Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5694
Facility ID	
Application ID	

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?	85 (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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5694
Facility ID	
Application ID	

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

Printed Name: Jon E. Fields Title: Director, Field Environmental

Signature: Jon E. Fields Date: 12/17/19

email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5694
Facility ID	
Application ID	

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: Jon E. Fields Title: Director, Field Environmental

Signature: Jon E. Fields Date: 12/17/19

email: jefields@eprod.com Telephone: 713-381-6684

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: _____

Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220
(575) 689-7040

December 16, 2019 SMA #5E27957, BG20

Enterprise Field Services LLC
P. O. Box 4324
Houston, TX 77210
Attn.: Ms. Alena Miro

RE: ENTERPRISE TRUNK A PIPELINE RELEASE REPORT, EDDY COUNTY, NEW MEXICO (2RP-5694)

Dear Ms. Miro:

Souder, Miller & Associates (SMA) is pleased to submit this letter report to Enterprise Field Services LLC (Enterprise) summarizing the remediation and final confirmation sampling of the Trunk A pipeline nonreportable release. The site is located in Section 7, T: 23S, R: 31E, (32.321626, -103.812300) Eddy County, New Mexico, on federal (BLM) surface. Based on the information presented herein, the site has been restored to meet the standards of 19.15.29.12 NMAC, and no further action is required.

Site Characterization

On October 2, 2019, a leak occurred on the Trunk A pipeline resulting in the release of 78 MSCF of natural gas and one (1) barrel of pipeline fluids. At the request of Enterprise, on October 12, 2019, SMA collected composite soil samples from the excavated area (approximately 7 x 10 x 4 feet) exposed for pipeline repair activities to determine whether the release was properly remediated. Based on field screening result, SMA requested that additional excavation occur while the equipment was present and available. The western portion was excavated to an area approximately 28 x 30 x 11 feet and the eastern portion was excavated to an area approximately 24 x 30 x 7 feet. Two sample locations (L1 and L2) were collected from beneath the exposed pipeline, L1 was collected at a depth 7 feet bgs on the eastern portion and L2 was collected at 11 bgs on the western portion. In addition, four 5-point composite sidewall samples (SW1, SW2, SW3, SW4) were collected. Laboratory analysis of the eastern sidewall sample (SW3) returned levels that exceeded the closure criteria for the location. SMA returned to the location to guide further excavation activities by collecting soil samples for field screening on November 15, 2019. The excavation was expanded laterally two (2) additional feet to the east. The final excavation measured 26 x 30 x 7 feet. Figure 3 depicts the final excavation dimensions and sample locations. Upon completion of sampling, the soil samples were delivered to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis. On December 11, 2019 SMA returned to the excavation to collect a composite sample for the top four (4) feet of sidewall (SW4) for chlorides. Upon completion of sampling, the soil sample was delivered to Xenco Laboratories located in Carlsbad, New Mexico.

Based upon the New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) water well data, depth to groundwater in the area is estimated to be 98 feet below grade surface (bgs). There are five (5) known water sources within ½-mile of the location, according to USGS & NMOSE online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed November 15, 2019; Appendix B). The nearest significant watercourse is an unnamed canal, located approximately 2,370 feet to the northwest.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of 51-100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC, and no further action is required.

Analytical Results

The Enterprise Trunk A pipeline nonreportable release soil samples were analyzed utilizing the following EPA-Approved methods:

- **EPA Method 8021** for the detection of light end hydrocarbons including Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX).
- **EPA Method 8015B** for diesel, gasoline and motor oil range organics (DRO/GRO/MRO)
- **EPA Method 300** for the detection of anions, specifically chlorides.

Analytical results are summarized in Table 1 below. A copy of the laboratory report is attached in Appendix A.

Table 1. Enterprise Field Services Trunk A Nonreportable Release

Sample ID	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10	1000			100* 2500	600* 10000
L1	10/12/2019	7	In-situ	<0.215	<0.024	<4.8	<9.8	<49	<63.6	<60
L2	10/12/2019	11	In-situ	<0.211	<0.023	<4.7	<10	<50	<64.7	<60
SW1	10/12/2019	0-11	In-situ	<0.216	<0.024	<4.8	<9.3	<47	<61.7	170
SW2	10/12/2019	0-11	In-situ	<0.217	<0.024	<4.8	<10	<50	<64.8	200
SW3	10/12/2019	0-7	Excavated	<0.216	<0.024	<4.8	200	<48	200	95
	11/15/2019	0-7	In-situ	<0.216	<0.024	<4.8	63	<49	63	250
SW4	12/11/2019	0-4	In-situ	-	-	-	-	-	-	<9.8
	10/12/2019	0-11	In-situ	<0.215	<0.024	<4.8	<9.7	<48	<62.5	750

*NMOCD reclamation standard for off-pad, top 4 feet

SMA recommends no further action for this release.

Souder, Miller and Associates appreciates the opportunity to provide environmental services to you. If you have any questions or comments concerning this report, please feel free to call Ashley Maxwell at 505-325-7535.

