



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

September 21, 2020

#5E29133-BG14

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

SUBJECT: Remediation Closure Report for the North Thistle 34 State Com #1H Release (1-RP-4488),
Lea County, New Mexico

To Whom It May Concern:

On behalf of Devon Energy Production Company (Devon), 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 North Thistle 34 State Com #1H site. The site is in Unit M, Section 34, Township 22S, Range 33E, Lea County, New Mexico, on State land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	North Thistle 34 State Com #1H	Company	Devon Energy Production Company
API Number	30-025-42465	Location	32.341787316, -103.56725354
Incident Number	1RP-4488		
Estimated Date of Release	10/16/2016	Date Reported to NMOCD	10/16/2016
Land Owner	State	Reported To	OCD
Source of Release	Rubber packing on stuffing box was breached due to sudden increase in pressure.		
Released Volume	450 BBLS of PW 150 BBLS of crude oil	Released Material	Produced water and crude oil
Recovered Volume	450 BBLS of PW 134 BBLS of crude oil	Net Release	16 BBLS of crude oil
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	5/27/2020, 7/1/2020, 8/27/2020		

North Thistle 34 State Com #1H Remediation Closure Report (1RP-4488)
of 4
September 21, 2020

Page 2

1.0 Background

On October 16, 2016, a release was discovered at the North Thistle 34 State Com #1H site due to a breach in the rubber packing on the stuffing box caused by a sudden increase in formation pressure. Initial response activities were conducted by Devon Energy, and included source elimination, containment and site stabilization activities, which recovered approximately 450 barrels of produced water and 134 barrels of crude oil. 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 North Thistle 34 State Com #1H is located approximately 25 miles southwest of Eunice, New Mexico on State land at an elevation of approximately 3,567 feet above mean sea level (amsl).

Depth to groundwater is estimated to be between 300-400 feet bgs; however, there is no depth to groundwater data within a 3800-meter radius of the area. According to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 9/21/2020). The nearest significant watercourse is an unnamed intermittent stream, located approximately 6,113 feet to the southeast of the release. 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 lack of supportable groundwater data, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 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 May 27, 2020, SMA personnel arrived on site in response to the release associated with North Thistle 34 State Com #1H. SMA performed site delineation activities by collecting surface soil samples around the release site, based on figures provided by Devon personnel. 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.

A total of eighteen sample locations (L1 - L18) were to determine areas of impacted soil. On July 1, 2020, SMA returned to North Thistle 34 State Com #1H to further delineate impacted areas collecting four additional samples at locations (L1, L2, L6, and L8) using a hand-auger to a depth of one-foot bgs.

A total of twenty two (22) soil 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.

On August 27, 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. Each area of impacted soil was excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on August 25, 2020 that closure samples were expected to be collected in two (2) business days.

Based on initial sample results, three areas were excavated. Excavation area one represented by initial sample locations L1 and L2 measured 50 feet by 25 feet by 1-foot. Excavation area two represented by initial sample location L6 measured 26 feet by 17 feet by 1-foot. Excavation area three represented by initial sample location L8 measured 21 foot by 17 foot by 1-foot.

A total of sixteen (16) samples were collected for laboratory analysis for the laboratory methods listed above. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico and Cardinal Laboratories in Hobbs, New Mexico (Appendix D).

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

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

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Ashley Maxwell at 505-320-9241 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Ashley Maxwell
Project Manager

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map

North Thistle 34 State Com #1H Remediation Closure Report (1RP-4488)
of 4
September 21, 2020

Page 4

Figure 3: Site and Sample Location Map

Tables:

Table 2: NMOCD Closure Criteria Justification

Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141

Appendix B: NMOSE Wells Report

Appendix C: Sampling Protocol

Appendix D: Laboratory Analytical Reports

Appendix E: Photo Log

FIGURES

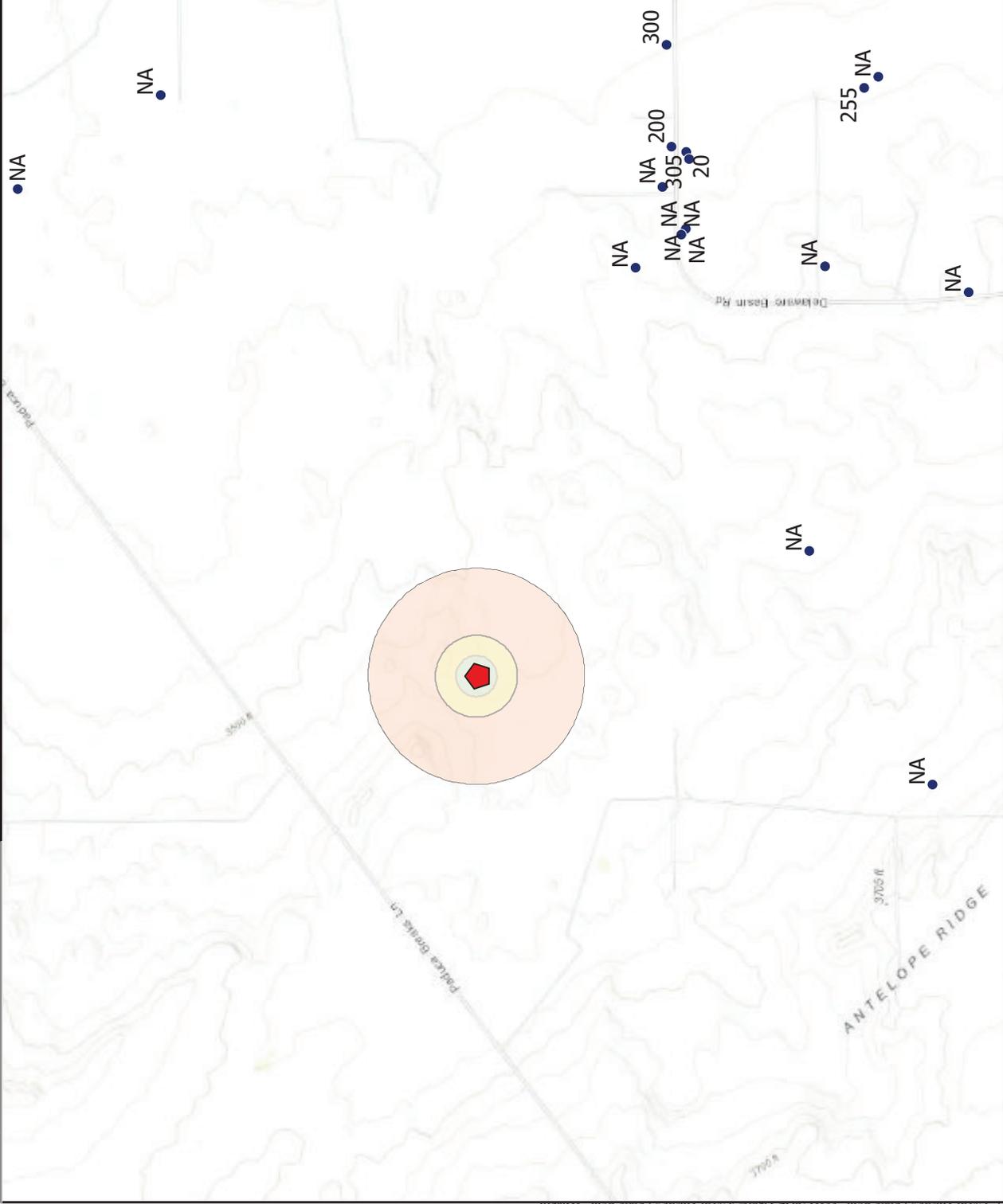
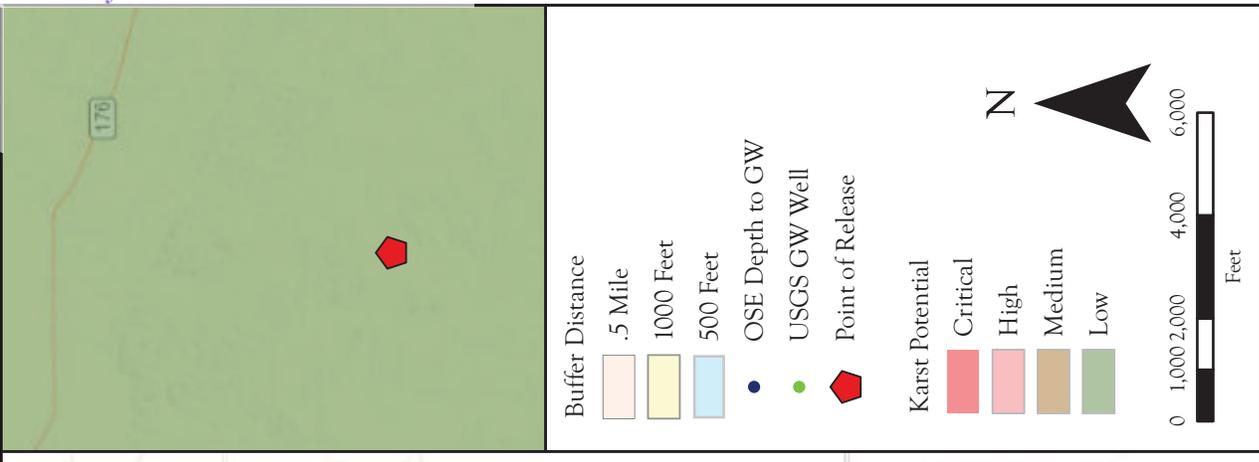
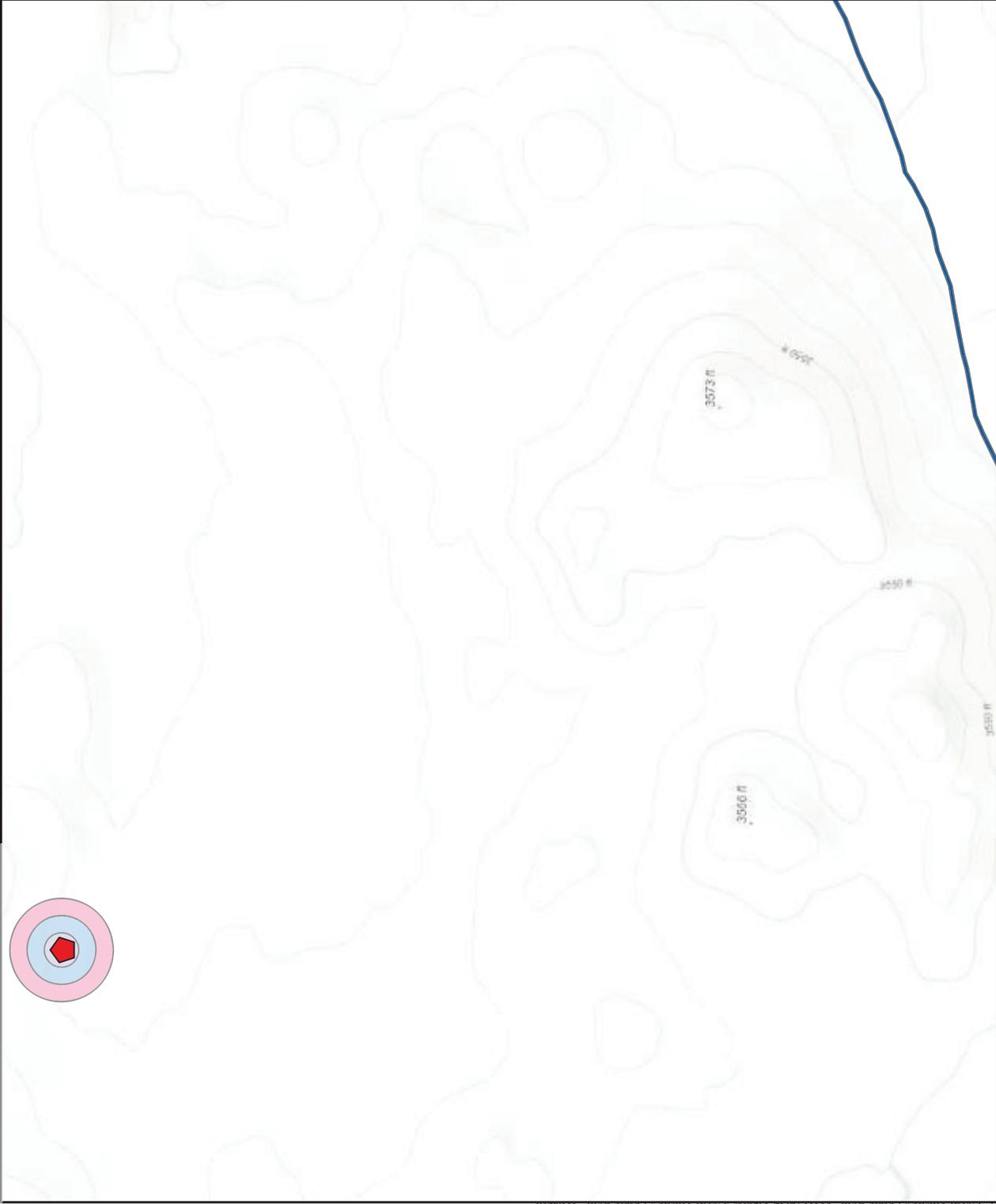


Figure 1

Vicinity and Well Head Protection Map
 North Thistle 34 State Com #1H - Devon Energy Production Company
 UL: M S: 34 T: 22S R: 33E, Lea County, New Mexico

<p>201 South Halaquena Street Carlsbad, New Mexico 88221 (575) 689-7040 Serving the Southwest & Rocky Mountains</p>	
<p>Revisions</p> <p>By: _____ Date: _____ Descr: _____</p> <p>By: _____ Date: _____ Descr: _____</p> <p>© Souder, Miller & Associates, 2020, All Rights Reserved</p>	<p>Drawn _____ Date _____ Checked _____ Approved _____</p>
<p>Lynn A. Acosta 7/8/2020</p>	<p>Date Saved: 6/29/2020 Path: P:\5-Devon MSA 2020 (5E721933)\R014-North Thistle 34 State Com #01H\CAD\Figures\North Thistle 34 State Com #1H.aprx</p>



- Buffer Distance
 - 300 Feet
 - 200 Feet
 - 100 Feet
- Springs & Seeps
- Streams & Canals
- Rivers
- Flowlines SENM
- NM Wetlands
- Lakes & Playas
- FEMA Flood Zones 2011
- Point of Release



Figure 2

Surface Water Protection Map
 North Thistle 34 State Com #1H- Devon Energy Production Company
 UL: M S: 34 T: 22S R: 33E Lea County, New Mexico



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Drawn _____
 Date _____
 Checked _____
 Approved _____
 Lynn A. Acosta
 6/29/2020

Revisions
 By: _____ Date: _____ Descr: _____
 By: _____ Date: _____ Descr: _____
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Date Saved: 5/19/2020

