



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

April 6, 2020

#5E28980-BG2

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

SUBJECT: Remediation Closure Report for the Cypress #001H Release (NRM2004932296), in Eddy County, New Mexico.

To Whom it May Concern:

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 Cypress #001H site. The site is in Unit M, Section 09, Township 23S, Range 27E, Eddy County, New Mexico, on Private land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Cypress #001H	Company	Marathon Oil Permian LLC
API Number	30-015-44046	Location	32.31385 -104.20248
Incident Number	NRM2004932296		
Estimated Date of Release	2/13/2020	Date Reported to NMOCD	2/17/2020
Land Owner	Private	Reported To	NMOCD
Source of Release	Nipple washing out near rotoflex unit		
Released Volume	16.49 bbls	Released Material	Crude oil
Recovered Volume	10 bbls	Net Release	6.49 bbls
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	2/17/2020. 3/14/2020		

## **1.0 Background**

On February 13, 2020, a release was discovered at the Cypress #001H site due to a nipple washing out of a nearby rotoflex unit. Initial response activities were conducted by Marathon Oil, and included source elimination and standing fluid recovery activities, which recovered approximately 10 barrels of fluid. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

## **2.0 Site Information and Closure Criteria**

The Cypress 1H is located approximately six (6) miles north west of Loving, New Mexico on private land at an elevation of approximately 3150 feet above mean sea level (amsl).

Based upon water well data (Appendix B), depth to groundwater in the area is estimated to be 150 feet below grade surface (bgs). There is one 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/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/); accessed 3/25/2020). The nearest significant watercourse is a FEMA flood zone, located approximately 460 feet to the east. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

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

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

## **3.0 Release Characterization and Remediation Activities**

On February 17, 2020, SMA personnel arrived on site in response to the release associated with Cypress 1H. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp as well as a Dextsil® PetroFLAG TPH Analyzer.

A total of nine sample locations (S1-S9) were investigated using a hand-auger, to depths up to 2 feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the methods above. A total of thirty-one (31) 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 the most heavily impacted area located on the well pad measured approximately 50 feet by 45 feet by 1.5 feet deep, and adjacent overspray impacted area measured approximately 56 feet by 80 feet by 0.5 feet deep.

On March 13-14, 2020, SMA returned to the site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened using the method listed above. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on March 12, 2020 that closure samples were expected to be collected in two (2) business days.

Cypress #1H Remediation Closure Report  
(NRM2004932296) April 6, 2020

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On March 14, 2020, SMA conducted confirmation sampling of the walls and base of the heavier impacted area of the excavation, which measured approximately 50 feet x 15 feet x 1.5 feet deep in area around sample location S3, S5, and S1. The area around sample location S2 was excavated to a depth of 1 foot bgs, which measured 31 feet x 24 feet. Sample locations S4, S6, S7, S8, S9 were scraped to approximately one-half foot bgs, which measured approximately 56 feet by 80 feet.

Confirmation samples were comprised of five-point composites of the base (CS1-CS9) and walls (SW1-SW4).

A total of thirteen (13) confirmation samples were collected for laboratory analysis for total chloride using the methods listed above. 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).

Figure 3 shows the extent of the excavated areas and sample locations. Laboratory results are summarized in Table 3. Photos of the open excavation are included in Appendix C.

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.

SMA recommends no further action for this release, and on behalf of Marathon Oil, Permian LLC request closure for incident number NRM2001932296.

#### **4.0 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 Ashley Maxwell at 505-320-8975 or Shawna Chubbuck at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES



Ashley Maxwell  
Project Scientist

Reviewed by:



Shawna Chubbuck  
Senior Scientist

Cypress #1H Remediation Closure Report  
(NRM2004932296) April 6, 2020

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## **ATTACHMENTS:**

### **Figures:**

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map

Figure 3: Site and Sample Locations Map

### **Tables:**

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

### **Appendices:**

Appendix A: Form C141

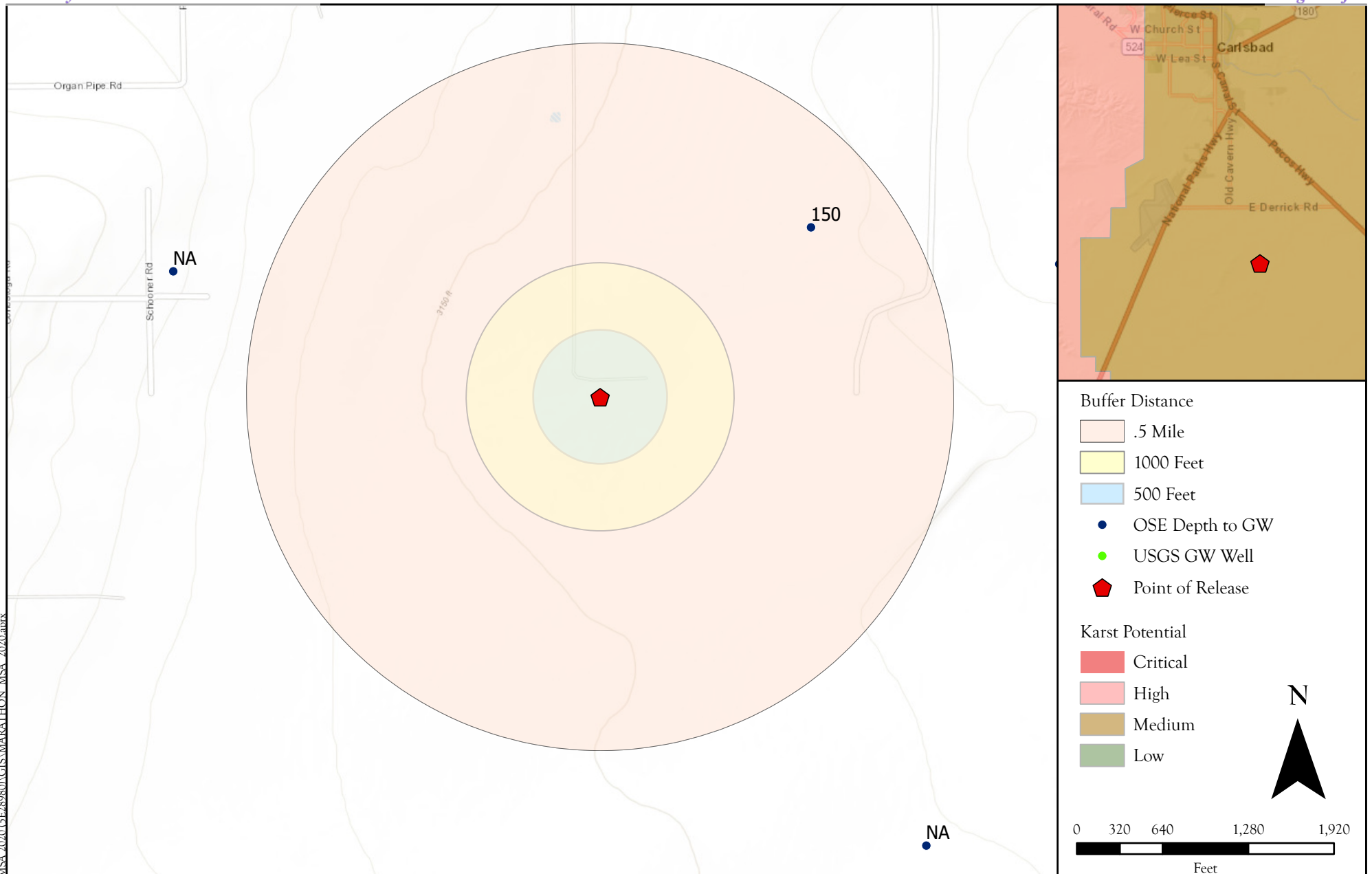
Appendix B: NMOSE Wells Report

Appendix C: Sampling Protocol, Field Notes & Photo Log

Appendix D: Laboratory Analytical Reports



# FIGURES



Site Map  
Cypress #001H - Marathon Oil  
UL: M S: 09 T: 23S R: 27E, Eddy County, New Mexico

Figure 1

Revisions  
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

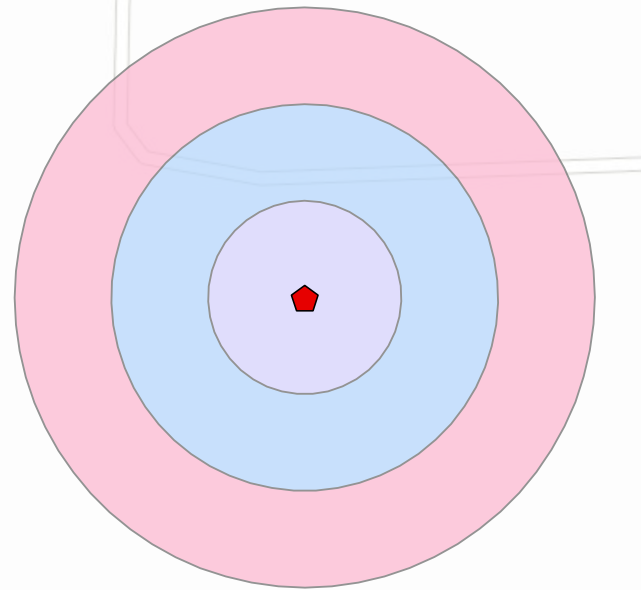
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Drawn  
Date  
Checked  
Approved

Lynn A. Acosta  
4/2/2020  
\_\_\_\_\_  
\_\_\_\_\_




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




## Buffer Distance

 300 Feet

 200 Feet

 100 Feet

 Springs & Seeps

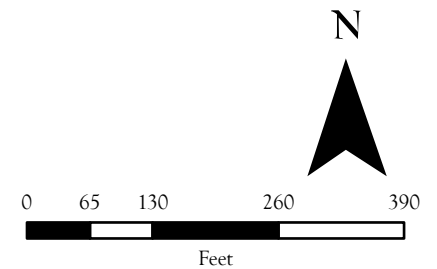
 Streams & Canals

 Rivers

 NM Wetlands

 Lakes & Playas

 FEMA Flood Zones 2011

 Point of Release


Surface Water Protection Map  
Cypress #001H - Marathon Oil  
UL: M S: 09 T: 23S R: 27E, Eddy County, New Mexico