Sincerely,
Souder, Miller & Associates

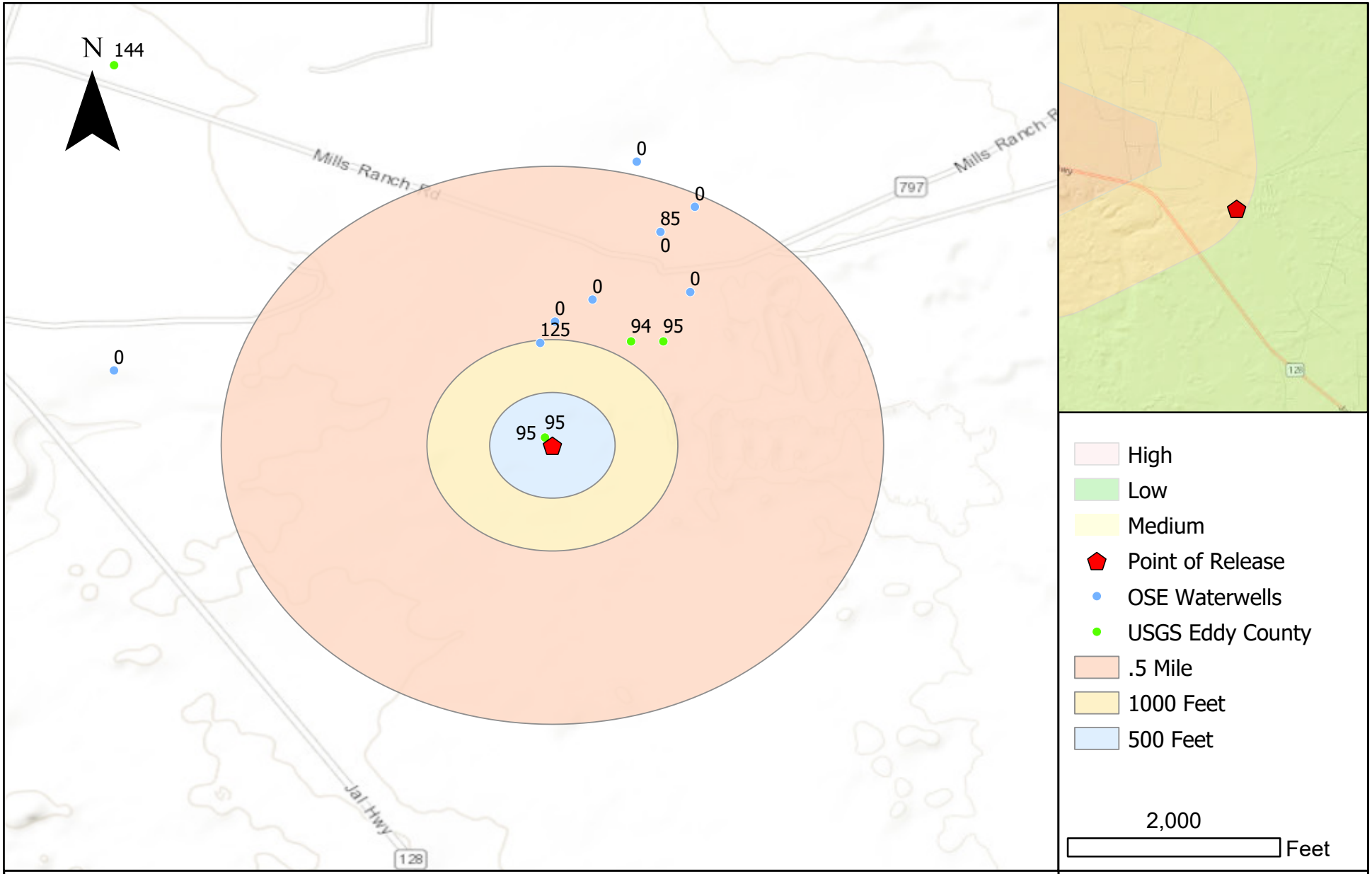
Ashley Maxwell
Project Scientist

Shawna Chubbuck
Senior Scientist

Figures:
Figure 1: Regional Vicinity and Wellhead Protection Map
Figure 2: Surface Water Protection Map
Figure 3: Vicinity and Sample Location Map

Appendix
Appendix A: Form C-141
Appendix B: Field Notes & Depth to Water Documentaiton
Appendix C: Site Photography
Appendix D: Laboratory Reports

FIGURES



Regional Vicinity & Wellhead Protection Map
Trunk A Pipeline Release - Enterprise
UL: H S: 7 T: 23S R: 31E Eddy County, New Mexico