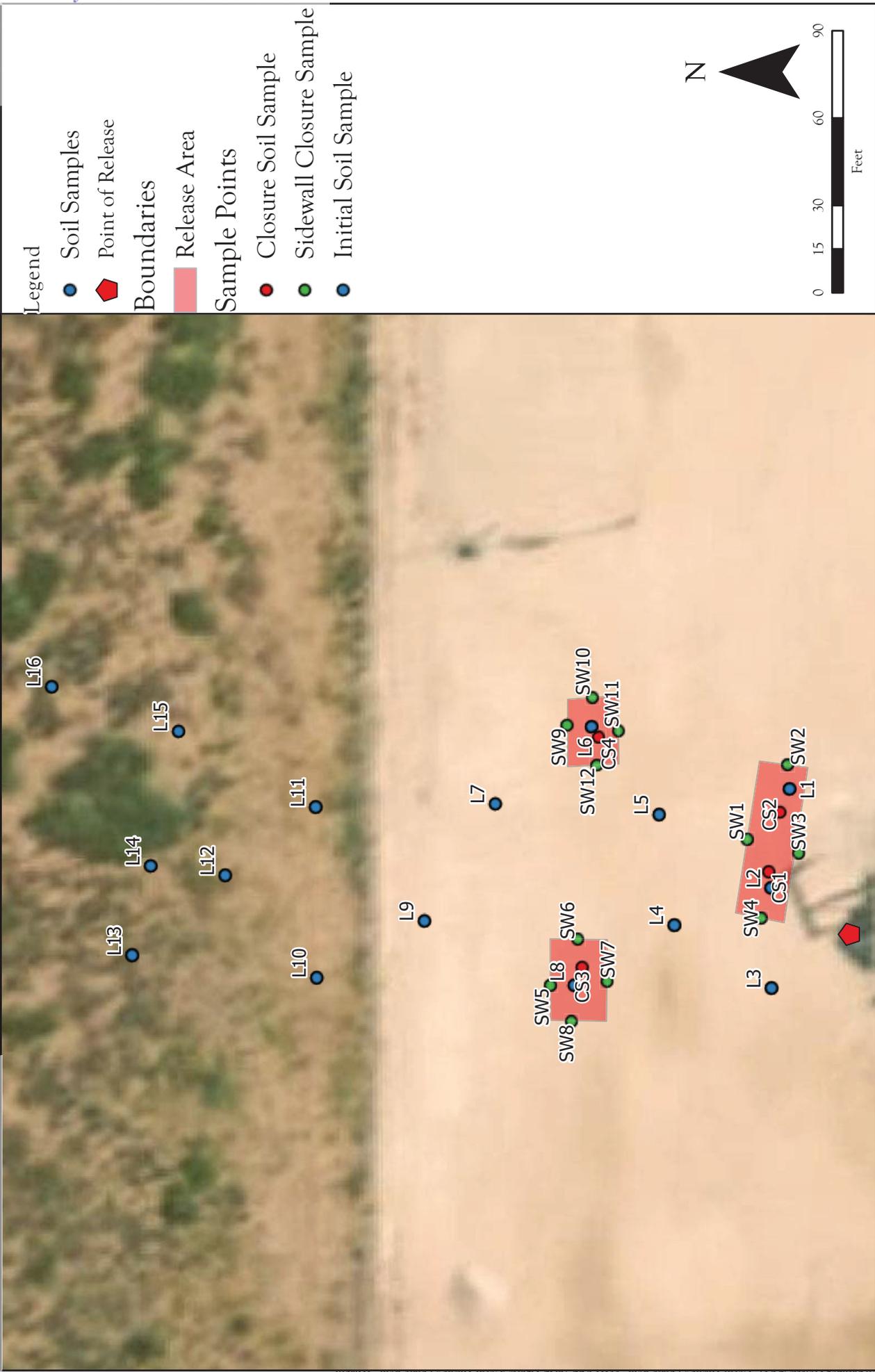


Figure 3

Site and Sample Location Map

North Thistle 34 State Com #1H - Devon Energy Production Company

UL: M S: 34 T: 22S R: 33E Lea County, New Mexico

201 South Halaquina Street
Carlsbad, New Mexico 88221
(575) 689-7040
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Revisions

By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Date Saved: 9/14/2020

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Drawn: Lynn A. Acosta

Date: 9/21/2020

Checked: _____

Approved: _____

TABLES

Table 2:
NMOCD Closure Criteria

Devon Energy Production Company
North Thistle 34 State Com #001H
(1RP-4488)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	305-400	New Mexico Office of the State Engineer
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	N/A	USGS Geological Survey
Horizontal Distance to Nearest Significant Watercourse (ft)	4,700	USGS Geological Survey

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

SMA #

Devon Energy Production Company
 North Thistle 34 State Com #1H
 (1RP-4488)

Table 3:
 Summary of Sample Results

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	GRO + DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOC D Closure Criteria											
L1	5/27/2020	Surface	Excavated	50	10	<5.0	13	1000	<47	100	600
	7/1/2020	1	In-Situ	<0.225	<0.025	-	-	13	-	13	3400
L2	5/27/2020	Surface	Excavated	<0.224	<0.025	<5.0	<9.6	<14.6	<48	<62.6	5800
	7/1/2020	1	In-Situ	-	-	-	-	-	-	-	112
L3	5/27/2020	Surface	In-Situ	<0.224	<0.025	<5.0	<8.9	<13.9	<45	<58.9	520
L4	5/27/2020	Surface	In-Situ	<0.225	<0.025	<5.0	<9.3	<14.3	<46	<60.3	<60
L5	5/27/2020	Surface	In-Situ	<0.224	<0.025	<5.0	16	16	<46	16	110
L6	5/27/2020	Surface	Excavated	<0.220	<0.024	<4.9	36	36	67	103	<60
	7/1/2020	1	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-
L7	5/27/2020	Surface	In-Situ	<0.219	<0.024	<4.9	<9.5	<14.4	<48	<62.4	470
L8	5/27/2020	Surface	Excavated	<0.220	<0.024	<4.9	<9.4	<14.3	<47	<61.3	5300
	7/1/2020	1	In-Situ	-	-	-	-	-	-	-	288
L9	5/27/2020	Surface	In-Situ	<0.219	<0.024	<4.9	<9.8	<14.7	<49	<63.7	430
L10	5/27/2020	Surface	In-Situ	<0.222	<0.025	<4.9	<9.9	<14.8	<50	<64.8	<60
L11	5/27/2020	Surface	In-Situ	<0.216	<0.024	<4.8	<9.9	<14.7	<49	<63.7	<60
L12	5/27/2020	Surface	In-Situ	<0.222	<0.025	<4.9	<9.3	<14.2	<47	<61.2	<60
L13	5/27/2020	Surface	In-Situ	<0.219	<0.024	<4.9	<9.9	<15.8	<50	<65.8	<60
L14	5/27/2020	Surface	In-Situ	<0.219	<0.024	<4.9	<9.7	<14.6	<48	<62.6	<60
L15	5/27/2020	Surface	In-Situ	<0.221	<0.025	<4.9	<9.5	<14.4	<48	<62.4	<60
L16	5/27/2020	Surface	In-Situ	<0.224	<0.025	<5.0	<9.4	<14.4	<47	<61.4	<60
L17	5/27/2020	Surface	In-Situ	<0.219	<0.024	<4.9	<9.1	<14	<46	<60	<60
L18	5/27/2020	Surface	In-Situ	<0.222	<0.025	<4.9	<9.8	<14.7	<49	<63.7	<60
Closure Samples											
CS1				<0.224	<0.025	<5.0	<9.6	<14.6	<48	<62.6	210
CS2				<0.222	<0.025	<4.9	<9.3	<14.2	<47	<61.2	330
CS3				<0.225	<0.025	<5.0	<10	<15	<51	<66	170
CS4				<0.220	<0.024	<4.9	13	13	<49	13	<60
SW1				<0.224	<0.025	<5.0	9.00	9.00	<44	9.00	<60
SW2				<0.219	<0.024	<4.9	<9.6	<14.5	<48	<62.5	<60
SW3				<0.222	<0.025	<4.9	18	18	<50	18	<60
SW4				<0.222	<0.025	<4.9	<9.3	<14.2	<46	<60.2	<60
SW5	8/27/2020			<0.222	<0.025	<4.9	<9.2	<14.1	<46	<60.1	<60
SW6		Surface		<0.219	<0.024	<4.9	<9.3	<14.2	<46	<60.2	130
SW7			In-Situ	<0.221	<0.025	<4.9	<9.7	<14.6	<48	<62.6	<60
SW8				<0.221	<0.025	<4.9	<9.3	<14.2	<46	<60.2	<59
SW9				<0.224	<0.025	<5.0	<9.0	<14.0	<45	<60	<60
SW10				<0.222	<0.025	<4.9	<9.3	<14.2	<46	<60.2	<60
SW11				<0.222	<0.025	<4.9	<9.6	<14.5	<48	<62.5	<60
SW12				<0.222	<0.025	<4.9	<9.9	<14.8	<49	<63.8	<60

"-" = Not Analyzed

SMA #

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

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company Devon Energy Production Company	Contact Randall Gladden, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-513-9463
Facility Name North Thistle 34 State Com #1H	Facility Type Oil

Surface Owner State	Mineral Owner State	API No 30-025-42465
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	34	22S	33E	330	South	435	West	Lea

Latitude: 32.341787316 **Longitude:** -103.56725354

NATURE OF RELEASE

Type of Release Produced water & Oil	Volume of Release 600 BBLS	Volume Recovered 535 BBLS
Source of Release Well head Stuffing box	Date and Hour of Occurrence 10/16/2016 @ 3:56pm	Date and Hour of Discovery 10/16/2016 @ 3:56pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD-Kristen Lynch	
By Whom? Brett Fulks, EHS professional	Date and Hour OCD - 10/16/2016 @ 8:21pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

The rubber packing on the stuffing box was breached due to a sudden increase in formation pressure, we believe this was due to the recent completion of an offset well. We are working with the operator of the offset well to improve communication prior to future completions of offset wells. The rubber packing on the stuffing box was replaced to stop the release.