Figure 2

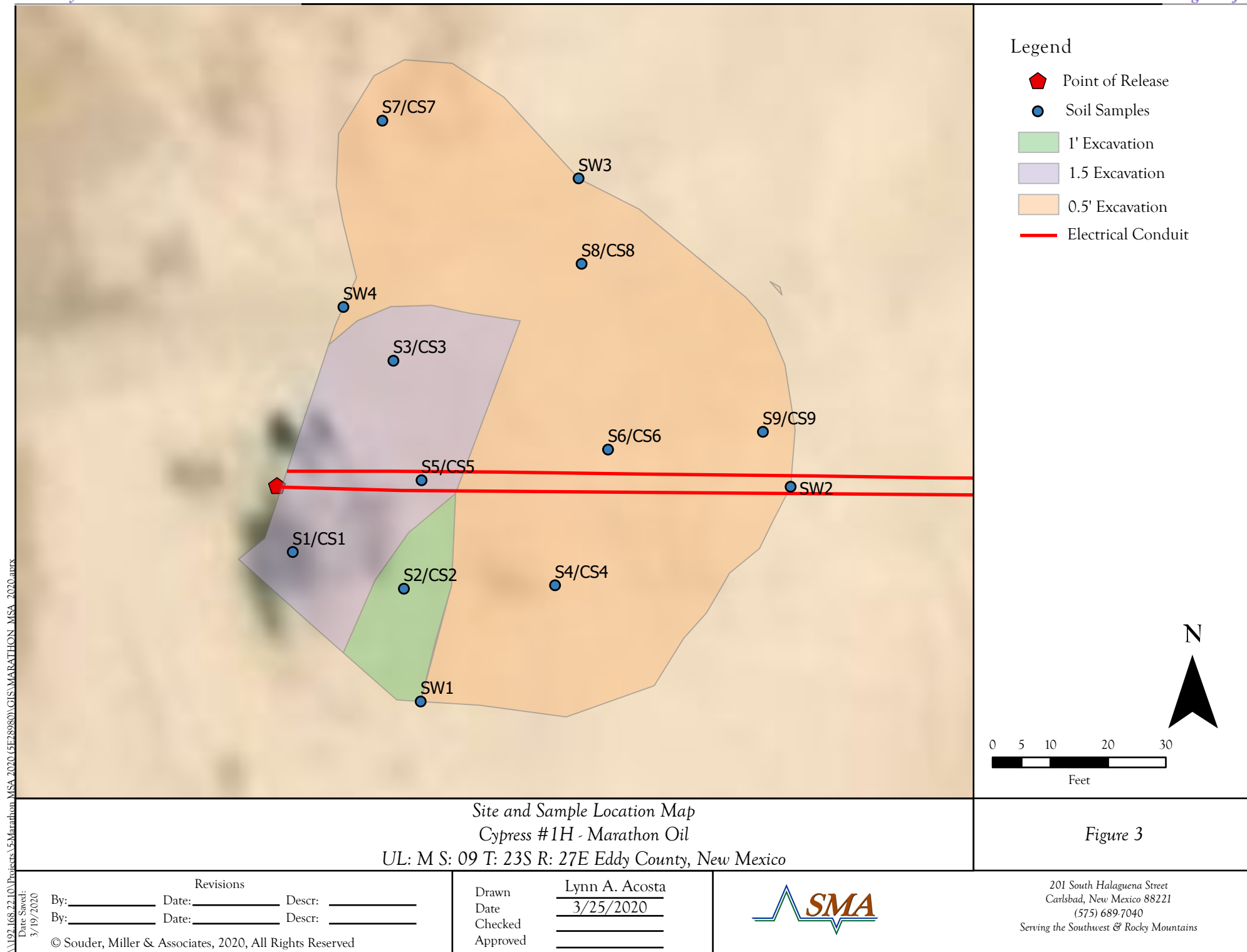
## Revisions

By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

Drawn Lynn A. Acosta  
Date 4/2/2020  
Checked \_\_\_\_\_  
Approved \_\_\_\_\_



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Carlsbad, New Mexico 88221  
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# TABLES

Table 2:  
NMOCD Closure CriteriaMarathon Oil, Permian LLC  
Cypress #1H (NRM2004932296)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	150	New Mexico Office of the State Engineer
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	1900	NMOSE, USGS Topo Map
Horizontal Distance to Nearest Significant Watercourse (ft)	350	USGA Topo Map

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?						
<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 Permian, LLC  
Cypress #001H  
(NRM2004932296)

Sample ID	Sample Date	Depth (feet bgs)	Completed Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10	1000			2500	20000
Initial Sampling Event										
S1	2/17/2020	0.5	Excavated	37.71	<0.024	99	3600	1200	4899	2800
		1	Excavated	0.41	<0.025	17	1900	810	2727	860
		1.5	In-situ	<0.215	<0.024	<4.8	220	98	318	1500
		2	In-situ	5.04	<0.024	<4.9	280	150	430	540
S2	2/17/2020	0.5	Excavated	0.609	<0.024	23	3100	1300	4423	3600
		1	In-situ	<0.216	<0.024	<4.8	820	370	1190	950
		1.5	In-situ	<0.216	<0.024	<4.8	21	<46	21	370
		2	In-situ	<0.222	0.025	<4.9	<9.7	<49	<63.6	380
S3	2/17/2020	0.5	Excavated	0.35	<0.024	25	1400	510	1935	2300
		1	Excavated	<0.224	<0.025	<5.0	1000	450	1450	2000
		1.5	In-situ	<0.215	<0.024	<4.8	640	290	930	990
		2	In-situ	<0.224	<0.025	<5.0	100	50	150	150
S4	2/17/2020	0.5	In-situ	0.12	<0.024	7.1	700	330	1037.1	3400
		1	In-situ	<0.211	<0.023	<4.7	72	<49	72	230
		1.5	In-situ	<0.224	<0.025	<5.0	31	<49	31	230
		2	In-situ	<0.222	<0.025	<4.9	<9.7	<48	<62.6	230
S5	2/17/2020	0.5	Excavated	0.976	<0.025	24	2400	1200	3624	3500
		1	Excavated	0.15	<0.025	7.8	1000	600	1607.8	690
		1.5	In-situ	<0.222	<0.025	<4.9	94	52	146	260
		2	In-situ	<0.224	<0.025	<5.0	45	<48	45	100
S6	2/17/2020	0.5	In-situ	<0.221	<0.025	<4.9	460	200	660	500
		1	In-situ	<0.221	<0.025	<4.9	230	100	330	340
		1.5	In-situ	<0.224	<0.025	<5.0	11	<49	11	150
		2	In-situ	<0.217	<0.024	<4.8	<9.7	<49	<63.5	61
S7	2/17/2020	Surface	Excavated	<0.212	<0.024	<4.7	1500	1200	2700	1400
		0.5	In-situ	<0.225	<0.025	<5.0	35	56	91	170
S8	2/17/2020	Surface	Excavated	<0.210	<0.023	<4.7	1300	890	2190	1100
		0.5	In-situ	<0.224	<0.025	<5.0	13	<49	13	180
S9	2/17/2020	Surface	Excavated	<0.215	<0.024	<4.8	1500	1200	2700	7400
		0.5	In-situ	<0.216	<0.024	<4.8	110	90	200	410
BG	2/17/2020	2	Background	--	--	--	--	--	--	<60
Confirmation Sampling Event										
CS1	3/14/2020	1.5	In-situ	<0.216	<0.024	<4.8	<9.6	<48	<62.4	570
CS2		1	In-situ	<0.213	<0.024	<4.7	<9.7	<49	<63.4	230
CS3		1.5	In-situ	<0.211	<0.023	<4.7	<9.6	<48	<62.3	<60
CS4		0.5	In-situ	<0.213	<0.024	<4.7	<9.6	<48	<62.3	490
CS5		1.5	In-situ	<0.215	<0.024	<4.8	30	<47	30	3600
CS6		0.5	In-situ	<0.212	<0.024	<4.7	<9.9	<50	<64.6	1100
CS7		0.5	In-situ	<0.217	<0.024	<4.8	<9.7	<49	<63.5	1300
CS8		0.5	In-situ	<0.221	<0.025	<4.9	<9.4	<47	<61.3	990
CS9		0.5	In-situ	<0.213	<0.024	<4.7	<9.4	<47	<61.1	760
SW1		0-1.5	In-situ	<0.216	<0.024	<4.8	<9.3	<46	<60.1	120
SW2		0-0.5	In-situ	<0.213	<0.024	<4.8	<9.6	<48	<62.4	120
SW3		0-0.5	In-situ	<0.213	<0.024	<4.7	<9.5	<48	<62.2	110
SW4		0-1.5	In-situ	<0.217	<0.024	<4.8	<9.8	<49	<63.6	120

"--" = 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	NRM2004932296
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 372098
Contact Name Melodie Sanjari	Contact Telephone 575-988-8753
Contact email <a href="mailto:msanjari@marathonoil.com">msanjari@marathonoil.com</a>	Incident # (assigned by OCD)
Contact mailing address 4111 S. Tidwell Rd., Carlsbad, NM 8220	

### Location of Release Source

Latitude 32.313848

Longitude -104.202615  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Cypress 1H	Site Type Oil & Gas Facility
Date Release Discovered 2/13/2020	API# (if applicable) 30-015-44046

Unit Letter	Section	Township	Range	County
M	9	23S	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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 16.49	Volume Recovered (bbls) 10
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

Release was caused by a nipple washing out on a near the rotoflex unit. Approximately 16.49 bbls were releases onto the engineered pad. The source was immediately isolated, eliminated and all standing fluids were recovered (10 bbls).