Figure 1

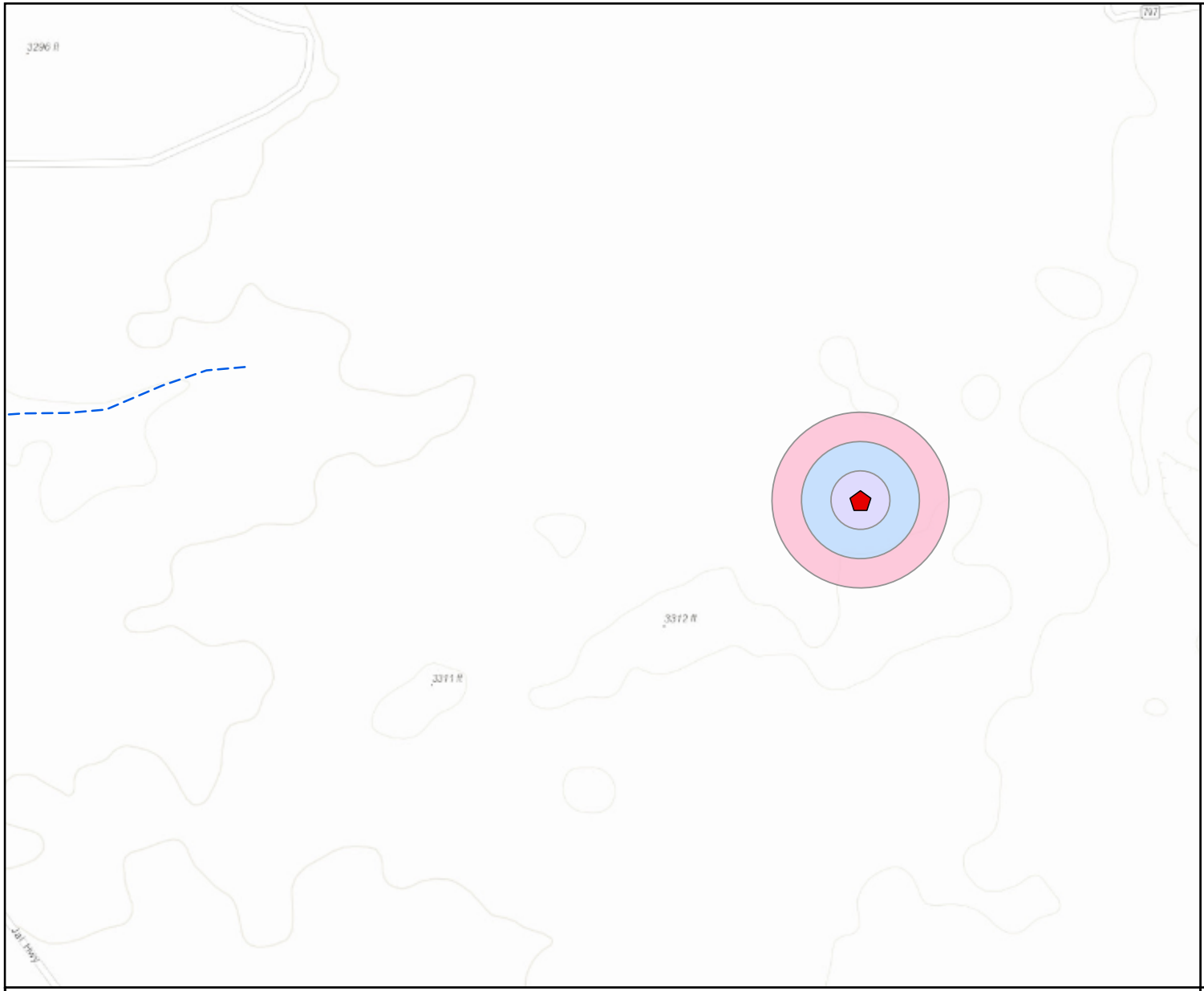
\\192.168.22.10\Projects\5-Enterprise 2019 MSA On Call Services (5E27957)\GIS\ARCGIS\ENTERPRISE_MIT.aprx

Date Saved: 10/4/2019

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

Drawn Lynn A. Acosta
Date 10/9/2019
Checked
Approved

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



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

Buffer Distance

- 100 Feet
- 200 Feet
- 300 Feet

N

790 Feet

Surface Water Protection Map
Trunk A Pipeline Release - Enterprise
UL: H S: 7 T: 23S R: 31E, Eddy County, New Mexico