Describe Area Affected and Cleanup Action Taken.*

Approximately 450 BBLS of produced water and 150 BBLS of oil were released on to the pad, with some fluid misting off of the location to the North of the well. The approximate area of the release on pad is 208' X 271', the off pad spray finely misted an area of approximately 151' by 437' just North of the well. Vacuum trucks recovered 450 BBLS produced water and 134 BBLS oil. An environmental agency has been contacted for remediation.

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

Signature: <i>Sarah Gallegos-Troublefield</i>	OIL CONSERVATION DIVISION	
Printed Name: Sarah Gallegos-Troublefield	Approved by Environmental Specialist: <i>Kristen Lynch</i>	
Title: Field Admin Support	Approval Date: 11/7/2016	Expiration Date: 1/7/2016
E-mail Address: Sarah.Gallegos-Troublefield@dvn.com	Conditions of Approval: Please see attached C-141 Directive.	Attached <input type="checkbox"/>
Date: 10/27/2016 Phone: 575.748.1864		IRP 4488

* Attach Additional Sheets If Necessary NMOCD Accepts discrete samples only, Notify prior to sampling.

nKL1631234452
pKL1631234909

Incident ID	
District RP	1RP-4488
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?	300-400 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Oil Conservation Division

Incident ID	
District RP	1RP-4488
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: Tom Bynum Title: EHS Consultant

Signature: *Tom Bynum* Date: 9/21/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	1RP-4488
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
 Signature: Tom Bynum Date: 9/21/2020
 email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	
District RP	1RP-4488
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: Tom Bynum Title: EHS Consultant
 Signature: *Tom Bynum* Date: 9/21/2020
 email: tom.bynum@dvn.com Telephone: 575-748-2663

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: *Brittany Hall* Date: 11/2/2022
 Printed Name: Brittany Hall Title: Environmental Specialist

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/27/2016 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP 4488 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District I office in Hobbs on or before 12/7/2016. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

Jim Griswold

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

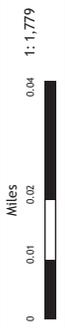
North Thistle 34 State Com 1H

600 BBLS PW & Oil - 10/16/2016



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as a legal instrument or warranty of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Sarah
Map is current as of 10/16/2016



Sec 34, T22S, R33E

600 BBLS PW & Oil



APPENDIX B

NMOSE WELLS REPORT



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

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

(R=POD has been replaced, O=orphaned,

C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	WellDepth	WaterDepth	WaterColumn
C_03582_POD1	C	LE	4	1	1	14	23S	33E	636583	3575666	3982	590			
CP_01130_POD1	CP	LE	2	1	2	07	23S	34E	640662	3577558	6082	27			
CP_01130_POD2	CP	LE	2	1	2	07	23S	34E	640674	3577549	6095	27			
C_02277	CUB	LE	2	3	4	20	23S	33E	632663	3572970*	6625	550	400	150	
CP_00872_POD1	CP	LE	1	1	1	08	23S	34E	641225	3577504*	6638	494	305	189	

Average Depth to Water: **352 feet**
 Minimum Depth: **305 feet**
 Maximum Depth: **400 feet**

Record Count:5

UTMNAD83 Radius Search (in meters):

Easting (X): 634816

Northing (Y): 3579236

Radius: 6650

*UTM location was derived from PLSS - see Help

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

7/13/20 6:48 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C

SAMPLING PROTOCOL



Sampling Protocol

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico and Cardinal Laboratories in Hobbs, New Mexico for analysis. A total of (38) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Sampling Analysis Field Quality Assurance Procedures

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

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

APPENDIX D
LABORATORY ANALYTICAL
REPORTS



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 07, 2020

ASHLEY MAXWELL
SOUDER MILLER AND ASSOCIATES
201 S. HALAGUENO
CARLSBAD, NM 88220

RE: N. THISTLE #34

Enclosed are the results of analyses for samples received by the laboratory on 07/02/20 8:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SOUDER MILLER AND ASSOCIATES
 ASHLEY MAXWELL
 201 S. HALAGUENO
 CARLSBAD NM, 88220
 Fax To: NONE

Received:	07/02/2020	Sampling Date:	07/01/2020
Reported:	07/07/2020	Sampling Type:	Soil
Project Name:	N. THISTLE #34	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON ENERGY - JAL NM		

Sample ID: L 1 (H001737-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/06/2020	ND	416	104	400	0.00	

Sample ID: L 2 (H001737-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/06/2020	ND	416	104	400	0.00	

Sample ID: L 6 (H001737-03)

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/03/2020	ND	207	103	200	2.16	
DRO >C10-C28*	<10.0	10.0	07/03/2020	ND	224	112	200	0.916	
EXT DRO >C28-C36	<10.0	10.0	07/03/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.0 % 42.2-156

Sample ID: L 8 (H001737-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	07/06/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

June 08, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: N Thistle 34 1RP 4302

OrderNo.: 2005B80

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 13 sample(s) on 5/28/2020 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 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 in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL1

Project: N Thistle 34 1RP 4302

Collection Date: 5/27/2020 12:44:00 PM

Lab ID: 2005B80-001

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 11:24:54 AM	52848
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/30/2020 5:19:54 PM	52759
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 5:19:54 PM	52759
Surr: DNOP	37.2	55.1-146	S	%Rec	1	5/30/2020 5:19:54 PM	52759
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2020 12:11:58 AM	52747
Surr: BFB	81.1	66.6-105		%Rec	1	5/30/2020 12:11:58 AM	52747
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/30/2020 12:11:58 AM	52747
Toluene	ND	0.047		mg/Kg	1	5/30/2020 12:11:58 AM	52747
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2020 12:11:58 AM	52747
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2020 12:11:58 AM	52747
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	5/30/2020 12:11:58 AM	52747

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 **2005B80**

Date Reported: **6/8/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL2

Project: N Thistle 34 1RP 4302

Collection Date: 5/27/2020 12:45:00 PM

Lab ID: 2005B80-002

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 11:37:15 AM	52848
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2020 5:44:27 PM	52759
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/30/2020 5:44:27 PM	52759
Surr: DNOP	53.8	55.1-146	S	%Rec	1	5/30/2020 5:44:27 PM	52759
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2020 12:35:34 AM	52747
Surr: BFB	82.2	66.6-105		%Rec	1	5/30/2020 12:35:34 AM	52747
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/30/2020 12:35:34 AM	52747
Toluene	ND	0.048		mg/Kg	1	5/30/2020 12:35:34 AM	52747
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2020 12:35:34 AM	52747
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2020 12:35:34 AM	52747
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	5/30/2020 12:35:34 AM	52747

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 **2005B80**

Date Reported: **6/8/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL3

Project: N Thistle 34 1RP 4302

Collection Date: 5/27/2020 12:47:00 PM

Lab ID: 2005B80-003

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 11:49:36 AM	52848
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/30/2020 6:08:50 PM	52759
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 6:08:50 PM	52759
Surr: DNOP	34.5	55.1-146	S	%Rec	1	5/30/2020 6:08:50 PM	52759
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2020 12:59:09 AM	52747
Surr: BFB	85.1	66.6-105		%Rec	1	5/30/2020 12:59:09 AM	52747
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/30/2020 12:59:09 AM	52747
Toluene	ND	0.049		mg/Kg	1	5/30/2020 12:59:09 AM	52747
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2020 12:59:09 AM	52747
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2020 12:59:09 AM	52747
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	5/30/2020 12:59:09 AM	52747