Incident ID	NRM2004932296
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Melodie Sanjari</u>	Title: <u>Environmental Professional</u>
Signature: <u>Melodie Sanjari</u>	Date: <u>2/17/2020</u>
email: <u>msanjari@marathonoil.com</u>	Telephone: <u>575-988-8753</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	NRM2004932296
District RP	
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?	<u>150</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	
District RP	' ' NRM2004932296
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: Melodie Sanjari Title: Environmental Professional

Signature: Melodie Sanjari Date: 4/15/2020

email: msanjari@marathonoil.com Telephone: 575-988-8753

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	' ' NRM2004932296
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: Melodie Sanjari Title: Environmental Professional

Signature: Melodie Sanjari Date: 4/15/2020

email: msanjari@marathonoil.com Telephone: 575-988-8753

### 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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">C_04044 POD1</a>		CUB	ED	3	2	3	09	23S	27E	575504	3575907	589	290	150	140

Average Depth to Water: **150 feet**

Minimum Depth: **150 feet**

Maximum Depth: **150 feet**

**Record Count:** 1

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 575073.63

**Northing (Y):** 3575503.55

**Radius:** 804.67

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

2/29/20 11:22 AM

WATER COLUMN/ AVERAGE DEPTH TO  
WATER

# APPENDIX C

## SAMPLING PROTOCOL, FIELD NOTES & PHOTO LOG





## Sampling Protocol

Representatives from SMA chose the Judgmental Sampling Method as described in EPA's Final Sampling Guidance for SW-846, 2002 to adequately quantify contaminant concentrations on the Cypress #001H Location. The utility of this particular method functions on the sufficient knowledge of the contaminant, which we possess. This design is also useful when identifying the composition of a release, which we have documented. In addition, this sampling design was chosen for this project because of the locations uniform soil type, and the several operational considerations (such as the liner within the battery and the construction of a new facility) that precluded the implementation of a different statistical design.

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of thirteen (13) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

## Sampling Analysis Field Quality Assurance Procedures

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

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



## Field Screening

Location Name: Marathon - Cypress #601 H

Date: 2/17/2020

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:	
S1 - 6"	9:40	1.83 2561 ppm	20.8	PF: 423002 PF: 173605 293	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	- Smells like benzene
S1 - 1'	9:40	0.77 1052 ppm	20.1	PF: 369002 PF: 145905 97	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	- organics in sample
S1 - 1.5'	9:40	2.41 3419 ppm	20.1	PF: 827002 PF: 332005 83	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S1 - 2'	9:40	0.62 843 ppm	19.9	PF: 571002 PF: 234005 51	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S2 - 6"	9:42	2.26 3193 ppm	20.3	184	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S2 - 1'	9:42	0.98 1346 ppm	20.3	126	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S2 - 1.5'	9:43	0.61 812 ppm	20.3	PF: 214005 PF: 546002 8.8	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S2 - 2'	9:44	0.68 917 ppm	20.2	47	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S3 - 6"	9:45	2.94 2.11 ppm	19.9	261	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	



## Field Screening

Location Name: Marathon - Cypress #001 H				Date: 2/17/2020				
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
S3-1'	9:46	2436 ppm 1.72	19.8	157	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S3-1.5'	9:50	1536 ppm 1.10	19.9	PF: 174702 PF: 68905 112	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S3-2'	9:52	0.34 409 ppm	20.6	24	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S4-6"	9:56	2.34 3304 ppm	20.4	151	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S4-1'	9:57	0.41 553 ppm	19.6	50.7	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S4-1.5'	9:57	0.41 553 ppm	19.6	PF: 43602 PF: 17405 15.6	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S4-2'	9:58	0.32 491 ppm	19.7	6.0	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S5-6"	10:00	4031 ppm 2.81	19.3	212	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
S5-1'	10:00	1296 ppm 0.91	19.1	134	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet

W

M



## Field Screening

Location Name: Marathon - Cypress #001 H

Date: 2/17/2020

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:	
S5 - 1.5'	10:02	854 ppm 0.64	20.4	41.2	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S5 - 2'	10:04	166 ppm 0.16	20.2	PF: 47302 PF: 19505 7.7	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S6 - 6"	10:06	724 ppm 0.54	20.0	34.3	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S6 - 1'	10:10	661 ppm 0.50	20.1	27.2	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S6 - 1.5'	10:15	305 ppm 0.25	20.0	8.5	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S6 - 2'	10:20	226 ppm 0.18	19.5	PF: 54602 PF: 23905 14.6	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S7 - surface	10:25	1893 ppm 1.32	19.0	PF: 244102 PF: 255405 2.2	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S7 - 6"	10:30	532 ppm 0.38	19.1	3.4	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S8 - surface	10:35	1354 ppm 0.95	19.1	PF: 536602 PF: 216605 2.3	Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet	
S8 - 6"	10:40	532 ppm 0.38	19.1	2.4					



## Field Screening

Location Name: Marathon - Cypress #001 H

Date: 2/17/2020

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
S9 - surface	1:00	5.09 7330	19.1 ppm	PF: 7911102 PF: 7911105 2.9	Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
S9 - 6"	1:05	0.62 878	19.1 ppm	PF: 13602 PF: 37805 3.3	Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
BG - 2'	2:54	0.10 76	20.3 ppm	2.8	Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
					Light Tan Dark Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	





## Field Screening

Location Name:

Cypress #1

Date:

3/18/20

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
CS1	1420	0.73	22.07		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	Organic Soil no HC odor.
CS3	1401	0.15	21.0		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	"
CS5	1406	2.10	21.1		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	"
CS2	1606	0.43	21.0		Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
CS4	856	0.67	18.1		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
CS6	857	0.54	14.2		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
CS7	854	0.32	18.4		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
CS8	402	0.67	18.8		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
CS9	408	0.42	18.8		Light <del>Dark</del> Tan <del>Brown</del> Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	



# Field Screening

Location Name:

Cypress #1 H

Date:

3/14/20

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
SW1	918	0.43	18.5		Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
SW2	921	0.20	14.1		Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
SW3	924	0.31	14.2		Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
SW4	927	0.22	14.1		Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
					Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
					Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
					Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
					Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet
					Light Tan Gray Yellow	Dark Brown Olive Red	Gravel Sand Rock Silt Clay	Dry Moist Wet

























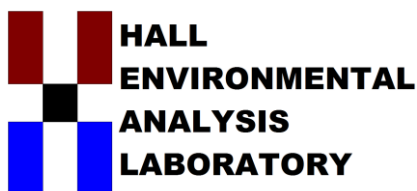




# APPENDIX D

## LABORATORY ANALYTICAL REPORTS





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

February 27, 2020

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

RE: Cypress 001 H

OrderNo.: 2002832

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 31 sample(s) on 2/20/2020 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S1-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 9:40:00 AM

Lab ID: 2002832-001

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	2800	150		mg/Kg	50	2/21/2020 7:18:08 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	3600	170		mg/Kg	20	2/24/2020 4:15:58 PM	50566
Motor Oil Range Organics (MRO)	1200	850		mg/Kg	20	2/24/2020 4:15:58 PM	50566
Surr: DNOP	0	55.1-146	S	%Rec	20	2/24/2020 4:15:58 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	99	4.8		mg/Kg	1	2/21/2020 4:27:52 PM	50562
Surr: BFB	533	66.6-105	S	%Rec	1	2/21/2020 4:27:52 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 4:27:52 PM	50562
Toluene	0.31	0.048		mg/Kg	1	2/21/2020 4:27:52 PM	50562
Ethylbenzene	0.33	0.048		mg/Kg	1	2/21/2020 4:27:52 PM	50562
Xylenes, Total	4.4	0.097		mg/Kg	1	2/21/2020 4:27:52 PM	50562
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	2/21/2020 4:27:52 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S1-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:40:00 AM

Lab ID: 2002832-002

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	860	60		mg/Kg	20	2/20/2020 10:10:14 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	1900	96		mg/Kg	10	2/24/2020 4:40:07 PM	50566
Motor Oil Range Organics (MRO)	810	480		mg/Kg	10	2/24/2020 4:40:07 PM	50566
Surr: DNOP	0	55.1-146	S	%Rec	10	2/24/2020 4:40:07 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	17	4.9		mg/Kg	1	2/21/2020 6:48:24 PM	50562
Surr: BFB	180	66.6-105	S	%Rec	1	2/21/2020 6:48:24 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/21/2020 6:48:24 PM	50562
Toluene	ND	0.049		mg/Kg	1	2/21/2020 6:48:24 PM	50562
Ethylbenzene	ND	0.049		mg/Kg	1	2/21/2020 6:48:24 PM	50562
Xylenes, Total	0.41	0.099		mg/Kg	1	2/21/2020 6:48:24 PM	50562
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	2/21/2020 6:48:24 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S1-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:40:00 AM

Lab ID: 2002832-003

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	1500	60		mg/Kg	20	2/20/2020 11:11:59 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	220	9.9		mg/Kg	1	2/24/2020 5:04:25 PM	50566
Motor Oil Range Organics (MRO)	98	50		mg/Kg	1	2/24/2020 5:04:25 PM	50566
Surr: DNOP	141	55.1-146		%Rec	1	2/24/2020 5:04:25 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2020 7:11:54 PM	50562
Surr: BFB	87.5	66.6-105		%Rec	1	2/21/2020 7:11:54 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 7:11:54 PM	50562
Toluene	ND	0.048		mg/Kg	1	2/21/2020 7:11:54 PM	50562
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2020 7:11:54 PM	50562
Xylenes, Total	ND	0.095		mg/Kg	1	2/21/2020 7:11:54 PM	50562
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	1	2/21/2020 7:11:54 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S1-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:40:00 AM

Lab ID: 2002832-004

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	540	60		mg/Kg	20	2/20/2020 11:24:20 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	280	9.7		mg/Kg	1	2/22/2020 12:39:20 AM	50566
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	2/22/2020 12:39:20 AM	50566
Surr: DNOP	109	55.1-146		%Rec	1	2/22/2020 12:39:20 AM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/21/2020 7:35:22 PM	50562
Surr: BFB	88.0	66.6-105		%Rec	1	2/21/2020 7:35:22 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/21/2020 7:35:22 PM	50562
Toluene	ND	0.049		mg/Kg	1	2/21/2020 7:35:22 PM	50562
Ethylbenzene	ND	0.049		mg/Kg	1	2/21/2020 7:35:22 PM	50562
Xylenes, Total	ND	0.099		mg/Kg	1	2/21/2020 7:35:22 PM	50562
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	2/21/2020 7:35:22 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S2-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 9:42:00 AM