Figure 2

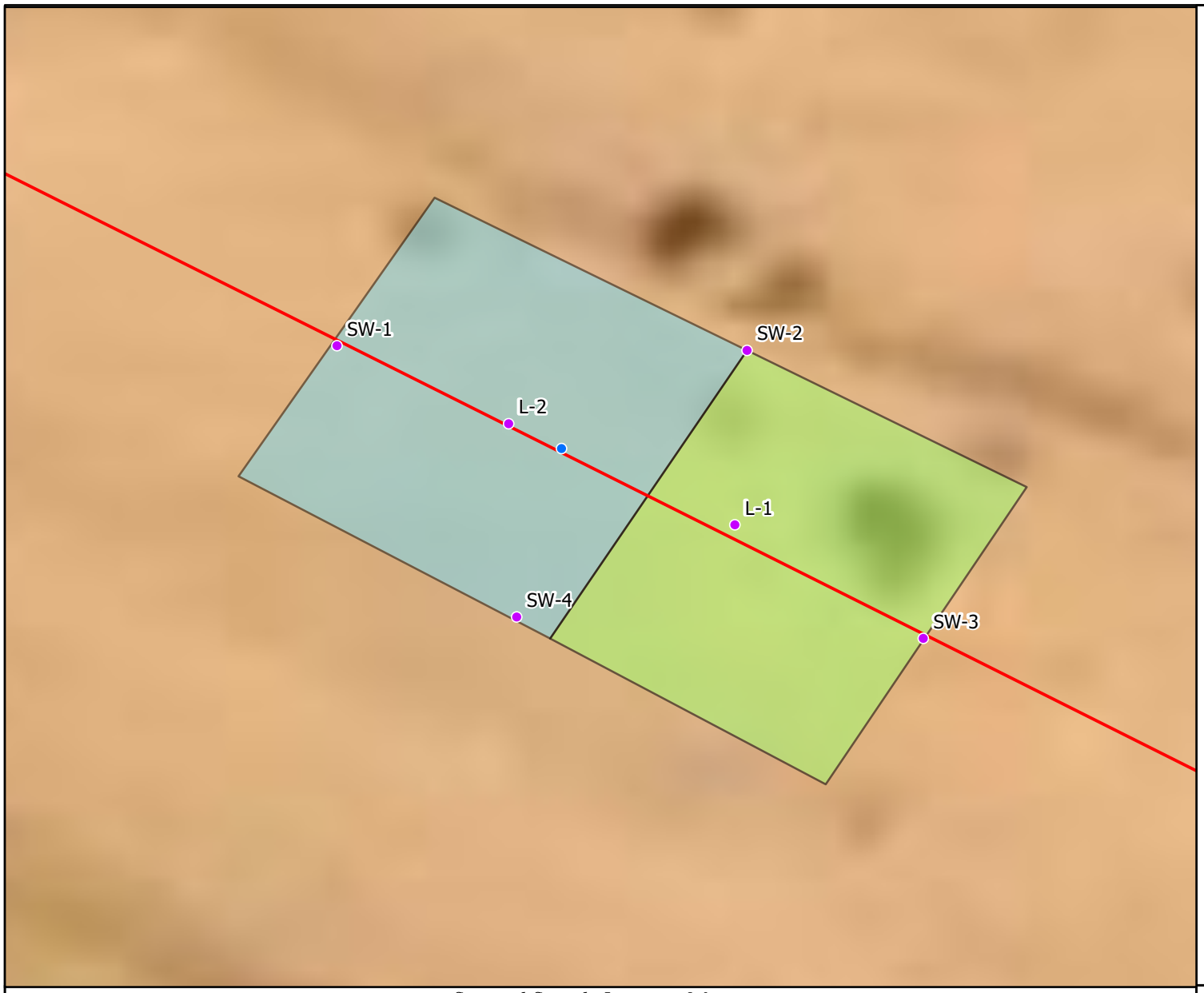
\\192.168.22.10\Projects\5-Enterprise 2019 MSA On Call Services (5E27957)\GIS\ARCGIS\ENTERPRISE_MIT.aprx

Date Saved: 11/11/2019

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

Drawn Lynn A. Acosta
Date 11/15/2019
Checked
Approved

SMA
201 South Halagueno Street
Carlsbad, New Mexico 88220
(575) 689-7040
Serving the Southwest & Rocky Mountains



Legend
- Point of Release
- Sample Locations
- 7' Excavation
- Pipeline
- 11' Excavation

N

0 5 10 20 Feet

Site and Sample Location Map
Trunk A Pipeline Release -Enterprise
UL: H S: 7 T: 23S R: 31E, Eddy County, New Mexico

Figure 3

\\192.168.22.10\Projects\5-Enterprise 2019 MSA On Call Services (5E27957)\GIS\ARCGIS\ENTERPRISE_MIT.aprx

Date Saved: 11/11/2019

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

Drawn Lynn A. Acosta
Date 11/15/2019
Checked
Approved

201 South Halagueno Street
Carlsbad, New Mexico 88220
(575) 689-7040
Serving the Southwest & Rocky Mountains

APPENDIX A
FORM C-141

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	NRM1931851486
District RP	2RP-5694
Facility ID	fAB1608156616
Application ID	pRM1931850802

Release Notification 1WB9X-191015-C-1410

Responsible Party

Responsible Party	Enterprise Field Services LLC	OGRID	241602
Contact Name	Alena Miro	Contact Telephone	575-628-6802
Contact email	ammiro@eprod.com	Incident # *(assigned by OCD)*	
Contact mailing address	PO Box 4324, Houston, TX 77210		

Location of Release Source

Latitude N32.321626 Longitude W -103.812300
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Trunk A Pipeline	Site Type Pipeline ROW
Date Release Discovered 10/2/2019	API# *(if applicable)* N/A

Unit Letter	Section	Township	Range	County
H	7	23S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private : N/A

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 1 bbl	Volume Recovered (bbls)
☒ Natural Gas	Volume Released (Mcf) 78.16 MCF	Volume Recovered (Mcf) 0 MCF
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A pipeline leak estimated at 1.73 MSCF of gas occurred due to suspected internal corrosion and 76.43 MSCF of gas was released due to a controlled pipeline blowdown to facilitate repairs.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM1931851486
District RP	2RP-5693
Facility ID	fAB1608156616
Application ID	pRM1931850802

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

Initial Response

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

☒ 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:

N/A

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: Jon E. Fields Title: Director, Field Environmental

Signature: Jon E. Fields Date: 10/14/19

email: jefields@eprod.com Telephone: 713-381-6684

OCD Only

Received by: Ramona Marcus Date: 11/14/2019

Facility : Trunk A Leak **Date :** 10/2/2019

Enter data in shaded fields to calculate gas volumes released due to leak and/or blowdown of system.