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL4

Project: N Thistle 34 1RP 4302

Collection Date: 5/27/2020 12:48:00 PM

Lab ID: 2005B80-004

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 12:01:57 PM	52848
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/30/2020 6:33:17 PM	52759
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/30/2020 6:33:17 PM	52759
Surr: DNOP	28.9	55.1-146	S	%Rec	1	5/30/2020 6:33:17 PM	52759
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/30/2020 1:22:28 AM	52747
Surr: BFB	83.6	66.6-105		%Rec	1	5/30/2020 1:22:28 AM	52747
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	5/30/2020 1:22:28 AM	52747
Toluene	ND	0.046		mg/Kg	1	5/30/2020 1:22:28 AM	52747
Ethylbenzene	ND	0.046		mg/Kg	1	5/30/2020 1:22:28 AM	52747
Xylenes, Total	ND	0.093		mg/Kg	1	5/30/2020 1:22:28 AM	52747
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	5/30/2020 1:22:28 AM	52747

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 **2005B80**

Date Reported: **6/8/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL5

Project: N Thistle 34 1RP 4302

Collection Date: 5/27/2020 12:50:00 PM

Lab ID: 2005B80-005

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 12:14:18 PM	52848
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/3/2020 9:38:50 AM	52849
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/3/2020 9:38:50 AM	52849
Surr: DNOP	84.9	55.1-146		%Rec	1	6/3/2020 9:38:50 AM	52849
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2020 1:45:52 AM	52747
Surr: BFB	81.7	66.6-105		%Rec	1	5/30/2020 1:45:52 AM	52747
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/30/2020 1:45:52 AM	52747
Toluene	ND	0.049		mg/Kg	1	5/30/2020 1:45:52 AM	52747
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2020 1:45:52 AM	52747
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2020 1:45:52 AM	52747
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	5/30/2020 1:45:52 AM	52747

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL6

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:51:00 PM

Lab ID: 2005B80-006

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	180	60		mg/Kg	20	6/3/2020 12:51:18 PM	52848
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2020 6:21:13 PM	52754
Surr: BFB	100	70-130		%Rec	1	5/29/2020 6:21:13 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2020 10:02:34 AM	52849
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/3/2020 10:02:34 AM	52849
Surr: DNOP	88.0	55.1-146		%Rec	1	6/3/2020 10:02:34 AM	52849
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 6:21:13 PM	52754
Toluene	ND	0.050		mg/Kg	1	5/29/2020 6:21:13 PM	52754
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2020 6:21:13 PM	52754
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2020 6:21:13 PM	52754
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%Rec	1	5/29/2020 6:21:13 PM	52754
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	5/29/2020 6:21:13 PM	52754
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/29/2020 6:21:13 PM	52754
Surr: Toluene-d8	100	70-130		%Rec	1	5/29/2020 6:21:13 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL7

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:52:00 PM

Lab ID: 2005B80-007

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 1:03:38 PM	52848
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2020 7:47:28 PM	52754
Surr: BFB	94.4	70-130		%Rec	1	5/29/2020 7:47:28 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2020 10:26:28 AM	52849
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/3/2020 10:26:28 AM	52849
Surr: DNOP	83.6	55.1-146		%Rec	1	6/3/2020 10:26:28 AM	52849
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 7:47:28 PM	52754
Toluene	ND	0.049		mg/Kg	1	5/29/2020 7:47:28 PM	52754
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2020 7:47:28 PM	52754
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2020 7:47:28 PM	52754
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%Rec	1	5/29/2020 7:47:28 PM	52754
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	5/29/2020 7:47:28 PM	52754
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/29/2020 7:47:28 PM	52754
Surr: Toluene-d8	101	70-130		%Rec	1	5/29/2020 7:47:28 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL8

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:53:00 PM

Lab ID: 2005B80-008

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 1:15:58 PM	52848
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2020 9:13:03 PM	52754
Surr: BFB	99.3	70-130		%Rec	1	5/29/2020 9:13:03 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2020 10:50:23 AM	52849
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/3/2020 10:50:23 AM	52849
Surr: DNOP	73.8	55.1-146		%Rec	1	6/3/2020 10:50:23 AM	52849
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 9:13:03 PM	52754
Toluene	ND	0.050		mg/Kg	1	5/29/2020 9:13:03 PM	52754
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2020 9:13:03 PM	52754
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2020 9:13:03 PM	52754
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%Rec	1	5/29/2020 9:13:03 PM	52754
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	5/29/2020 9:13:03 PM	52754
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/29/2020 9:13:03 PM	52754
Surr: Toluene-d8	101	70-130		%Rec	1	5/29/2020 9:13:03 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL9

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:54:00 PM

Lab ID: 2005B80-009

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 1:28:20 PM	52848
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2020 9:41:31 PM	52754
Surr: BFB	97.3	70-130		%Rec	1	5/29/2020 9:41:31 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/3/2020 11:14:14 AM	52849
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/3/2020 11:14:14 AM	52849
Surr: DNOP	80.5	55.1-146		%Rec	1	6/3/2020 11:14:14 AM	52849
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 9:41:31 PM	52754
Toluene	ND	0.049		mg/Kg	1	5/29/2020 9:41:31 PM	52754
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2020 9:41:31 PM	52754
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2020 9:41:31 PM	52754
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	1	5/29/2020 9:41:31 PM	52754
Surr: 4-Bromofluorobenzene	93.5	70-130		%Rec	1	5/29/2020 9:41:31 PM	52754
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/29/2020 9:41:31 PM	52754
Surr: Toluene-d8	96.8	70-130		%Rec	1	5/29/2020 9:41:31 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL10

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:57:00 PM

Lab ID: 2005B80-010

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/3/2020 1:40:41 PM	52848
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2020 10:09:57 PM	52754
Surr: BFB	96.9	70-130		%Rec	1	5/29/2020 10:09:57 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/3/2020 11:38:06 AM	52849
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/3/2020 11:38:06 AM	52849
Surr: DNOP	80.4	55.1-146		%Rec	1	6/3/2020 11:38:06 AM	52849
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/29/2020 10:09:57 PM	52754
Toluene	ND	0.048		mg/Kg	1	5/29/2020 10:09:57 PM	52754
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2020 10:09:57 PM	52754
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2020 10:09:57 PM	52754
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	5/29/2020 10:09:57 PM	52754
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	5/29/2020 10:09:57 PM	52754
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	5/29/2020 10:09:57 PM	52754
Surr: Toluene-d8	94.4	70-130		%Rec	1	5/29/2020 10:09:57 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL11

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 12:58:00 PM

Lab ID: 2005B80-011

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/3/2020 11:18:46 AM	52850
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2020 10:38:30 PM	52754
Surr: BFB	92.3	70-130		%Rec	1	5/29/2020 10:38:30 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/30/2020 10:12:17 PM	52777
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 10:12:17 PM	52777
Surr: DNOP	48.8	55.1-146	S	%Rec	1	5/30/2020 10:12:17 PM	52777
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	5/29/2020 10:38:30 PM	52754
Toluene	ND	0.048		mg/Kg	1	5/29/2020 10:38:30 PM	52754
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2020 10:38:30 PM	52754
Xylenes, Total	ND	0.095		mg/Kg	1	5/29/2020 10:38:30 PM	52754
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	5/29/2020 10:38:30 PM	52754
Surr: 4-Bromofluorobenzene	93.3	70-130		%Rec	1	5/29/2020 10:38:30 PM	52754
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/29/2020 10:38:30 PM	52754
Surr: Toluene-d8	95.6	70-130		%Rec	1	5/29/2020 10:38:30 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL12

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 1:00:00 PM

Lab ID: 2005B80-012

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/3/2020 11:56:00 AM	52850
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2020 11:06:57 PM	52754
Surr: BFB	97.5	70-130		%Rec	1	5/29/2020 11:06:57 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/30/2020 11:25:18 PM	52777
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 11:25:18 PM	52777
Surr: DNOP	43.2	55.1-146	S	%Rec	1	5/30/2020 11:25:18 PM	52777
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 11:06:57 PM	52754
Toluene	ND	0.050		mg/Kg	1	5/29/2020 11:06:57 PM	52754
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2020 11:06:57 PM	52754
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2020 11:06:57 PM	52754
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	5/29/2020 11:06:57 PM	52754
Surr: 4-Bromofluorobenzene	93.7	70-130		%Rec	1	5/29/2020 11:06:57 PM	52754
Surr: Dibromofluoromethane	108	70-130		%Rec	1	5/29/2020 11:06:57 PM	52754
Surr: Toluene-d8	101	70-130		%Rec	1	5/29/2020 11:06:57 PM	52754