Lab ID: 2002832-005

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	3600	150		mg/Kg	50	2/21/2020 7:30:28 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	3100	180		mg/Kg	20	2/24/2020 5:28:27 PM	50566
Motor Oil Range Organics (MRO)	1300	910		mg/Kg	20	2/24/2020 5:28:27 PM	50566
Surr: DNOP	0	55.1-146	S	%Rec	20	2/24/2020 5:28:27 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	23	4.8		mg/Kg	1	2/21/2020 7:58:37 PM	50562
Surr: BFB	185	66.6-105	S	%Rec	1	2/21/2020 7:58:37 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 7:58:37 PM	50562
Toluene	ND	0.048		mg/Kg	1	2/21/2020 7:58:37 PM	50562
Ethylbenzene	0.049	0.048		mg/Kg	1	2/21/2020 7:58:37 PM	50562
Xylenes, Total	0.56	0.097		mg/Kg	1	2/21/2020 7:58:37 PM	50562
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	2/21/2020 7:58:37 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S2-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:42:00 AM

Lab ID: 2002832-006

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	950	60		mg/Kg	20	2/20/2020 11:49:03 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	820	48		mg/Kg	5	2/24/2020 5:52:35 PM	50566
Motor Oil Range Organics (MRO)	370	240		mg/Kg	5	2/24/2020 5:52:35 PM	50566
Surr: DNOP	118	55.1-146		%Rec	5	2/24/2020 5:52:35 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2020 8:22:05 PM	50562
Surr: BFB	116	66.6-105	S	%Rec	1	2/21/2020 8:22:05 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 8:22:05 PM	50562
Toluene	ND	0.048		mg/Kg	1	2/21/2020 8:22:05 PM	50562
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2020 8:22:05 PM	50562
Xylenes, Total	ND	0.096		mg/Kg	1	2/21/2020 8:22:05 PM	50562
Surr: 4-Bromofluorobenzene	90.2	80-120		%Rec	1	2/21/2020 8:22:05 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S2-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:43:00 AM

Lab ID: 2002832-007

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	370	60		mg/Kg	20	2/21/2020 12:01:22 AM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	21	9.3		mg/Kg	1	2/24/2020 6:16:30 PM	50566
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/24/2020 6:16:30 PM	50566
Surr: DNOP	109	55.1-146		%Rec	1	2/24/2020 6:16:30 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2020 8:45:35 PM	50562
Surr: BFB	86.2	66.6-105		%Rec	1	2/21/2020 8:45:35 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 8:45:35 PM	50562
Toluene	ND	0.048		mg/Kg	1	2/21/2020 8:45:35 PM	50562
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2020 8:45:35 PM	50562
Xylenes, Total	ND	0.096		mg/Kg	1	2/21/2020 8:45:35 PM	50562
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	2/21/2020 8:45:35 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S2-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:44:00 AM

Lab ID: 2002832-008

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	380	60		mg/Kg	20	2/21/2020 12:13:43 AM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/22/2020 2:28:12 AM	50566
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/22/2020 2:28:12 AM	50566
Surr: DNOP	96.8	55.1-146		%Rec	1	2/22/2020 2:28:12 AM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/21/2020 9:09:03 PM	50562
Surr: BFB	84.0	66.6-105		%Rec	1	2/21/2020 9:09:03 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/21/2020 9:09:03 PM	50562
Toluene	ND	0.049		mg/Kg	1	2/21/2020 9:09:03 PM	50562
Ethylbenzene	ND	0.049		mg/Kg	1	2/21/2020 9:09:03 PM	50562
Xylenes, Total	ND	0.099		mg/Kg	1	2/21/2020 9:09:03 PM	50562
Surr: 4-Bromofluorobenzene	91.3	80-120		%Rec	1	2/21/2020 9:09:03 PM	50562

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

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



## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S3-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 9:45:00 AM

Lab ID: 2002832-009

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	2300	150		mg/Kg	50	2/21/2020 7:42:48 PM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	1400	43		mg/Kg	5	2/24/2020 6:40:31 PM	50566
Motor Oil Range Organics (MRO)	510	210		mg/Kg	5	2/24/2020 6:40:31 PM	50566
Surr: DNOP	130	55.1-146		%Rec	5	2/24/2020 6:40:31 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	25	4.9		mg/Kg	1	2/21/2020 9:32:30 PM	50562
Surr: BFB	217	66.6-105	S	%Rec	1	2/21/2020 9:32:30 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 9:32:30 PM	50562
Toluene	ND	0.049		mg/Kg	1	2/21/2020 9:32:30 PM	50562
Ethylbenzene	0.050	0.049		mg/Kg	1	2/21/2020 9:32:30 PM	50562
Xylenes, Total	0.30	0.098		mg/Kg	1	2/21/2020 9:32:30 PM	50562
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	2/21/2020 9:32:30 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S3-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:46:00 AM

Lab ID: 2002832-010

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	2000	60		mg/Kg	20	2/21/2020 12:38:25 AM	50574
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	1000	47		mg/Kg	5	2/24/2020 7:04:27 PM	50566
Motor Oil Range Organics (MRO)	450	230		mg/Kg	5	2/24/2020 7:04:27 PM	50566
Surr: DNOP	135	55.1-146		%Rec	5	2/24/2020 7:04:27 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2020 9:55:54 PM	50562
Surr: BFB	129	66.6-105	S	%Rec	1	2/21/2020 9:55:54 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/21/2020 9:55:54 PM	50562
Toluene	ND	0.050		mg/Kg	1	2/21/2020 9:55:54 PM	50562
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2020 9:55:54 PM	50562
Xylenes, Total	ND	0.099		mg/Kg	1	2/21/2020 9:55:54 PM	50562
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	2/21/2020 9:55:54 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S3-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:50:00 AM

Lab ID: 2002832-011

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	990	59		mg/Kg	20	2/21/2020 12:55:19 PM	50585
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	640	9.6		mg/Kg	1	2/24/2020 7:28:25 PM	50566
Motor Oil Range Organics (MRO)	290	48		mg/Kg	1	2/24/2020 7:28:25 PM	50566
Surr: DNOP	148	55.1-146	S	%Rec	1	2/24/2020 7:28:25 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/21/2020 10:19:16 PM	50562
Surr: BFB	95.4	66.6-105		%Rec	1	2/21/2020 10:19:16 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 10:19:16 PM	50562
Toluene	ND	0.048		mg/Kg	1	2/21/2020 10:19:16 PM	50562
Ethylbenzene	ND	0.048		mg/Kg	1	2/21/2020 10:19:16 PM	50562
Xylenes, Total	ND	0.095		mg/Kg	1	2/21/2020 10:19:16 PM	50562
Surr: 4-Bromofluorobenzene	92.1	80-120		%Rec	1	2/21/2020 10:19:16 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S3-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:52:00 AM

Lab ID: 2002832-012

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	150	59		mg/Kg	20	2/21/2020 1:57:05 PM	50585
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	100	9.7		mg/Kg	1	2/24/2020 8:16:03 PM	50566
Motor Oil Range Organics (MRO)	50	49		mg/Kg	1	2/24/2020 8:16:03 PM	50566
Surr: DNOP	118	55.1-146		%Rec	1	2/24/2020 8:16:03 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2020 11:29:38 PM	50562
Surr: BFB	81.3	66.6-105		%Rec	1	2/21/2020 11:29:38 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/21/2020 11:29:38 PM	50562
Toluene	ND	0.050		mg/Kg	1	2/21/2020 11:29:38 PM	50562
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2020 11:29:38 PM	50562
Xylenes, Total	ND	0.099		mg/Kg	1	2/21/2020 11:29:38 PM	50562
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	2/21/2020 11:29:38 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S4-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 9:56:00 AM

Lab ID: 2002832-013

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	3400	150		mg/Kg	50	2/25/2020 10:59:16 AM	50585
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	700	9.4		mg/Kg	1	2/22/2020 4:17:18 AM	50566
Motor Oil Range Organics (MRO)	330	47		mg/Kg	1	2/22/2020 4:17:18 AM	50566
Surr: DNOP	109	55.1-146		%Rec	1	2/22/2020 4:17:18 AM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	7.1	4.7		mg/Kg	1	2/21/2020 11:53:01 PM	50562
Surr: BFB	128	66.6-105	S	%Rec	1	2/21/2020 11:53:01 PM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/21/2020 11:53:01 PM	50562
Toluene	ND	0.047		mg/Kg	1	2/21/2020 11:53:01 PM	50562
Ethylbenzene	ND	0.047		mg/Kg	1	2/21/2020 11:53:01 PM	50562
Xylenes, Total	0.12	0.094		mg/Kg	1	2/21/2020 11:53:01 PM	50562
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	2/21/2020 11:53:01 PM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S4-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:57:00 AM

Lab ID: 2002832-014

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	230	60		mg/Kg	20	2/21/2020 2:21:47 PM	50585
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	72	9.8		mg/Kg	1	2/24/2020 8:39:49 PM	50566
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2020 8:39:49 PM	50566
Surr: DNOP	118	55.1-146		%Rec	1	2/24/2020 8:39:49 PM	50566
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 12:16:21 AM	50562
Surr: BFB	85.8	66.6-105		%Rec	1	2/22/2020 12:16:21 AM	50562
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/22/2020 12:16:21 AM	50562
Toluene	ND	0.047		mg/Kg	1	2/22/2020 12:16:21 AM	50562
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 12:16:21 AM	50562
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 12:16:21 AM	50562
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	2/22/2020 12:16:21 AM	50562

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S4-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:57:00 AM

Lab ID: 2002832-015

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	230	60		mg/Kg	20	2/24/2020 1:04:25 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	31	9.9		mg/Kg	1	2/25/2020 7:54:09 AM	50579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 7:54:09 AM	50579
Surr: DNOP	69.9	55.1-146		%Rec	1	2/25/2020 7:54:09 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/22/2020 12:39:44 AM	50569
Surr: BFB	85.9	66.6-105		%Rec	1	2/22/2020 12:39:44 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 12:39:44 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 12:39:44 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 12:39:44 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 12:39:44 AM	50569
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	2/22/2020 12:39:44 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S4-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 9:58:00 AM