Hours of leak	0.25
Diameter of hole (inches)	0.171875
Line Pressure at Leak	220
Volume of Gas Leaked	**1.73**

Hourly Basis

1.73 MSCF

NOTE: Enter Components on the Gas Leak or Gas Blowdown sheet as needed.

Rectangle or Line Crack

Length, in.		0
	Width, in,	0
Eqv. Diameter, in.		#DIV/0!

Calculations:

Volume of Gas Leaked (MSCF) = Diameter*Diameter*(Upstream Gauge Pressure + Atmospheric Pressure)*Hours of Leak

****Reference: Pipeline Rules of Thumb Handbook, 3rd Edition, McAllister. Page 260. Assuming Standard Temperature and Pressure (14.7 psi and 60 F)**

Footage of Pipe blowndown	11836
Initial line pressure	220
Diameter of Pipe (inches)	8
Volume of Gas Blown Down	**76.42907**

MSCF

Calculations:

Volume of Gas Blown Down (MSCF) = Volume at pipeline conditions (ft3)*(Gauge Pressure (psig)+Atmospheric Pressure 13.7 psi)*Standard Temperature (60F) /(1000 scf/mscf)*Standard Pressure (14.7psi)*Temperature(F)*Z Factor

Volume at pipeline conditions (scf) = Diameter/12 (ft)*Diameter/12 (ft)*PI/4*Length of pipe (ft)

****Reference: Gas Pipeline Hydraulics, Menson (2005) Pages 132-134. Assuming the Ideal Gas Law and Tpipeline = Tatm.**

Total Gas Loss	**78.16 MSCF**	**0.078 MMSCF**

Cause/ Reason: Unknown

Corrective Action: Isolated and blew down

Name: David Sedillo **Cell Phone:** 575-200-7981

APPENDIX B
FIELD NOTES
&
DEPTH TO WATER DOCUMENTATION

SMA Field Screening

Location Name: Trunk A

Date: 10.11.19 2

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
Sw1	Sand	0-4	1:12	2.72	20.8	1789	
Sw2	"	0-4	1:15	2.51	19.9	700	
Sw3	"	0-4	1:18	1.11	19.3	961	
Sw4	"	0-4	1:20	3.32	19.4	1512	
C1	"	0-4	1:23	1.93	19.0	1538	
Sw1.1	"	0-5'	1:36	1.25	26.5°	1263	
Sw2.1 **	"	0-5'	1:38	0.13	19.3	109	
Sw3.1 **	"	0-5'	1:41	6.10	20.5°	244	
Sw4.1	"	0-5'	1:44	1.23	20.3	333	
C1.1	"	5'	1:47	1.42	19.2	1614	
Sw1.2 **	"	6-7'	2:43	0.19	15.7	35.9	
Sw4.2	"	6-7'	2:45	0.79	16.9	25.1	
C1.2	"	7'	2:47	1.42	15.7	408.	
C1.3 **		11'	3:03	6.07	22.1	194	
Sw4.3 **		0-11'	3:10	0.774	20.6	65.5	
C2.1 **		7'	3:12	0.07	20.7	190	

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 Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twp	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02492 POD2		C	ED	3	2	2	07	23S	31E	611767	3576996	291	400	125	275
C 02492		CUB	ED	4	4	4	06	23S	31E	612056	3577320*	667	135	85	50
C 02865		CUB	ED	4	4	4	06	23S	31E	612056	3577320*	667	174		
C 03520 POD1		C	ED	3	1	1	07	23S	31E	610733	3576905	1080	500		

Average Depth to Water: **105 feet**

Minimum Depth: **85 feet**

Maximum Depth: **125 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 611794.69 **Northing (Y):** 3576706 **Radius:** 1500

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

APPENDIX C
SITE PHOTOGRAPHY

Trunk A Pipeline Excavation

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

October 22, 2019

Ashley Maxwell

Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Trunk A OrderNo.: 1910835

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/15/2019 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 **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1
Project: Trunk A
Collection Date: 10/12/2019 3:03:00 PM
Lab ID: 1910835-001 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	10/18/2019 6:13:46 PM	48244
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/16/2019 5:35:59 PM	48171
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/16/2019 5:35:59 PM	48171
Surr: DNOP	120	70-130		%Rec	1	10/16/2019 5:35:59 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/16/2019 3:42:29 PM	48166
Surr: BFB	93.5	77.4-118		%Rec	1	10/16/2019 3:42:29 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/16/2019 3:42:29 PM	48166
Toluene	ND	0.048		mg/Kg	1	10/16/2019 3:42:29 PM	48166
Ethylbenzene	ND	0.048		mg/Kg	1	10/16/2019 3:42:29 PM	48166
Xylenes, Total	ND	0.095		mg/Kg	1	10/16/2019 3:42:29 PM	48166
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	10/16/2019 3:42:29 PM	48166