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 2005B80

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SL13

Project: N Thistle 34 IRP 4302

Collection Date: 5/27/2020 1:02:00 PM

Lab ID: 2005B80-013

Matrix: SOIL

Received Date: 5/28/2020 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/3/2020 12:08:25 PM	52850
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2020 11:35:25 PM	52754
Surr: BFB	98.7	70-130		%Rec	1	5/29/2020 11:35:25 PM	52754
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	9.6	9.3		mg/Kg	1	5/30/2020 11:49:33 PM	52777
Motor Oil Range Organics (MRO)	59	47		mg/Kg	1	5/30/2020 11:49:33 PM	52777
Surr: DNOP	47.7	55.1-146	S	%Rec	1	5/30/2020 11:49:33 PM	52777
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	5/29/2020 11:35:25 PM	52754
Toluene	ND	0.049		mg/Kg	1	5/29/2020 11:35:25 PM	52754
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2020 11:35:25 PM	52754
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2020 11:35:25 PM	52754
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	5/29/2020 11:35:25 PM	52754
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	5/29/2020 11:35:25 PM	52754
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/29/2020 11:35:25 PM	52754
Surr: Toluene-d8	97.4	70-130		%Rec	1	5/29/2020 11:35:25 PM	52754

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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: MB-52850	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52850	RunNo: 69377								
Prep Date: 6/3/2020	Analysis Date: 6/3/2020	SeqNo: 2405931	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52850	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52850	RunNo: 69377								
Prep Date: 6/3/2020	Analysis Date: 6/3/2020	SeqNo: 2405932	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID: MB-52848	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52848	RunNo: 69354								
Prep Date: 6/3/2020	Analysis Date: 6/3/2020	SeqNo: 2406628	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52848	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52848	RunNo: 69354								
Prep Date: 6/3/2020	Analysis Date: 6/3/2020	SeqNo: 2406629	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: LCS-52759	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52759	RunNo: 69267								
Prep Date: 5/29/2020	Analysis Date: 5/30/2020	SeqNo: 2400758	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.2	70	130			
Surr: DNOP	5.5		5.000		111	55.1	146			

Sample ID: MB-52759	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52759	RunNo: 69267								
Prep Date: 5/29/2020	Analysis Date: 5/30/2020	SeqNo: 2400759	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	55.1	146			

Sample ID: MB-52777	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52777	RunNo: 69274								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2400972	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		87.9	55.1	146			

Sample ID: 2005B80-011AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SL11	Batch ID: 52777	RunNo: 69267								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2400974	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.4	46.82	8.683	76.0	47.4	136			
Surr: DNOP	1.5		4.682		32.6	55.1	146			S

Sample ID: 2005B80-011AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SL11	Batch ID: 52777	RunNo: 69267								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2400975	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.7	48.36	8.683	76.1	47.4	136	2.68	43.4	
Surr: DNOP	1.5		4.836		31.7	55.1	146	0	0	S

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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: LCS-52777	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52777	RunNo: 69274								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2401275	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.9	70	130			
Surr: DNOP	4.1		5.000		81.9	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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: ics-52747	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 52747	RunNo: 69259								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400554	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.2	80	120			
Surr: BFB	940		1000		94.1	66.6	105			

Sample ID: mb-52747	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 52747	RunNo: 69259								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400555	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.3	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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: LCS-52747	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 52747		RunNo: 69259							
Prep Date: 5/28/2020	Analysis Date: 5/29/2020		SeqNo: 2400581		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	85.7	80	120			
Toluene	0.92	0.050	1.000	0	91.9	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.4	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: mb-52747	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 52747		RunNo: 69259							
Prep Date: 5/28/2020	Analysis Date: 5/29/2020		SeqNo: 2400582		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: Ics-52754	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400344	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.7	80	120			
Toluene	0.96	0.050	1.000	0	95.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.7	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: mb-52754	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400345	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.0	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.1	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.53		0.5000		107	70	130			

Sample ID: 2005b80-006ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SL6	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400392	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9690	0	96.5	71.1	115			
Toluene	0.99	0.048	0.9690	0	102	79.6	132			
Ethylbenzene	1.0	0.048	0.9690	0	105	83.8	134			
Xylenes, Total	3.1	0.097	2.907	0	107	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.47		0.4845		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4845		95.0	70	130			
Surr: Dibromofluoromethane	0.48		0.4845		98.4	70	130			
Surr: Toluene-d8	0.47		0.4845		97.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: 2005b80-006amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SL6	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400393	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9814	0	99.5	71.1	115	4.29	20	
Toluene	1.0	0.049	0.9814	0	106	79.6	132	4.81	20	
Ethylbenzene	1.1	0.049	0.9814	0	112	83.8	134	7.93	20	
Xylenes, Total	3.3	0.098	2.944	0	111	82.4	132	5.26	20	
Surr: 1,2-Dichloroethane-d4	0.48		0.4907		96.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4907		99.2	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.4907		103	70	130	0	0	
Surr: Toluene-d8	0.49		0.4907		99.4	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#: 2005B80

08-Jun-20

Client: Souder, Miller & Associates

Project: N Thistle 34 IRP 4302

Sample ID: 2005b80-007ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SL7	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400417	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.80	0	82.0	70	130			
Surr: BFB	500		496.0		101	70	130			

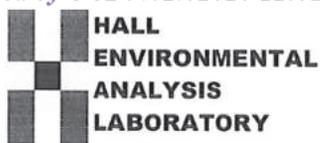
Sample ID: 2005b80-007amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SL7	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400418	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.83	0	90.7	70	130	10.2	20	
Surr: BFB	490		496.5		98.2	70	130	0	0	

Sample ID: lcs-52754	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400437	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.1	70	130			
Surr: BFB	490		500.0		97.5	70	130			

Sample ID: mb-52754	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 52754	RunNo: 69254								
Prep Date: 5/28/2020	Analysis Date: 5/29/2020	SeqNo: 2400438	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

Qualifiers:

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



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: 2005B80 RcptNo: 1

Received By: Emily Mocho 5/28/2020 11:00:00 AM

Completed By: Desiree Dominguez 5/28/2020 9:23:26 AM

Reviewed By: DAD 5/28/20

Handwritten initials 'ID' with a signature

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [] No [checked] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: Em 5/28/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: _____ Date: _____
By Whom: _____ Via: [] eMail [] Phone [] Fax [] In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, -1.1, Good, Not Present, , ,



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

June 08, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: North Thistle 34 State Com 1H

OrderNo.: 2005C44

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 18 sample(s) on 5/29/2020 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 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 in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:01:00 PM

Lab ID: 2005C44-001

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	3400	150		mg/Kg	50	6/5/2020 5:26:02 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Surr: BFB	101	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	5/30/2020 9:17:09 PM	52778
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 9:17:09 PM	52778
Surr: DNOP	76.6	55.1-146		%Rec	1	5/30/2020 9:17:09 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: Toluene-d8	98.5	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L2

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:02:00 PM

Lab ID: 2005C44-002

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	5800	300		mg/Kg	100	6/5/2020 5:38:26 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Surr: BFB	99.6	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/30/2020 9:41:21 PM	52778
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 9:41:21 PM	52778
Surr: DNOP	82.4	55.1-146		%Rec	1	5/30/2020 9:41:21 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: Dibromofluoromethane	99.8	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: Toluene-d8	96.2	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:03:00 PM

Lab ID: 2005C44-003

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	520	59		mg/Kg	20	6/4/2020 5:09:36 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Surr: BFB	95.9	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	5/30/2020 10:05:41 PM	52778
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/30/2020 10:05:41 PM	52778
Surr: DNOP	73.4	55.1-146		%Rec	1	5/30/2020 10:05:41 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: Toluene-d8	99.8	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L4

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:05:00 PM

Lab ID: 2005C44-004

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 5:22:00 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Surr: BFB	98.8	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/30/2020 10:29:46 PM	52778
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 10:29:46 PM	52778
Surr: DNOP	78.0	55.1-146		%Rec	1	5/30/2020 10:29:46 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: Toluene-d8	99.1	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:05:00 PM