Lab ID: 2002832-016

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	230	60		mg/Kg	20	2/24/2020 1:16:46 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/25/2020 11:14:21 AM	50579
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/25/2020 11:14:21 AM	50579
Surr: DNOP	80.5	55.1-146		%Rec	1	2/25/2020 11:14:21 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 1:49:44 AM	50569
Surr: BFB	80.2	66.6-105		%Rec	1	2/22/2020 1:49:44 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 1:49:44 AM	50569
Toluene	ND	0.049		mg/Kg	1	2/22/2020 1:49:44 AM	50569
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 1:49:44 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 1:49:44 AM	50569
Surr: 4-Bromofluorobenzene	87.7	80-120		%Rec	1	2/22/2020 1:49:44 AM	50569

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

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



## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S5-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 10:00:00 AM

Lab ID: 2002832-017

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	3500	150		mg/Kg	50	2/25/2020 11:36:20 AM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	2400	92		mg/Kg	10	2/25/2020 9:37:56 AM	50579
Motor Oil Range Organics (MRO)	1200	460		mg/Kg	10	2/25/2020 9:37:56 AM	50579
Surr: DNOP	0	55.1-146	S	%Rec	10	2/25/2020 9:37:56 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	24	5.0		mg/Kg	1	2/22/2020 2:59:37 AM	50569
Surr: BFB	198	66.6-105	S	%Rec	1	2/22/2020 2:59:37 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/22/2020 2:59:37 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 2:59:37 AM	50569
Ethylbenzene	0.066	0.050		mg/Kg	1	2/22/2020 2:59:37 AM	50569
Xylenes, Total	0.91	0.10		mg/Kg	1	2/22/2020 2:59:37 AM	50569
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	2/22/2020 2:59:37 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S5-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:00:00 AM

Lab ID: 2002832-018

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	690	60		mg/Kg	20	2/24/2020 2:30:50 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1100	95		mg/Kg	10	2/25/2020 11:37:58 AM	50579
Motor Oil Range Organics (MRO)	600	470		mg/Kg	10	2/25/2020 11:37:58 AM	50579
Surr: DNOP	0	55.1-146	S	%Rec	10	2/25/2020 11:37:58 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	7.8	5.0		mg/Kg	1	2/22/2020 3:22:58 AM	50569
Surr: BFB	154	66.6-105	S	%Rec	1	2/22/2020 3:22:58 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 3:22:58 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 3:22:58 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 3:22:58 AM	50569
Xylenes, Total	0.15	0.10		mg/Kg	1	2/22/2020 3:22:58 AM	50569
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	2/22/2020 3:22:58 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S5-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:02:00 AM

Lab ID: 2002832-019

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	260	60		mg/Kg	20	2/24/2020 2:43:11 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	94	9.6		mg/Kg	1	2/25/2020 1:19:25 PM	50579
Motor Oil Range Organics (MRO)	52	48		mg/Kg	1	2/25/2020 1:19:25 PM	50579
Surr: DNOP	91.4	55.1-146		%Rec	1	2/25/2020 1:19:25 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 3:46:17 AM	50569
Surr: BFB	86.2	66.6-105		%Rec	1	2/22/2020 3:46:17 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 3:46:17 AM	50569
Toluene	ND	0.049		mg/Kg	1	2/22/2020 3:46:17 AM	50569
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 3:46:17 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 3:46:17 AM	50569
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/22/2020 3:46:17 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S5-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:04:00 AM

Lab ID: 2002832-020

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	100	60		mg/Kg	20	2/24/2020 2:55:32 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	45	9.6		mg/Kg	1	2/25/2020 12:29:18 PM	50579
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/25/2020 12:29:18 PM	50579
Surr: DNOP	82.3	55.1-146		%Rec	1	2/25/2020 12:29:18 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/22/2020 4:09:35 AM	50569
Surr: BFB	79.2	66.6-105		%Rec	1	2/22/2020 4:09:35 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 4:09:35 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 4:09:35 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 4:09:35 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 4:09:35 AM	50569
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	2/22/2020 4:09:35 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S6-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 10:06:00 AM

Lab ID: 2002832-021

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	500	60		mg/Kg	20	2/24/2020 3:07:53 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	460	9.8		mg/Kg	1	2/25/2020 1:02:16 PM	50579
Motor Oil Range Organics (MRO)	200	49		mg/Kg	1	2/25/2020 1:02:16 PM	50579
Surr: DNOP	101	55.1-146		%Rec	1	2/25/2020 1:02:16 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 4:32:53 AM	50569
Surr: BFB	86.8	66.6-105		%Rec	1	2/22/2020 4:32:53 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 4:32:53 AM	50569
Toluene	ND	0.049		mg/Kg	1	2/22/2020 4:32:53 AM	50569
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 4:32:53 AM	50569
Xylenes, Total	ND	0.098		mg/Kg	1	2/22/2020 4:32:53 AM	50569
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	2/22/2020 4:32:53 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S6-1'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:10:00 AM

Lab ID: 2002832-022

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	340	60		mg/Kg	20	2/24/2020 3:20:14 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	230	9.6		mg/Kg	1	2/25/2020 12:55:18 PM	50579
Motor Oil Range Organics (MRO)	100	48		mg/Kg	1	2/25/2020 12:55:18 PM	50579
Surr: DNOP	100	55.1-146		%Rec	1	2/25/2020 12:55:18 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 6:52:32 AM	50569
Surr: BFB	78.4	66.6-105		%Rec	1	2/22/2020 6:52:32 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 6:52:32 AM	50569
Toluene	ND	0.049		mg/Kg	1	2/22/2020 6:52:32 AM	50569
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 6:52:32 AM	50569
Xylenes, Total	ND	0.098		mg/Kg	1	2/22/2020 6:52:32 AM	50569
Surr: 4-Bromofluorobenzene	84.7	80-120		%Rec	1	2/22/2020 6:52:32 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S6-1.5'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:15:00 AM

Lab ID: 2002832-023

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	150	60		mg/Kg	20	2/24/2020 3:32:34 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	11	9.7		mg/Kg	1	2/25/2020 1:46:18 PM	50579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 1:46:18 PM	50579
Surr: DNOP	79.2	55.1-146		%Rec	1	2/25/2020 1:46:18 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/22/2020 7:15:48 AM	50569
Surr: BFB	81.9	66.6-105		%Rec	1	2/22/2020 7:15:48 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 7:15:48 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 7:15:48 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 7:15:48 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 7:15:48 AM	50569
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	2/22/2020 7:15:48 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S6-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 10:20:00 AM

Lab ID: 2002832-024

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	61	60		mg/Kg	20	2/24/2020 3:44:55 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/25/2020 1:43:42 PM	50579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 1:43:42 PM	50579
Surr: DNOP	93.0	55.1-146		%Rec	1	2/25/2020 1:43:42 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 7:39:06 AM	50569
Surr: BFB	80.5	66.6-105		%Rec	1	2/22/2020 7:39:06 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 7:39:06 AM	50569
Toluene	ND	0.048		mg/Kg	1	2/22/2020 7:39:06 AM	50569
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 7:39:06 AM	50569
Xylenes, Total	ND	0.097		mg/Kg	1	2/22/2020 7:39:06 AM	50569
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	2/22/2020 7:39:06 AM	50569

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

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



## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S7-Surface

Project: Cypress 001 H

Collection Date: 2/17/2020 10:25:00 AM

Lab ID: 2002832-025

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	1400	60		mg/Kg	20	2/24/2020 4:21:57 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1500	94		mg/Kg	10	2/25/2020 12:06:02 PM	50579
Motor Oil Range Organics (MRO)	1200	470		mg/Kg	10	2/25/2020 12:06:02 PM	50579
Surr: DNOP	0	55.1-146	S	%Rec	10	2/25/2020 12:06:02 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 8:02:21 AM	50569
Surr: BFB	75.8	66.6-105		%Rec	1	2/22/2020 8:02:21 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 8:02:21 AM	50569
Toluene	ND	0.047		mg/Kg	1	2/22/2020 8:02:21 AM	50569
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 8:02:21 AM	50569
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 8:02:21 AM	50569
Surr: 4-Bromofluorobenzene	83.5	80-120		%Rec	1	2/22/2020 8:02:21 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S7-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 10:30:00 AM

Lab ID: 2002832-026

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	170	60		mg/Kg	20	2/24/2020 4:34:18 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	35	9.3		mg/Kg	1	2/25/2020 2:07:40 PM	50579
Motor Oil Range Organics (MRO)	56	47		mg/Kg	1	2/25/2020 2:07:40 PM	50579
Surr: DNOP	97.9	55.1-146		%Rec	1	2/25/2020 2:07:40 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/22/2020 8:25:38 AM	50569
Surr: BFB	81.0	66.6-105		%Rec	1	2/22/2020 8:25:38 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 8:25:38 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 8:25:38 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 8:25:38 AM	50569
Xylenes, Total	ND	0.10		mg/Kg	1	2/22/2020 8:25:38 AM	50569
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	2/22/2020 8:25:38 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S8-Surface

Project: Cypress 001 H

Collection Date: 2/17/2020 10:35:00 AM

Lab ID: 2002832-027

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	1100	60		mg/Kg	20	2/24/2020 4:46:39 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1300	97		mg/Kg	10	2/25/2020 12:48:30 PM	50579
Motor Oil Range Organics (MRO)	890	480		mg/Kg	10	2/25/2020 12:48:30 PM	50579
Surr: DNOP	0	55.1-146	S	%Rec	10	2/25/2020 12:48:30 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 8:48:57 AM	50569
Surr: BFB	78.3	66.6-105		%Rec	1	2/22/2020 8:48:57 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	2/22/2020 8:48:57 AM	50569
Toluene	ND	0.047		mg/Kg	1	2/22/2020 8:48:57 AM	50569
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 8:48:57 AM	50569
Xylenes, Total	ND	0.093		mg/Kg	1	2/22/2020 8:48:57 AM	50569
Surr: 4-Bromofluorobenzene	85.5	80-120		%Rec	1	2/22/2020 8:48:57 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S8-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 10:40:00 AM