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

Analytical Report
Lab Order **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Trunk A
Collection Date: 10/12/2019 2:43:00 PM
Lab ID: 1910835-002 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	170	60		mg/Kg	20	10/18/2019 6:26:11 PM	48244
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/16/2019 5:58:17 PM	48171
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/16/2019 5:58:17 PM	48171
Surr: DNOP	78.9	70-130		%Rec	1	10/16/2019 5:58:17 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/16/2019 4:06:02 PM	48166
Surr: BFB	95.1	77.4-118		%Rec	1	10/16/2019 4:06:02 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/16/2019 4:06:02 PM	48166
Toluene	ND	0.048		mg/Kg	1	10/16/2019 4:06:02 PM	48166
Ethylbenzene	ND	0.048		mg/Kg	1	10/16/2019 4:06:02 PM	48166
Xylenes, Total	ND	0.096		mg/Kg	1	10/16/2019 4:06:02 PM	48166
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	10/16/2019 4:06:02 PM	48166

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

Qualifiers:

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

Analytical Report
Lab Order **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Trunk A
Collection Date: 10/12/2019 1:38:00 PM
Lab ID: 1910835-003 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	200	60		mg/Kg	20	10/18/2019 6:38:36 PM	48244
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2019 6:20:29 PM	48171
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2019 6:20:29 PM	48171
Surr: DNOP	113	70-130		%Rec	1	10/16/2019 6:20:29 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/16/2019 5:39:45 PM	48166
Surr: BFB	86.6	77.4-118		%Rec	1	10/16/2019 5:39:45 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/16/2019 5:39:45 PM	48166
Toluene	ND	0.048		mg/Kg	1	10/16/2019 5:39:45 PM	48166
Ethylbenzene	ND	0.048		mg/Kg	1	10/16/2019 5:39:45 PM	48166
Xylenes, Total	ND	0.097		mg/Kg	1	10/16/2019 5:39:45 PM	48166
Surr: 4-Bromofluorobenzene	90.4	80-120		%Rec	1	10/16/2019 5:39:45 PM	48166

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

Analytical Report
Lab Order **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Trunk A
Collection Date: 10/12/2019 1:41:00 PM
Lab ID: 1910835-004 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	95	60		mg/Kg	20	10/19/2019 12:03:33 AM	48258
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	200	9.7		mg/Kg	1	10/16/2019 6:42:42 PM	48171
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/16/2019 6:42:42 PM	48171
Surr: DNOP	114	70-130		%Rec	1	10/16/2019 6:42:42 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/16/2019 6:03:07 PM	48166
Surr: BFB	99.2	77.4-118		%Rec	1	10/16/2019 6:03:07 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/16/2019 6:03:07 PM	48166
Toluene	ND	0.048		mg/Kg	1	10/16/2019 6:03:07 PM	48166
Ethylbenzene	ND	0.048		mg/Kg	1	10/16/2019 6:03:07 PM	48166
Xylenes, Total	ND	0.096		mg/Kg	1	10/16/2019 6:03:07 PM	48166
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	10/16/2019 6:03:07 PM	48166

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

Analytical Report
Lab Order **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Trunk A
Collection Date: 10/12/2019 3:10:00 PM
Lab ID: 1910835-005 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	750	60		mg/Kg	20	10/19/2019 12:40:34 AM	48258
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/16/2019 7:04:52 PM	48171
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/16/2019 7:04:52 PM	48171
Surr: DNOP	92.1	70-130		%Rec	1	10/16/2019 7:04:52 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/16/2019 6:49:58 PM	48166
Surr: BFB	87.4	77.4-118		%Rec	1	10/16/2019 6:49:58 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/16/2019 6:49:58 PM	48166
Toluene	ND	0.048		mg/Kg	1	10/16/2019 6:49:58 PM	48166
Ethylbenzene	ND	0.048		mg/Kg	1	10/16/2019 6:49:58 PM	48166
Xylenes, Total	ND	0.095		mg/Kg	1	10/16/2019 6:49:58 PM	48166
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	10/16/2019 6:49:58 PM	48166

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

Analytical Report
Lab Order **1910835**
Date Reported: **10/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2
Project: Trunk A
Collection Date: 10/12/2019
Lab ID: 1910835-006 **Matrix:** SOIL **Received Date:** 10/15/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	10/19/2019 12:52:54 AM	48258
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2019 7:27:05 PM	48171
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2019 7:27:05 PM	48171
Surr: DNOP	129	70-130		%Rec	1	10/16/2019 7:27:05 PM	48171
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/16/2019 7:13:15 PM	48166
Surr: BFB	86.8	77.4-118		%Rec	1	10/16/2019 7:13:15 PM	48166
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	10/16/2019 7:13:15 PM	48166
Toluene	ND	0.047		mg/Kg	1	10/16/2019 7:13:15 PM	48166
Ethylbenzene	ND	0.047		mg/Kg	1	10/16/2019 7:13:15 PM	48166
Xylenes, Total	ND	0.094		mg/Kg	1	10/16/2019 7:13:15 PM	48166
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	10/16/2019 7:13:15 PM	48166

