**	RunNo: **56430**
Prep Date: **12/17/2018**	Analysis Date: **12/18/2018**	SeqNo: **1886689** 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	0.98		1.000		98.1	80	120			

Sample ID **LCS-42148**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **42148**	RunNo: **56430**
Prep Date: **12/17/2018**	Analysis Date: **12/18/2018**	SeqNo: **1886690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.025	1.000	0	80.5	80	120			
Toluene	0.90	0.050	1.000	0	90.5	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical 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: **1812910** RcptNo: **1**

Received By: **Erin Melendrez** **12/15/2018 9:40:00 AM**

Completed By: **Erin Melendrez** **12/15/2018 10:46:15 AM**

Reviewed By: JC 12.17.18

LB: DAD 12/17/18

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: DAD 12/17/18

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	1.6	Good	Yes			
2	2.7	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day Turn

☐ Standard ☐ Rush

Project Name: El Presidente

Project #:

Project Manager: Austin Weyant

Sampler: C. Parker

On Ice: ☒ Yes ☐ No

# of Coolers: 2 (CF=0)

Cooler Temp(including CF): 1.6°C, 2.7°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1812910	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12/12/18	1245	Soil	L1-0.5	4oz		-001	X	X					X			
	1251		L2-0.5			-002	X	X					X			
	1255		L3-0.5			-003	X	X					X			
	1259		L4-0.5			-004	X	X					X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time	Remarks:
					12/13/18	0830	Marathon
Date: 12/14/18	Time: 1900	Relinquished by:	Received by:	Via: Courier	Date 12/15/18	Time 0940	

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

January 14, 2019

Austin Weyant

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

RE: El Presidente OrderNo.: 1901244

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/9/2019 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1901244**
Date Reported: **1/14/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS1
Project: El Presidente
Collection Date: 1/7/2019 11:30:00 AM
Lab ID: 1901244-001 **Matrix:** SOIL **Received Date:** 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	830	30		mg/Kg	20	1/12/2019 3:08:14 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/10/2019 3:34:51 PM	42516
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/10/2019 3:34:51 PM	42516
Surr: DNOP	99.4	50.6-138		%Rec	1	1/10/2019 3:34:51 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2019 7:31:50 PM	42514
Surr: BFB	94.8	73.8-119		%Rec	1	1/10/2019 7:31:50 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/10/2019 7:31:50 PM	42514
Toluene	ND	0.048		mg/Kg	1	1/10/2019 7:31:50 PM	42514
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2019 7:31:50 PM	42514
Xylenes, Total	ND	0.095		mg/Kg	1	1/10/2019 7:31:50 PM	42514
Surr: 4-Bromofluorobenzene	96.4	80-120		%Rec	1	1/10/2019 7:31:50 PM	42514

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: CS2
Project: El Presidente
Collection Date: 1/7/2019 11:31:00 AM
Lab ID: 1901244-002 **Matrix:** SOIL
Received Date: 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	250	30		mg/Kg	20	1/12/2019 3:45:27 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/10/2019 3:56:53 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 3:56:53 PM	42516
Surr: DNOP	130	50.6-138		%Rec	1	1/10/2019 3:56:53 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/10/2019 7:55:24 PM	42514
Surr: BFB	96.8	73.8-119		%Rec	1	1/10/2019 7:55:24 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/10/2019 7:55:24 PM	42514
Toluene	ND	0.049		mg/Kg	1	1/10/2019 7:55:24 PM	42514
Ethylbenzene	ND	0.049		mg/Kg	1	1/10/2019 7:55:24 PM	42514
Xylenes, Total	ND	0.098		mg/Kg	1	1/10/2019 7:55:24 PM	42514
Surr: 4-Bromofluorobenzene	97.7	80-120		%Rec	1	1/10/2019 7:55:24 PM	42514

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: CS3
Project: El Presidente
Collection Date: 1/7/2019 11:32:00 AM
Lab ID: 1901244-003 **Matrix:** SOIL
Received Date: 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	400	30		mg/Kg	20	1/12/2019 3:57:52 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/10/2019 4:18:57 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 4:18:57 PM	42516
Surr: DNOP	125	50.6-138		%Rec	1	1/10/2019 4:18:57 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/10/2019 8:19:04 PM	42514
Surr: BFB	99.4	73.8-119		%Rec	1	1/10/2019 8:19:04 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	1/10/2019 8:19:04 PM	42514
Toluene	ND	0.047		mg/Kg	1	1/10/2019 8:19:04 PM	42514
Ethylbenzene	ND	0.047		mg/Kg	1	1/10/2019 8:19:04 PM	42514
Xylenes, Total	ND	0.094		mg/Kg	1	1/10/2019 8:19:04 PM	42514
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/10/2019 8:19:04 PM	42514