Lab ID: 2002832-028

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	180	60		mg/Kg	20	2/24/2020 4:58:59 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	13	9.8		mg/Kg	1	2/25/2020 1:59:10 PM	50579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 1:59:10 PM	50579
Surr: DNOP	91.8	55.1-146		%Rec	1	2/25/2020 1:59:10 PM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/22/2020 9:12:19 AM	50569
Surr: BFB	79.0	66.6-105		%Rec	1	2/22/2020 9:12:19 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 9:12:19 AM	50569
Toluene	ND	0.050		mg/Kg	1	2/22/2020 9:12:19 AM	50569
Ethylbenzene	ND	0.050		mg/Kg	1	2/22/2020 9:12:19 AM	50569
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 9:12:19 AM	50569
Surr: 4-Bromofluorobenzene	87.4	80-120		%Rec	1	2/22/2020 9:12:19 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S9-Surface

Project: Cypress 001 H

Collection Date: 2/17/2020 1:00:00 PM

Lab ID: 2002832-029

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	7400	300		mg/Kg	100	2/25/2020 11:48:42 AM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	1500	95		mg/Kg	10	2/25/2020 10:03:03 AM	50579
Motor Oil Range Organics (MRO)	1200	480		mg/Kg	10	2/25/2020 10:03:03 AM	50579
Surr: DNOP	0	55.1-146	S	%Rec	10	2/25/2020 10:03:03 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 9:35:41 AM	50569
Surr: BFB	80.5	66.6-105		%Rec	1	2/22/2020 9:35:41 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/22/2020 9:35:41 AM	50569
Toluene	ND	0.048		mg/Kg	1	2/22/2020 9:35:41 AM	50569
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 9:35:41 AM	50569
Xylenes, Total	ND	0.095		mg/Kg	1	2/22/2020 9:35:41 AM	50569
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/22/2020 9:35:41 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: S9-6"

Project: Cypress 001 H

Collection Date: 2/17/2020 1:05:00 PM

Lab ID: 2002832-030

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	410	60		mg/Kg	20	2/24/2020 5:23:41 PM	50612
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	110	9.6		mg/Kg	1	2/25/2020 10:26:27 AM	50579
Motor Oil Range Organics (MRO)	90	48		mg/Kg	1	2/25/2020 10:26:27 AM	50579
Surr: DNOP	92.6	55.1-146		%Rec	1	2/25/2020 10:26:27 AM	50579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 9:59:07 AM	50569
Surr: BFB	82.8	66.6-105		%Rec	1	2/22/2020 9:59:07 AM	50569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 9:59:07 AM	50569
Toluene	ND	0.048		mg/Kg	1	2/22/2020 9:59:07 AM	50569
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 9:59:07 AM	50569
Xylenes, Total	ND	0.096		mg/Kg	1	2/22/2020 9:59:07 AM	50569
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	2/22/2020 9:59:07 AM	50569

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

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

## Analytical Report

Lab Order 2002832

Date Reported: 2/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: BG-2'

Project: Cypress 001 H

Collection Date: 2/17/2020 2:54:00 PM

Lab ID: 2002832-031

Matrix: SOIL

Received Date: 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	2/24/2020 6:19:58 PM	50639

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

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

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

WO#: 2002832

27-Feb-20

**Client:** Souder, Miller & Associates**Project:** Cypress 001 H

Sample ID: <b>MB-50574</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50574</b>	RunNo: <b>66684</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/20/2020</b>	SeqNo: <b>2292671</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50574</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50574</b>	RunNo: <b>66684</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/20/2020</b>	SeqNo: <b>2292672</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	90	110			

Sample ID: <b>MB-50585</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50585</b>	RunNo: <b>66715</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294149</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50585</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50585</b>	RunNo: <b>66715</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294150</b> Units: <b>mg/Kg</b>								
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			

Sample ID: <b>MB-50612</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50612</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295449</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50612</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50612</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295450</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2002832

27-Feb-20

Client: Souder, Miller &amp; Associates

Project: Cypress 001 H

Sample ID: <b>MB-50639</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50639</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295479</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50639</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50639</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295481</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

### Qualifiers:

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

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

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

WO#: 2002832

27-Feb-20

**Client:** Souder, Miller & Associates**Project:** Cypress 001 H

Sample ID: <b>LCS-50566</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>50566</b>		RunNo: <b>66705</b>							
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>		SeqNo: <b>2293857</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	10	50.00	0	128	70	130			
Surr: DNOP	5.7		5.000		115	55.1	146			

Sample ID: <b>MB-50566</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>50566</b>		RunNo: <b>66705</b>							
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>		SeqNo: <b>2293858</b>		Units: <b>mg/Kg</b>					
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		110	55.1	146			

Sample ID: <b>MB-50579</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>50579</b>		RunNo: <b>66740</b>							
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/25/2020</b>		SeqNo: <b>2295417</b>		Units: <b>mg/Kg</b>					
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	6.3		10.00		63.0	55.1	146			

Sample ID: <b>LCS-50579</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>50579</b>		RunNo: <b>66778</b>							
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/25/2020</b>		SeqNo: <b>2295848</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	70	130			
Surr: DNOP	4.6		5.000		92.3	55.1	146			

Sample ID: <b>2002832-015AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>S4-1.5'</b>	Batch ID: <b>50579</b>		RunNo: <b>66740</b>							
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/25/2020</b>		SeqNo: <b>2296982</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	79	9.7	48.36	31.34	99.2	47.4	136			
Surr: DNOP	4.3		4.836		88.0	55.1	146			

**Qualifiers:**

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002832

27-Feb-20

Client: Souder, Miller & Associates

Project: Cypress 001 H

Sample ID: 2002832-015AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: S4-1.5'		Batch ID: 50579		RunNo: 66740						
Prep Date: 2/21/2020		Analysis Date: 2/25/2020		SeqNo: 2296983		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	81	9.3	46.38	31.34	108	47.4	136	2.56	43.4	
Surr: DNOP	4.1		4.638		88.6	55.1	146	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 Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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

WO#: 2002832

27-Feb-20

**Client:** Souder, Miller & Associates**Project:** Cypress 001 H

Sample ID: <b>mb-50562</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>50562</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>			SeqNo: <b>2293722</b>		Units: <b>mg/Kg</b>				
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		90.4	66.6	105			

Sample ID: <b>lcs-50562</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>50562</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>			SeqNo: <b>2293723</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.9	80	120			
Surr: BFB	880		1000		87.8	66.6	105			

Sample ID: <b>mb-50569</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>50569</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>			SeqNo: <b>2293746</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.1	66.6	105			

Sample ID: <b>lcs-50569</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>50569</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>			SeqNo: <b>2293747</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	900		1000		89.7	66.6	105			

Sample ID: <b>2002832-015ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>S4-1.5'</b>	Batch ID: <b>50569</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>			SeqNo: <b>2293749</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.58	0	98.9	69.1	142			
Surr: BFB	890		983.3		90.7	66.6	105			

Sample ID: <b>2002832-015amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>S4-1.5'</b>	Batch ID: <b>50569</b>			RunNo: <b>66724</b>						
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>			SeqNo: <b>2293750</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002832

27-Feb-20

Client: Souder, Miller & Associates

Project: Cypress 001 H

Sample ID: 2002832-015amsd		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: S4-1.5'		Batch ID: 50569		RunNo: 66724						
Prep Date: 2/20/2020		Analysis Date: 2/22/2020		SeqNo: 2293750		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.70	0	106	69.1	142	7.67	20	
Surr: BFB	910		988.1		92.2	66.6	105	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 Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

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

WO#: 2002832

27-Feb-20

**Client:** Souder, Miller & Associates**Project:** Cypress 001 H

Sample ID: <b>mb-50562</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50562</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293782</b> Units: <b>mg/Kg</b>								
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	0.93		1.000		93.2	80	120			

Sample ID: <b>LCS-50562</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50562</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293783</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.5	80	120			
Toluene	0.97	0.050	1.000	0	96.8	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	80	120			

Sample ID: <b>2002832-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S1-6"</b>	Batch ID: <b>50562</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293785</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9597	0	108	78.5	119			
Toluene	1.4	0.048	0.9597	0.3135	112	75.7	123			
Ethylbenzene	1.4	0.048	0.9597	0.3264	116	74.3	126			
Xylenes, Total	7.8	0.096	2.879	4.440	116	72.9	130			
Surr: 4-Bromofluorobenzene	1.1		0.9597		116	80	120			

Sample ID: <b>2002832-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S1-6"</b>	Batch ID: <b>50562</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293786</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9940	0	101	78.5	119	3.38	20	
Toluene	1.3	0.050	0.9940	0.3135	98.0	75.7	123	7.39	20	
Ethylbenzene	1.3	0.050	0.9940	0.3264	98.8	74.3	126	9.50	20	
Xylenes, Total	6.8	0.099	2.982	4.440	78.8	72.9	130	13.7	20	
Surr: 4-Bromofluorobenzene	1.1		0.9940		108	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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

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

WO#: 2002832

27-Feb-20

**Client:** Souder, Miller & Associates**Project:** Cypress 001 H

Sample ID: <b>mb-50569</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50569</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293800</b>			Units: <b>mg/Kg</b>					
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	0.93		1.000		93.0	80	120			

Sample ID: <b>LCS-50569</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50569</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293801</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.1	80	120			
Toluene	0.96	0.050	1.000	0	96.0	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.2	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120			

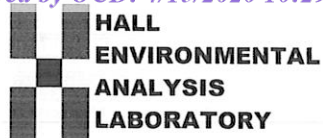
Sample ID: <b>2002832-016ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S4-2'</b>	Batch ID: <b>50569</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293804</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9901	0	101	78.5	119			
Toluene	1.1	0.050	0.9901	0.01419	106	75.7	123			
Ethylbenzene	1.1	0.050	0.9901	0	112	74.3	126			
Xylenes, Total	3.4	0.099	2.970	0.02227	112	72.9	130			
Surr: 4-Bromofluorobenzene	0.89		0.9901		89.7	80	120			