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910835**

22-Oct-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48244**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **48244**	RunNo: **63802**							
Prep Date: **10/18/2019**	Analysis Date: **10/18/2019**	SeqNo: **2181497**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-48244**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **48244**	RunNo: **63802**							
Prep Date: **10/18/2019**	Analysis Date: **10/18/2019**	SeqNo: **2181498**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Sample ID: **MB-48258**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **48258**	RunNo: **63831**							
Prep Date: **10/18/2019**	Analysis Date: **10/18/2019**	SeqNo: **2182048**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-48258**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **48258**	RunNo: **63831**							
Prep Date: **10/18/2019**	Analysis Date: **10/18/2019**	SeqNo: **2182049**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910835**

22-Oct-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48171**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **48171**	RunNo: **63721**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2177765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.6	70	130			

Sample ID: **LCS-48171**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **48171**	RunNo: **63721**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2178334** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	119	63.9	124			
Surr: DNOP	5.7		5.000		114	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910835**

22-Oct-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48166**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **48166**	RunNo: **63727**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2178684** 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	900		1000		90.5	77.4	118			

Sample ID: **LCS-48166**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **48166**	RunNo: **63727**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2178685** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	80	120			
Surr: BFB	1100		1000		106	77.4	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1910835**

22-Oct-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48166**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **48166**	RunNo: **63727**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2178705** 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	0.94		1.000		94.0	80	120			

Sample ID: **LCS-48166**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **48166**	RunNo: **63727**
Prep Date: **10/15/2019**	Analysis Date: **10/16/2019**	SeqNo: **2178706** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.1	80	120			

Qualifiers:

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

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: **1910835** RcptNo: 1

Received By: **Erin Melendrez** **10/15/2019 9:05:00 AM**

Completed By: **Erin Melendrez** **10/15/2019 10:13:56 AM**

Reviewed By: DM 10/15/19

Chain of Custody

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

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 10/15/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	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:
☐ Standard ☒ Rush 5 day

Project Name: Trunk A

Project #:

Project Manager: Ashley Maxwell

Sampler: LA / MJP

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.8+0.5(CF)=4.3(°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. 1910835	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)
10/12/19	3:03	soil	L1	4oz		-001	✓	✓					✓			
10/12/19	2:43		SW1			-002	✓	✓					✓			
10/12/19	1:38		SW2			-003	✓	✓					✓			
10/12/19	1:41		SW3			-004	✓	✓					✓			
10/12/19	3:10		SW4			-005	✓	✓					✓			
10/12/19			L2			-006	✓	✓					✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
					10/14/19	1430
10/14/19	1500			Courier	10/15/19	0905

Remarks: Enterprise

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

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

November 22, 2019

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Trunk A OrderNo.: 1911837

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/19/2019 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 **1911837**
Date Reported: **11/22/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW-3
Project: Trunk A
Collection Date: 11/15/2019 5:00:00 PM
Lab ID: 1911837-001 **Matrix:** SOIL **Received Date:** 11/19/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	250	60		mg/Kg	20	11/22/2019 3:31:27 AM	48948
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	63	9.8		mg/Kg	1	11/21/2019 11:13:17 AM	48921
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/21/2019 11:13:17 AM	48921
Surr: DNOP	104	70-130		%Rec	1	11/21/2019 11:13:17 AM	48921
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/21/2019 9:27:55 AM	48917
Surr: BFB	101	77.4-118		%Rec	1	11/21/2019 9:27:55 AM	48917
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/21/2019 9:27:55 AM	48917
Toluene	ND	0.048		mg/Kg	1	11/21/2019 9:27:55 AM	48917
Ethylbenzene	ND	0.048		mg/Kg	1	11/21/2019 9:27:55 AM	48917
Xylenes, Total	ND	0.097		mg/Kg	1	11/21/2019 9:27:55 AM	48917
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/21/2019 9:27:55 AM	48917

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1911837**

22-Nov-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48948**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **48948**	RunNo: **64694**							
Prep Date: **11/21/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216679**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-48948**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **48948**	RunNo: **64694**							
Prep Date: **11/21/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216680**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1911837**

22-Nov-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **LCS-48921** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **48921** RunNo: **64670**

Prep Date: **11/20/2019** Analysis Date: **11/21/2019** SeqNo: **2215580** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.8	63.9	124			
Surr: DNOP	4.9		5.000		98.5	70	130			

Sample ID: **MB-48921** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **48921** RunNo: **64670**

Prep Date: **11/20/2019** Analysis Date: **11/21/2019** SeqNo: **2215581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		109	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1911837**

22-Nov-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48917**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216202** 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	1000		1000		101	77.4	118			

Sample ID: **LCS-48917**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216203** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	80	120			
Surr: BFB	1100		1000		112	77.4	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1911837**

22-Nov-19

Client: Souder, Miller & Associates

Project: Trunk A

Sample ID: **MB-48917**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216223** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: **LCS-48917**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216224** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID: **1911837-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SW-3**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216230** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9597	0	104	76	123			
Toluene	1.0	0.048	0.9597	0	107	80.3	127			
Ethylbenzene	1.0	0.048	0.9597	0	109	80.2	131			
Xylenes, Total	3.1	0.096	2.879	0	109	78	133			
Surr: 4-Bromofluorobenzene	0.97		0.9597		101	80	120			