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: CS4
Project: El Presidente
Collection Date: 1/7/2019 11:33:00 AM
Lab ID: 1901244-004 **Matrix:** SOIL **Received Date:** 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	50	30		mg/Kg	20	1/12/2019 4:10:17 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/10/2019 4:41:05 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 4:41:05 PM	42516
Surr: DNOP	82.0	50.6-138		%Rec	1	1/10/2019 4:41:05 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/10/2019 8:42:36 PM	42514
Surr: BFB	97.8	73.8-119		%Rec	1	1/10/2019 8:42:36 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	1/10/2019 8:42:36 PM	42514
Toluene	ND	0.050		mg/Kg	1	1/10/2019 8:42:36 PM	42514
Ethylbenzene	ND	0.050		mg/Kg	1	1/10/2019 8:42:36 PM	42514
Xylenes, Total	ND	0.10		mg/Kg	1	1/10/2019 8:42:36 PM	42514
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	1/10/2019 8:42:36 PM	42514

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: CSW1
Project: El Presidente
Collection Date: 1/7/2019 11:34:00 AM
Lab ID: 1901244-005 **Matrix:** SOIL
Received Date: 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	990	30		mg/Kg	20	1/12/2019 4:22:42 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/10/2019 5:03:07 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 5:03:07 PM	42516
Surr: DNOP	122	50.6-138		%Rec	1	1/10/2019 5:03:07 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2019 9:06:10 PM	42514
Surr: BFB	96.8	73.8-119		%Rec	1	1/10/2019 9:06:10 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/10/2019 9:06:10 PM	42514
Toluene	ND	0.048		mg/Kg	1	1/10/2019 9:06:10 PM	42514
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2019 9:06:10 PM	42514
Xylenes, Total	ND	0.096		mg/Kg	1	1/10/2019 9:06:10 PM	42514
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	1/10/2019 9:06:10 PM	42514

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: CSW2
Project: El Presidente
Collection Date: 1/7/2019 11:35:00 AM
Lab ID: 1901244-006 **Matrix:** SOIL
Received Date: 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	800	30		mg/Kg	20	1/12/2019 4:59:56 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/10/2019 5:25:07 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 5:25:07 PM	42516
Surr: DNOP	71.1	50.6-138		%Rec	1	1/10/2019 5:25:07 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2019 9:29:45 PM	42514
Surr: BFB	99.1	73.8-119		%Rec	1	1/10/2019 9:29:45 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	1/10/2019 9:29:45 PM	42514
Toluene	ND	0.046		mg/Kg	1	1/10/2019 9:29:45 PM	42514
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2019 9:29:45 PM	42514
Xylenes, Total	ND	0.092		mg/Kg	1	1/10/2019 9:29:45 PM	42514
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	1/10/2019 9:29:45 PM	42514

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: CSW3
Project: El Presidente
Collection Date: 1/7/2019 11:36:00 AM
Lab ID: 1901244-007 **Matrix:** SOIL **Received Date:** 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	320	30		mg/Kg	20	1/12/2019 5:12:21 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/10/2019 5:47:00 PM	42516
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2019 5:47:00 PM	42516
Surr: DNOP	128	50.6-138		%Rec	1	1/10/2019 5:47:00 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2019 9:53:08 PM	42514
Surr: BFB	99.1	73.8-119		%Rec	1	1/10/2019 9:53:08 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/10/2019 9:53:08 PM	42514
Toluene	ND	0.048		mg/Kg	1	1/10/2019 9:53:08 PM	42514
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2019 9:53:08 PM	42514
Xylenes, Total	ND	0.095		mg/Kg	1	1/10/2019 9:53:08 PM	42514
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/10/2019 9:53:08 PM	42514