Sample ID: <b>2002832-016amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S4-2'</b>	Batch ID: <b>50569</b>	RunNo: <b>66724</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293805</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9634	0	106	78.5	119	2.13	20	
Toluene	1.1	0.048	0.9634	0.01419	110	75.7	123	1.01	20	
Ethylbenzene	1.1	0.048	0.9634	0	115	74.3	126	0.210	20	
Xylenes, Total	3.4	0.096	2.890	0.02227	115	72.9	130	0.114	20	
Surr: 4-Bromofluorobenzene	0.86		0.9634		89.1	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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



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: 2002832

RcptNo: 1

Received By: Juan Rojas 2/20/2020 9:00:00 AM

Completed By: Leah Baca 2/20/2020 9:46:27 AM

Reviewed By: DAD 2/20/20

Leah Baca

### Chain of Custody

1. Is Chain of Custody sufficiently 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
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: JR 2/20/20

### 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good				

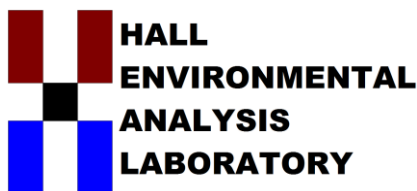












Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 25, 2020

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

RE: Cypress 1H

OrderNo.: 2003758

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/17/2020 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 1

Project: Cypress 1H

Collection Date: 3/14/2020 2:20:00 PM

Lab ID: 2003758-001

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	570	61		mg/Kg	20	3/22/2020 11:00:48 AM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/18/2020 5:42:51 PM	51159
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/18/2020 5:42:51 PM	51159
Surr: DNOP	98.9	55.1-146		%Rec	1	3/18/2020 5:42:51 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2020 4:17:42 PM	51153
Surr: BFB	97.6	66.6-105		%Rec	1	3/20/2020 4:17:42 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 4:17:42 PM	51153
Toluene	ND	0.048		mg/Kg	1	3/20/2020 4:17:42 PM	51153
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2020 4:17:42 PM	51153
Xylenes, Total	ND	0.096		mg/Kg	1	3/20/2020 4:17:42 PM	51153
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	3/20/2020 4:17:42 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 2

Project: Cypress 1H

Collection Date: 3/14/2020 4:06:00 PM

Lab ID: 2003758-002

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	230	60		mg/Kg	20	3/22/2020 11:13:13 AM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/18/2020 7:17:15 PM	51159
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/18/2020 7:17:15 PM	51159
Surr: DNOP	96.7	55.1-146		%Rec	1	3/18/2020 7:17:15 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 4:41:07 PM	51153
Surr: BFB	95.3	66.6-105		%Rec	1	3/20/2020 4:41:07 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 4:41:07 PM	51153
Toluene	ND	0.047		mg/Kg	1	3/20/2020 4:41:07 PM	51153
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 4:41:07 PM	51153
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 4:41:07 PM	51153
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	3/20/2020 4:41:07 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 3

Project: Cypress 1H

Collection Date: 3/14/2020 2:01:00 PM

Lab ID: 2003758-003

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	3/22/2020 11:25:37 AM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/18/2020 7:40:48 PM	51159
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/18/2020 7:40:48 PM	51159
Surr: DNOP	104	55.1-146		%Rec	1	3/18/2020 7:40:48 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 5:04:41 PM	51153
Surr: BFB	96.5	66.6-105		%Rec	1	3/20/2020 5:04:41 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	3/20/2020 5:04:41 PM	51153
Toluene	ND	0.047		mg/Kg	1	3/20/2020 5:04:41 PM	51153
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 5:04:41 PM	51153
Xylenes, Total	ND	0.094		mg/Kg	1	3/20/2020 5:04:41 PM	51153
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	3/20/2020 5:04:41 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 4

Project: Cypress 1H

Collection Date: 3/14/2020 8:50:00 AM

Lab ID: 2003758-004

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	490	60		mg/Kg	20	3/22/2020 11:38:01 AM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/18/2020 8:04:20 PM	51159
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/18/2020 8:04:20 PM	51159
Surr: DNOP	102	55.1-146		%Rec	1	3/18/2020 8:04:20 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 6:14:49 PM	51153
Surr: BFB	99.3	66.6-105		%Rec	1	3/20/2020 6:14:49 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 6:14:49 PM	51153
Toluene	ND	0.047		mg/Kg	1	3/20/2020 6:14:49 PM	51153
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 6:14:49 PM	51153
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 6:14:49 PM	51153
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	3/20/2020 6:14:49 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 5

Project: Cypress 1H

Collection Date: 3/14/2020 2:06:00 PM

Lab ID: 2003758-005

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	3500	150		mg/Kg	50	3/24/2020 4:35:11 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	30	9.4		mg/Kg	1	3/18/2020 8:27:50 PM	51159
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/18/2020 8:27:50 PM	51159
Surr: DNOP	102	55.1-146		%Rec	1	3/18/2020 8:27:50 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2020 6:38:09 PM	51153
Surr: BFB	96.3	66.6-105		%Rec	1	3/20/2020 6:38:09 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 6:38:09 PM	51153
Toluene	ND	0.048		mg/Kg	1	3/20/2020 6:38:09 PM	51153
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2020 6:38:09 PM	51153
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 6:38:09 PM	51153
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	3/20/2020 6:38:09 PM	51153

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

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



## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 6

Project: Cypress 1H

Collection Date: 3/14/2020 8:57:00 AM

Lab ID: 2003758-006

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	1100	60		mg/Kg	20	3/22/2020 12:02:50 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/18/2020 8:51:21 PM	51159
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/18/2020 8:51:21 PM	51159
Surr: DNOP	99.7	55.1-146		%Rec	1	3/18/2020 8:51:21 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 7:01:34 PM	51153
Surr: BFB	98.1	66.6-105		%Rec	1	3/20/2020 7:01:34 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 7:01:34 PM	51153
Toluene	ND	0.047		mg/Kg	1	3/20/2020 7:01:34 PM	51153
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 7:01:34 PM	51153
Xylenes, Total	ND	0.094		mg/Kg	1	3/20/2020 7:01:34 PM	51153
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	3/20/2020 7:01:34 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 7

Project: Cypress 1H

Collection Date: 3/14/2020 8:59:00 AM

Lab ID: 2003758-007

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	1300	60		mg/Kg	20	3/22/2020 12:15:15 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/18/2020 9:14:52 PM	51159
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/18/2020 9:14:52 PM	51159
Surr: DNOP	104	55.1-146		%Rec	1	3/18/2020 9:14:52 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2020 7:25:09 PM	51153
Surr: BFB	99.3	66.6-105		%Rec	1	3/20/2020 7:25:09 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 7:25:09 PM	51153
Toluene	ND	0.048		mg/Kg	1	3/20/2020 7:25:09 PM	51153
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2020 7:25:09 PM	51153
Xylenes, Total	ND	0.097		mg/Kg	1	3/20/2020 7:25:09 PM	51153
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	3/20/2020 7:25:09 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 8

Project: Cypress 1H

Collection Date: 3/14/2020 9:02:00 AM

Lab ID: 2003758-008

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	990	60		mg/Kg	20	3/22/2020 12:27:39 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/18/2020 9:38:23 PM	51159
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/18/2020 9:38:23 PM	51159
Surr: DNOP	98.1	55.1-146		%Rec	1	3/18/2020 9:38:23 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/20/2020 7:48:42 PM	51153
Surr: BFB	93.4	66.6-105		%Rec	1	3/20/2020 7:48:42 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/20/2020 7:48:42 PM	51153
Toluene	ND	0.049		mg/Kg	1	3/20/2020 7:48:42 PM	51153
Ethylbenzene	ND	0.049		mg/Kg	1	3/20/2020 7:48:42 PM	51153
Xylenes, Total	ND	0.098		mg/Kg	1	3/20/2020 7:48:42 PM	51153
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	3/20/2020 7:48:42 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: CS 9

Project: Cypress 1H

Collection Date: 3/14/2020 9:08:00 AM

Lab ID: 2003758-009

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	760	60		mg/Kg	20	3/22/2020 12:40:04 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/18/2020 10:01:51 PM	51159
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/18/2020 10:01:51 PM	51159
Surr: DNOP	99.9	55.1-146		%Rec	1	3/18/2020 10:01:51 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 8:12:11 PM	51153
Surr: BFB	96.7	66.6-105		%Rec	1	3/20/2020 8:12:11 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 8:12:11 PM	51153
Toluene	ND	0.047		mg/Kg	1	3/20/2020 8:12:11 PM	51153
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 8:12:11 PM	51153
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 8:12:11 PM	51153
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	3/20/2020 8:12:11 PM	51153

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: SW 1

Project: Cypress 1H

Collection Date: 3/14/2020 9:18:00 AM

Lab ID: 2003758-010

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	120	60		mg/Kg	20	3/22/2020 1:17:17 PM	51251
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/18/2020 10:25:19 PM	51159
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/18/2020 10:25:19 PM	51159
Surr: DNOP	102	55.1-146		%Rec	1	3/18/2020 10:25:19 PM	51159
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2020 8:35:41 PM	51153
Surr: BFB	98.5	66.6-105		%Rec	1	3/20/2020 8:35:41 PM	51153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 8:35:41 PM	51153
Toluene	ND	0.048		mg/Kg	1	3/20/2020 8:35:41 PM	51153
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2020 8:35:41 PM	51153
Xylenes, Total	ND	0.096		mg/Kg	1	3/20/2020 8:35:41 PM	51153
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	3/20/2020 8:35:41 PM	51153