Sample ID: **1911837-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SW-3**	Batch ID: **48917**	RunNo: **64686**
Prep Date: **11/20/2019**	Analysis Date: **11/21/2019**	SeqNo: **2216231** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9785	0	104	76	123	1.86	20	
Toluene	1.0	0.049	0.9785	0	106	80.3	127	1.26	20	
Ethylbenzene	1.0	0.049	0.9785	0	107	80.2	131	0.184	20	
Xylenes, Total	3.1	0.098	2.935	0	107	78	133	0.327	20	
Surr: 4-Bromofluorobenzene	0.99		0.9785		102	80	120	0	0	

Qualifiers:

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

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: **1911837** RcptNo: 1

Received By: **Yazmine Garduno** **11/19/2019 9:05:00 AM** Yazmine Garduno

Completed By: **Yazmine Garduno** **11/19/2019 10:28:26 AM** Yazmine Garduno

Reviewed By: YG 11/19/19

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: DM 11/19/19

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	1.7	Good				

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:
☐ Standard ☑ Rush 5 day turn

Project Name: Trunk A

Project #:

Project Manager: Ashley Maxwell

Sampler: CHA / MP

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.8-0.1=1.7 (°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. 1911431	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)
11/15/19	1300	Soil	SW-3	4 oz		-001	X	X					X			

Analysis Request

Relinquished by:	Date	Time	Received by:	Via:	Date	Time
					11/18/19	1500
	11/18/19	1900		Courier	11/19/19	0905

Remarks:

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.

Certificate of Analysis Summary 646005

Souder, Miller & Associates, Carlsbad, NM

Project Name: Trunk A

Project Id:

Contact: Ashley Maxwell

Project Location:

Date Received in Lab: Wed Dec-11-19 04:30 pm

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	646005-001					
	Field Id:	SW4					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	Dec-11-19 15:39					
Chloride by EPA 300	***Extracted:***	Dec-11-19 17:34					
	Analyzed:	Dec-11-19 20:29					
	Units/RL:	mg/kg RL					
Chloride		<9.98 9.98					

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Analytical Report 646005

for

Souder, Miller & Associates

Project Manager: Ashley Maxwell

Trunk A

12-DEC-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

12-DEC-19

Project Manager: **Ashley Maxwell**
Souder, Miller & Associates
201 S Halagueno Street
Carlsbad, NM 88220

Reference: XENCO Report No(s): **646005**
Trunk A
Project Address:

Ashley Maxwell:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 646005. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 646005 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 646005

Souder, Miller & Associates, Carlsbad, NM

Trunk A

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW4	S	12-11-19 15:39	0 - 4 ft	646005-001

CASE NARRATIVE

Client Name: Souder, Miller & Associates

Project Name: Trunk A

Project ID:
Work Order Number(s): *646005*

Report Date: *12-DEC-19*
Date Received: *12/11/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 646005

Souder, Miller & Associates, Carlsbad, NM

Trunk A

Sample Id:	**SW4**	Matrix:	Soil	Date Received:	12.11.19 16.30
Lab Sample Id:	646005-001	Date Collected:	12.11.19 15.39	Sample Depth:	0 - 4 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.11.19 17.34	Basis:	Wet Weight
Seq Number:	3110204				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.11.19 20.29	U	1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 646005

Souder, Miller & Associates

Trunk A

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3110204 Matrix: Solid Date Prep: 12.11.19
MB Sample Id: 7692228-1-BLK LCS Sample Id: 7692228-1-BKS LCSD Sample Id: 7692228-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	263	105	90-110	1	20	mg/kg	12.11.19 18:32	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3110204 Matrix: Soil Date Prep: 12.11.19
Parent Sample Id: 645968-001 MS Sample Id: 645968-001 S MSD Sample Id: 645968-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	248	200	456	104	461	106	90-110	1	20	mg/kg	12.11.19 18:49	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3110204 Matrix: Soil Date Prep: 12.11.19
Parent Sample Id: 646001-002 MS Sample Id: 646001-002 S MSD Sample Id: 646001-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	233	200	428	98	417	93	90-110	3	20	mg/kg	12.11.19 20:04	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com

Work Order No: 462005

Page _____ of _____

Project Manager:	Ashley Maxwell	Bill to: (if different)	
Company Name:	SMA	Company Name:	
Address:	201 S Halaguena	Address:	
City, State ZIP:	Carlsbad, NM	City, State ZIP:	
Phone:	505-320-9241	Email:	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Trunk A	Turn Around	
Project Number:		Routine ☐	
Project Location		Rush: Same Day	
Sampler's Name:	Ashley Maxwell	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	12.0	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST: Chlorides	Sample Comments
	SW4	Soil	12/11/19	2:59	0-4	1		X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12.11.19 16:30	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Souder, Miller & Associates

Date/ Time Received: 12/11/2019 04:30:00 PM

Work Order #: 646005

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	12
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 12/11/2019

Checklist reviewed by: Jessica Kramer Date: 12/12/2019