Lab ID: 2005C44-005

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	110	60		mg/Kg	20	6/4/2020 5:59:14 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Surr: BFB	95.5	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	16	9.2		mg/Kg	1	5/30/2020 10:54:02 PM	52778
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 10:54:02 PM	52778
Surr: DNOP	68.3	55.1-146		%Rec	1	5/30/2020 10:54:02 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: 4-Bromofluorobenzene	88.4	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: Toluene-d8	97.9	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:06:00 PM

Lab ID: 2005C44-006

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 7:01:17 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Surr: BFB	102	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	36	9.0		mg/Kg	1	5/30/2020 11:18:15 PM	52778
Motor Oil Range Organics (MRO)	67	45		mg/Kg	1	5/30/2020 11:18:15 PM	52778
Surr: DNOP	73.0	55.1-146		%Rec	1	5/30/2020 11:18:15 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: 4-Bromofluorobenzene	93.8	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: Toluene-d8	103	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L7

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:08:00 PM

Lab ID: 2005C44-007

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	470	60		mg/Kg	20	6/4/2020 7:13:42 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Surr: BFB	95.6	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/30/2020 11:42:31 PM	52778
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 11:42:31 PM	52778
Surr: DNOP	66.7	55.1-146		%Rec	1	5/30/2020 11:42:31 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: Toluene-d8	97.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L8

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:11:00 PM

Lab ID: 2005C44-008

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	5300	150		mg/Kg	50	6/5/2020 5:50:50 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Surr: BFB	98.8	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/31/2020 12:06:44 AM	52778
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/31/2020 12:06:44 AM	52778
Surr: DNOP	70.2	55.1-146		%Rec	1	5/31/2020 12:06:44 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: Toluene-d8	98.6	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L9

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:12:00 PM

Lab ID: 2005C44-009

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	430	60		mg/Kg	20	6/4/2020 7:38:31 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Surr: BFB	95.4	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2020 12:30:51 AM	52778
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/31/2020 12:30:51 AM	52778
Surr: DNOP	65.3	55.1-146		%Rec	1	5/31/2020 12:30:51 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: 4-Bromofluorobenzene	92.7	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: Toluene-d8	98.7	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L10

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:16:00 PM

Lab ID: 2005C44-010

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 7:50:55 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Surr: BFB	96.1	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2020 12:55:01 AM	52778
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/31/2020 12:55:01 AM	52778
Surr: DNOP	59.8	55.1-146		%Rec	1	5/31/2020 12:55:01 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: Dibromofluoromethane	99.3	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: Toluene-d8	97.2	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L11

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:18:00 PM

Lab ID: 2005C44-011

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:28:09 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Surr: BFB	104	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2020 1:19:13 AM	52778
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/31/2020 1:19:13 AM	52778
Surr: DNOP	59.9	55.1-146		%Rec	1	5/31/2020 1:19:13 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Toluene	ND	0.048		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: Toluene-d8	100	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L12

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:19:00 PM

Lab ID: 2005C44-012

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:40:33 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Surr: BFB	99.7	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/30/2020 3:34:19 PM	52782
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 3:34:19 PM	52782
Surr: DNOP	81.8	55.1-146		%Rec	1	5/30/2020 3:34:19 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: Toluene-d8	98.9	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L13

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:19:00 PM

Lab ID: 2005C44-013

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:52:57 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Surr: BFB	99.0	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2020 4:48:49 PM	52782
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/30/2020 4:48:49 PM	52782
Surr: DNOP	75.6	55.1-146		%Rec	1	5/30/2020 4:48:49 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: Toluene-d8	97.9	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L14

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:21:00 PM

Lab ID: 2005C44-014

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:05:22 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Surr: BFB	97.8	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/30/2020 5:13:40 PM	52782
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 5:13:40 PM	52782
Surr: DNOP	76.8	55.1-146		%Rec	1	5/30/2020 5:13:40 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: Dibromofluoromethane	98.6	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: Toluene-d8	90.5	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L15

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:22:00 PM

Lab ID: 2005C44-015

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:17:46 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Surr: BFB	99.5	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/30/2020 5:38:22 PM	52782
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 5:38:22 PM	52782
Surr: DNOP	79.6	55.1-146		%Rec	1	5/30/2020 5:38:22 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: Toluene-d8	96.4	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L16

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:23:00 PM

Lab ID: 2005C44-016

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:30:10 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Surr: BFB	97.6	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/30/2020 6:03:02 PM	52782
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 6:03:02 PM	52782
Surr: DNOP	70.3	55.1-146		%Rec	1	5/30/2020 6:03:02 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: Dibromofluoromethane	96.8	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: Toluene-d8	99.7	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L17

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:24:00 PM

Lab ID: 2005C44-017

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:42:35 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Surr: BFB	103	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/30/2020 6:27:35 PM	52782
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 6:27:35 PM	52782
Surr: DNOP	80.1	55.1-146		%Rec	1	5/30/2020 6:27:35 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: Toluene-d8	100	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L18

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:25:00 PM

Lab ID: 2005C44-018

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:54:59 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Surr: BFB	95.6	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2020 6:52:03 PM	52782
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/30/2020 6:52:03 PM	52782
Surr: DNOP	79.6	55.1-146		%Rec	1	5/30/2020 6:52:03 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: Toluene-d8	94.8	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776

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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: MB-52873	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52873	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407918	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52873	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52873	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407919	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Sample ID: MB-52879	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52879	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407961	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52879	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52879	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407962	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: LCS-52778	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 52778		RunNo: 69268							
Prep Date: 5/30/2020	Analysis Date: 5/30/2020		SeqNo: 2400951		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	70	130			
Surr: DNOP	4.5		5.000		89.8	55.1	146			

Sample ID: MB-52778	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 52778		RunNo: 69268							
Prep Date: 5/30/2020	Analysis Date: 5/30/2020		SeqNo: 2400952		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.5	55.1	146			

Sample ID: 2005C44-012AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: L12	Batch ID: 52782		RunNo: 69266							
Prep Date: 5/30/2020	Analysis Date: 5/30/2020		SeqNo: 2401101		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.2	47.4	136			
Surr: DNOP	3.2		5.000		63.5	55.1	146			

Sample ID: 2005C44-012AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: L12	Batch ID: 52782		RunNo: 69266							
Prep Date: 5/30/2020	Analysis Date: 5/30/2020		SeqNo: 2401102		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.8	48.78	0	88.7	47.4	136	15.4	43.4	
Surr: DNOP	3.5		4.878		72.2	55.1	146	0	0	

Sample ID: LCS-52782	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 52782		RunNo: 69266							
Prep Date: 5/30/2020	Analysis Date: 5/30/2020		SeqNo: 2401111		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	70	130			
Surr: DNOP	4.1		5.000		81.5	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: MB-52782	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52782	RunNo: 69266								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2401112	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.4	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: mb-52776	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401185	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.5	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.2	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID: ics-52776	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/30/2020	SeqNo: 2401186	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.7	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.1	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.8	70	130			
Surr: Toluene-d8	0.48		0.5000		95.4	70	130			

Sample ID: 2005c44-001ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: L1	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401188	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9681	0	104	71.1	115			
Toluene	1.1	0.048	0.9681	0	109	79.6	132			
Ethylbenzene	1.1	0.048	0.9681	0	113	83.8	134			
Xylenes, Total	3.3	0.097	2.904	0	114	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.46		0.4840		95.4	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4840		93.7	70	130			
Surr: Dibromofluoromethane	0.50		0.4840		104	70	130			
Surr: Toluene-d8	0.50		0.4840		103	70	130			

Qualifiers:

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

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

WO#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: 2005c44-001amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: L1 Batch ID: 52776 RunNo: 69278										
Prep Date: 5/29/2020 Analysis Date: 5/31/2020 SeqNo: 2401189 Units: mg/Kg										
Benzene	0.96	0.024	0.9756	0	97.9	71.1	115	4.92	20	
Toluene	1.0	0.049	0.9756	0	103	79.6	132	5.07	20	
Ethylbenzene	1.0	0.049	0.9756	0	107	83.8	134	5.18	20	
Xylenes, Total	3.1	0.098	2.927	0	107	82.4	132	5.82	20	
Surr: 1,2-Dichloroethane-d4	0.46		0.4878		94.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4878		99.5	70	130	0	0	
Surr: Dibromofluoromethane	0.48		0.4878		98.0	70	130	0	0	
Surr: Toluene-d8	0.48		0.4878		98.2	70	130	0	0	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: mb-52785 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: PBS Batch ID: 52785 RunNo: 69294										
Prep Date: 5/30/2020 Analysis Date: 5/31/2020 SeqNo: 2402434 Units: %Rec										
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.4	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.46		0.5000		91.8	70	130			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: lcs-52785 SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: BatchQC Batch ID: 52785 RunNo: 69294										
Prep Date: 5/30/2020 Analysis Date: 5/31/2020 SeqNo: 2402435 Units: %Rec										
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.7	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: mb-52776	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401228	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		101	70	130			