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: CSW4
Project: El Presidente
Collection Date: 1/7/2019 11:37:00 AM
Lab ID: 1901244-008 **Matrix:** SOIL
Received Date: 1/9/2019 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	44	30		mg/Kg	20	1/12/2019 5:24:46 AM	42565
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/10/2019 6:09:03 PM	42516
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/10/2019 6:09:03 PM	42516
Surr: DNOP	113	50.6-138		%Rec	1	1/10/2019 6:09:03 PM	42516
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2019 10:16:40 PM	42514
Surr: BFB	94.7	73.8-119		%Rec	1	1/10/2019 10:16:40 PM	42514
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/10/2019 10:16:40 PM	42514
Toluene	ND	0.048		mg/Kg	1	1/10/2019 10:16:40 PM	42514
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2019 10:16:40 PM	42514
Xylenes, Total	ND	0.097		mg/Kg	1	1/10/2019 10:16:40 PM	42514
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	1/10/2019 10:16:40 PM	42514

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
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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#: **1901244**

14-Jan-19

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**MB-42565**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**42565**	RunNo:	**56965**					
Prep Date:	**1/11/2019**	Analysis Date:	**1/12/2019**	SeqNo:	**1905579**	Units:	**mg/Kg**			

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

Sample ID	**LCS-42565**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**42565**	RunNo:	**56965**					
Prep Date:	**1/11/2019**	Analysis Date:	**1/12/2019**	SeqNo:	**1905580**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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#: **1901244**

14-Jan-19

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**LCS-42516**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**42516**		RunNo:	**56890**				
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**		SeqNo:	**1903681**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	70	130			
Surr: DNOP	4.5		5.000		90.1	50.6	138			

Sample ID	**MB-42516**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**42516**		RunNo:	**56890**				
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**		SeqNo:	**1903682**	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	8.5		10.00		85.2	50.6	138			

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#: **1901244**

14-Jan-19

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID	**MB-42518**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**42518**	RunNo:	**56885**					
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**	SeqNo:	**1904141**	Units:	**%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.3	73.8	119			

Sample ID	**LCS-42518**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42518**	RunNo:	**56885**					
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**	SeqNo:	**1904142**	Units:	**%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	73.8	119			

Sample ID	**MB-42514**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**42514**	RunNo:	**56885**					
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**	SeqNo:	**1904148**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.1	73.8	119			

Sample ID	**LCS-42514**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**42514**	RunNo:	**56885**					
Prep Date:	**1/9/2019**	Analysis Date:	**1/10/2019**	SeqNo:	**1904149**	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		110	73.8	119			

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#: **1901244**

14-Jan-19

Client: Souder, Miller & Associates

Project: El Presidente

Sample ID **MB-42518**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **42518**	RunNo: **56885**
Prep Date: **1/9/2019**	Analysis Date: **1/10/2019**	SeqNo: **1904170** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID **LCS-42518**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **42518**	RunNo: **56885**
Prep Date: **1/9/2019**	Analysis Date: **1/10/2019**	SeqNo: **1904171** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **MB-42514**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **42514**	RunNo: **56885**
Prep Date: **1/9/2019**	Analysis Date: **1/10/2019**	SeqNo: **1904177** 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	0.96		1.000		95.8	80	120			

Sample ID **LCS-42514**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **42514**	RunNo: **56885**
Prep Date: **1/9/2019**	Analysis Date: **1/10/2019**	SeqNo: **1904178** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	80	120			
Toluene	0.95	0.050	1.000	0	94.8	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical 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: **1901244** RcptNo: **1**

Received By: **Victoria Zellar** **1/9/2019 8:45:00 AM** Victoria Zellar

Completed By: **Victoria Zellar** **1/9/2019 9:26:36 AM** Victoria Zellar

Reviewed By: LB 1/9/19

Labeled by ENM 1/9/19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

ENM 1/9/19

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	3.1	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day
☐ Standard ☐ Rush

Project Name: El Presidente

Project #:

Project Manager: A. Weyant

Sampler: LAA

On Ice: ☑ Yes ☐ No

# of Coolers:

Cooler Temp(including CF): 3.1°C

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 Name	Container Type and #	Preservative Type	HEAL No. 1901244	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, ~~NO_3, NO_2, PO_4, SO_4~~	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-7	11:30	soil	CS 1	4oz		-001	X	X					X			
	11:31		CS 2			-002	X	X					X			
	11:32		CS 3			-003	X	X					X			
	11:33		CS 4			-004	X	X					X			
	11:34		CSW 1			-005	X	X					X			
	11:35		CSW 2			-006	X	X					X			
	11:36		CSW 3			-007	X	X					X			
	11:37		CSW 4			-008	X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
1-7-19	3:00	Samantha Watson			1/8/19	1400
1/8/19	1900		Victoria Villa	Courier	1/9/19	8:45

Remarks: ~~Matador~~ Marathon

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.