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

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



## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: SW 2

Project: Cypress 1H

Collection Date: 3/14/2020 9:21:00 AM

Lab ID: 2003758-011

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	120	60		mg/Kg	20	3/22/2020 1:29:42 PM	51251
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 6:34:39 PM	51154
Surr: BFB	99.6	70-130		%Rec	1	3/20/2020 6:34:39 PM	51154
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>CLP</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/18/2020 10:48:45 PM	51159
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/18/2020 10:48:45 PM	51159
Surr: DNOP	101	55.1-146		%Rec	1	3/18/2020 10:48:45 PM	51159
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	3/20/2020 6:34:39 PM	51154
Toluene	ND	0.047		mg/Kg	1	3/20/2020 6:34:39 PM	51154
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 6:34:39 PM	51154
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 6:34:39 PM	51154
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%Rec	1	3/20/2020 6:34:39 PM	51154
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	1	3/20/2020 6:34:39 PM	51154
Surr: Dibromofluoromethane	97.6	70-130		%Rec	1	3/20/2020 6:34:39 PM	51154
Surr: Toluene-d8	99.0	70-130		%Rec	1	3/20/2020 6:34:39 PM	51154

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: SW 3

Project: Cypress 1H

Collection Date: 3/14/2020 9:24:00 AM

Lab ID: 2003758-012

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	110	60		mg/Kg	20	3/22/2020 1:42:06 PM	51251
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/20/2020 8:00:20 PM	51154
Surr: BFB	95.0	70-130		%Rec	1	3/20/2020 8:00:20 PM	51154
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/18/2020 11:12:13 PM	51159
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/18/2020 11:12:13 PM	51159
Surr: DNOP	105	55.1-146		%Rec	1	3/18/2020 11:12:13 PM	51159
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	3/20/2020 8:00:20 PM	51154
Toluene	ND	0.047		mg/Kg	1	3/20/2020 8:00:20 PM	51154
Ethylbenzene	ND	0.047		mg/Kg	1	3/20/2020 8:00:20 PM	51154
Xylenes, Total	ND	0.095		mg/Kg	1	3/20/2020 8:00:20 PM	51154
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%Rec	1	3/20/2020 8:00:20 PM	51154
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	3/20/2020 8:00:20 PM	51154
Surr: Dibromofluoromethane	97.9	70-130		%Rec	1	3/20/2020 8:00:20 PM	51154
Surr: Toluene-d8	98.9	70-130		%Rec	1	3/20/2020 8:00:20 PM	51154

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

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

## Analytical Report

Lab Order 2003758

Date Reported: 3/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller &amp; Associates

Client Sample ID: SW 4

Project: Cypress 1H

Collection Date: 3/14/2020 9:27:00 AM

Lab ID: 2003758-013

Matrix: SOIL

Received Date: 3/17/2020 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	120	59		mg/Kg	20	3/22/2020 1:54:30 PM	51251
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2020 9:25:55 PM	51154
Surr: BFB	99.7	70-130		%Rec	1	3/20/2020 9:25:55 PM	51154
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/18/2020 11:35:41 PM	51159
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/18/2020 11:35:41 PM	51159
Surr: DNOP	103	55.1-146		%Rec	1	3/18/2020 11:35:41 PM	51159
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	3/20/2020 9:25:55 PM	51154
Toluene	ND	0.048		mg/Kg	1	3/20/2020 9:25:55 PM	51154
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2020 9:25:55 PM	51154
Xylenes, Total	ND	0.097		mg/Kg	1	3/20/2020 9:25:55 PM	51154
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	3/20/2020 9:25:55 PM	51154
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	3/20/2020 9:25:55 PM	51154
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	3/20/2020 9:25:55 PM	51154
Surr: Toluene-d8	100	70-130		%Rec	1	3/20/2020 9:25:55 PM	51154

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

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

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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>MB-51251</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51251</b>	RunNo: <b>67489</b>								
Prep Date: <b>3/20/2020</b>	Analysis Date: <b>3/22/2020</b>	SeqNo: <b>2329146</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-51251</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51251</b>	RunNo: <b>67489</b>								
Prep Date: <b>3/20/2020</b>	Analysis Date: <b>3/22/2020</b>	SeqNo: <b>2329147</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

**Qualifiers:**

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

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

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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>MB-51159</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51159</b>	RunNo: <b>67371</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324944</b> Units: <b>mg/Kg</b>								
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	9.5		10.00		94.9	55.1	146			

Sample ID: <b>LCS-51159</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51159</b>	RunNo: <b>67371</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324945</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.8	70	130			
Surr: DNOP	4.6		5.000		92.6	55.1	146			

Sample ID: <b>2003758-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>CS 1</b>	Batch ID: <b>51159</b>	RunNo: <b>67371</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324948</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.4	47.17	0	96.9	47.4	136			
Surr: DNOP	4.8		4.717		102	55.1	146			

Sample ID: <b>2003758-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>CS 1</b>	Batch ID: <b>51159</b>	RunNo: <b>67371</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324949</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.6	48.08	0	92.8	47.4	136	2.50	43.4	
Surr: DNOP	4.8		4.808		99.9	55.1	146	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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



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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>mb-51153</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51153</b>	RunNo: <b>67436</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/19/2020</b>	SeqNo: <b>2326222</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.0	66.6	105			

Sample ID: <b>lcs-51153</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51153</b>	RunNo: <b>67436</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/19/2020</b>	SeqNo: <b>2326223</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.7	80	120			
Surr: BFB	1000		1000		103	66.6	105			

**Qualifiers:**

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

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

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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>mb-51153</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51153</b>	RunNo: <b>67382</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324686</b>	Units: <b>mg/Kg</b>							
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	0.90		1.000		89.7	80	120			

Sample ID: <b>lcs-51153</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51153</b>	RunNo: <b>67382</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/18/2020</b>	SeqNo: <b>2324687</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.6	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.2	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		88.1	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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

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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>ics-51154</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>51154</b>	RunNo: <b>67458</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>	SeqNo: <b>2327300</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: <b>mb-51154</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51154</b>	RunNo: <b>67458</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>	SeqNo: <b>2327301</b>	Units: <b>mg/Kg</b>							
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: 1,2-Dichloroethane-d4	0.46		0.5000		91.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.0	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Sample ID: <b>2003758-011ams</b>	SampType: <b>MS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>SW 2</b>	Batch ID: <b>51154</b>	RunNo: <b>67458</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>	SeqNo: <b>2328391</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.024	0.9425	0	85.1	80	120			
Toluene	0.96	0.047	0.9425	0	102	80	120			
Ethylbenzene	1.0	0.047	0.9425	0	106	80	120			
Xylenes, Total	3.0	0.094	2.828	0	106	80	120			
Surr: 4-Bromofluorobenzene	0.47		0.4713		99.7	70	130			
Surr: Toluene-d8	0.47		0.4713		101	70	130			

Sample ID: <b>2003758-011amsd</b>	SampType: <b>MSD4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>SW 2</b>	Batch ID: <b>51154</b>	RunNo: <b>67458</b>								
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>	SeqNo: <b>2328392</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.023	0.9363	0	84.7	80	120	1.11	20	
Toluene	0.95	0.047	0.9363	0	101	80	120	1.46	20	

**Qualifiers:**

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2003758

25-Mar-20

Client: Souder, Miller & Associates

Project: Cypress 1H

Sample ID: 2003758-011amsd		SampType: MSD4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: SW 2		Batch ID: 51154		RunNo: 67458						
Prep Date: 3/17/2020		Analysis Date: 3/20/2020		SeqNo: 2328392		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	0.97	0.047	0.9363	0	103	80	120	3.44	20	
Xylenes, Total	2.9	0.094	2.809	0	105	80	120	2.22	20	
Surr: 4-Bromofluorobenzene	0.46		0.4682		98.1	70	130	0	0	
Surr: Toluene-d8	0.46		0.4682		99.0	70	130	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 Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

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

WO#: 2003758

25-Mar-20

**Client:** Souder, Miller & Associates**Project:** Cypress 1H

Sample ID: <b>lcs-51154</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>51154</b>			RunNo: <b>67458</b>						
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>			SeqNo: <b>2327313</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.6	70	130			
Surr: BFB	490		500.0		97.8	70	130			

Sample ID: <b>mb-51154</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>51154</b>			RunNo: <b>67458</b>						
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>			SeqNo: <b>2327314</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	470		500.0		94.2	70	130			

Sample ID: <b>2003758-012ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>SW 3</b>	Batch ID: <b>51154</b>			RunNo: <b>67458</b>						
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>			SeqNo: <b>2328416</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.7	23.32	0	77.7	70	130			
Surr: BFB	460		466.4		98.6	70	130			

Sample ID: <b>2003758-012amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>SW 3</b>	Batch ID: <b>51154</b>			RunNo: <b>67458</b>						
Prep Date: <b>3/17/2020</b>	Analysis Date: <b>3/20/2020</b>			SeqNo: <b>2328417</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.8	24.04	0	80.7	70	130	6.77	20	
Surr: BFB	470		480.8		98.2	70	130	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 Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

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



## Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 2003758

RcptNo: 1

Received By: Desiree Dominguez

3/17/2020 8:20:00 AM

Completed By: Anne Thorne

3/17/2020 10:53:32 AM

Reviewed By: LB

3/17/20

EDZ  
Anne Thorne

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒  
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:

(&lt;2 or &gt;12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: DAD 3/17/20

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	4.5	Good	Yes			
3	1.0	Good	Yes			
4	1.8	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 turn

Project Name:

Cypress #1H

Project #:

Project Manager:

Asmy Maxwell

Sampler:

CAAOn Ice: ☒ Yes ☐ No# of Coolers: 4Cooler Temp (including CP): See Remarks (°C)

Container Type and #

402

Preservative Type

HEAL No.

2003758

Date

3/16/20

Time

1420

Matrix

Soil

Sample Name

CS1

Date

3/16/20

Time

1606

Matrix

Soil

Sample Name

CS2

Date

3/16/20

Time

1401

Matrix

Soil

Sample Name

CS3

Date

3/16/20

Time

1401

Matrix

Soil

Sample Name

CS4

Date

3/16/20

Time

1401

Matrix

Soil

Sample Name

CS5

Date

3/16/20

Time

1401

Matrix

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Sample Name

CS6

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3/16/20

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Sample Name

CS7

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CS8

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CS9

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Sample Name

SW3

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

[illegible]

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