Sample ID: ics-52776	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401229	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.5	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: 2005c44-002ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: L2	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401232	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.63	0	81.1	70	130			
Surr: BFB	510		492.6		104	70	130			

Sample ID: 2005c44-002amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: L2	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401233	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.8	24.20	0	74.8	70	130	9.76	20	
Surr: BFB	480		484.0		98.7	70	130	0	0	

Sample ID: mb-52785	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402463	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		97.4	70	130			

Sample ID: ics-52785	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402464	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		101	70	130			

Qualifiers:

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



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: 2005C44

RcptNo: 1

Received By: Scott Anderson 5/29/2020 11:05:00 AM

Completed By: Desiree Dominguez 5/29/2020 9:10:31 AM

Reviewed By: LB 5/29/20

Handwritten initials: ID

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: em 5/29/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Rows 1 and 2.

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 day Turn
 Standard Rush
 Project Name:

North Thistle 34 state Com 1H
 Project #:

Project Manager:

Ashley Maxwell

Sampler: SO

On Ice: Yes No

of Coolers: 2

Cooler Temp (including cp): 2.9 = 1.9
 2.4 = 0 = 3.7 (°C)

Container Type and # 402 Cool
 Preservative Type
 HEAL No. 2005C44

Date	Time	Matrix	Sample Name
5/27/20	2:01	Soil	L1
	2:02		L2
	2:03		L3
	2:05		L4
	2:05		L5
	2:06		L6
	2:08		L7
	2:11		L8
	2:12		L9
	2:16		L10
	2:18		L11
	2:19		L12

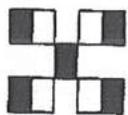
Date: 5/27/20 0910 Relinquished by: Sebastian Dreyer
 Date: 5/28/20 1900 Relinquished by:

Received by: Via: Date Time
 Received by: Via: Date Time

SPA Courier 52820 11:05
 Bill Devon WO# 20846919

Analysis Request

(STEX) MTBE / TMB's (8021) X
 TPH:8015D(GRO / DRO / MRO) X
 8081 Pesticides/8082 PCB's
 EDB (Method 504.1)
 PAHs by 8310 or 8270SIMS
 RCRA 8 Metals
 Cl, F, Br, NO₃, NO₂, PO₄, SO₄ X
 8260 (VOA)
 8270 (Semi-VOA)
 Total Coliform (Present/Absent)



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 day Turn
 Standard Rush

Project Name:

North This He 34 State Com IH
Project #:

Project Manager:

Ashley Maxwell

Sampler: SO

On Ice: Yes No

of Coolers: 2

Cooler Temp (including cp): 3.7 - 0 = 3.7 (°C)

Container Type and #
402

Preservative Type
Cool

HEAL No.
2005C44

-013
-014
-015
-016
-017
-018

Date Time Matrix Sample Name

5/21/20 2:19 Soil L13

2:21 L14

2:22 L15

2:23 L16

2:24 L17

2:25 L18

Date: 5/21/20 0930

Date: Fresh 1910

Relinquished by:

Relinquished by:

Received by:

Via:

Date: 5/28/20 0930

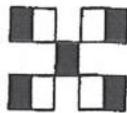
Date: 5:29:20 11:05

Remarks:

Analysis Request

TPH:8015D(GRO / DRO / MRO) X
8081 Pesticides/8082 PCBs
EDB (Method 504.1)
PAHs by 8310 or 8270SIMS
RCRA 8 Metals
Cd, F, Br, NO₃, NO₂, PO₄, SO₄ X
8260 (VOA)
8270 (Semi-VOA)
Total Coliform (Present/Absent)

(BTEX) MTBE / TMB's (8021) X



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Bill Devon WO# 20846919

STA Courier 5:29:20 11:05

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



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

June 08, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: North Thistle 34 State Com 1H

OrderNo.: 2005C44

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 18 sample(s) on 5/29/2020 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 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 in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:01:00 PM

Lab ID: 2005C44-001

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	3400	150		mg/Kg	50	6/5/2020 5:26:02 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Surr: BFB	101	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	5/30/2020 9:17:09 PM	52778
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 9:17:09 PM	52778
Surr: DNOP	76.6	55.1-146		%Rec	1	5/30/2020 9:17:09 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2020 2:22:50 AM	52776
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776
Surr: Toluene-d8	98.5	70-130		%Rec	1	5/31/2020 2:22:50 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L2

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:02:00 PM

Lab ID: 2005C44-002

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	5800	300		mg/Kg	100	6/5/2020 5:38:26 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Surr: BFB	99.6	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/30/2020 9:41:21 PM	52778
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 9:41:21 PM	52778
Surr: DNOP	82.4	55.1-146		%Rec	1	5/30/2020 9:41:21 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 3:48:14 AM	52776
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: Dibromofluoromethane	99.8	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776
Surr: Toluene-d8	96.2	70-130		%Rec	1	5/31/2020 3:48:14 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:03:00 PM

Lab ID: 2005C44-003

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	520	59		mg/Kg	20	6/4/2020 5:09:36 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Surr: BFB	95.9	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	5/30/2020 10:05:41 PM	52778
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/30/2020 10:05:41 PM	52778
Surr: DNOP	73.4	55.1-146		%Rec	1	5/30/2020 10:05:41 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 5:13:40 AM	52776
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776
Surr: Toluene-d8	99.8	70-130		%Rec	1	5/31/2020 5:13:40 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L4

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:05:00 PM

Lab ID: 2005C44-004

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 5:22:00 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Surr: BFB	98.8	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/30/2020 10:29:46 PM	52778
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 10:29:46 PM	52778
Surr: DNOP	78.0	55.1-146		%Rec	1	5/30/2020 10:29:46 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2020 5:42:11 AM	52776
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776
Surr: Toluene-d8	99.1	70-130		%Rec	1	5/31/2020 5:42:11 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L5

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:05:00 PM

Lab ID: 2005C44-005

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	110	60		mg/Kg	20	6/4/2020 5:59:14 PM	52873
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Surr: BFB	95.5	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	16	9.2		mg/Kg	1	5/30/2020 10:54:02 PM	52778
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 10:54:02 PM	52778
Surr: DNOP	68.3	55.1-146		%Rec	1	5/30/2020 10:54:02 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 6:10:41 AM	52776
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: 4-Bromofluorobenzene	88.4	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776
Surr: Toluene-d8	97.9	70-130		%Rec	1	5/31/2020 6:10:41 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L6

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:06:00 PM

Lab ID: 2005C44-006

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 7:01:17 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Surr: BFB	102	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	36	9.0		mg/Kg	1	5/30/2020 11:18:15 PM	52778
Motor Oil Range Organics (MRO)	67	45		mg/Kg	1	5/30/2020 11:18:15 PM	52778
Surr: DNOP	73.0	55.1-146		%Rec	1	5/30/2020 11:18:15 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 6:39:13 AM	52776
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: 4-Bromofluorobenzene	93.8	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776
Surr: Toluene-d8	103	70-130		%Rec	1	5/31/2020 6:39:13 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L7

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:08:00 PM

Lab ID: 2005C44-007

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	470	60		mg/Kg	20	6/4/2020 7:13:42 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Surr: BFB	95.6	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/30/2020 11:42:31 PM	52778
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 11:42:31 PM	52778
Surr: DNOP	66.7	55.1-146		%Rec	1	5/30/2020 11:42:31 PM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 7:07:39 AM	52776
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776
Surr: Toluene-d8	97.1	70-130		%Rec	1	5/31/2020 7:07:39 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L8

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:11:00 PM

Lab ID: 2005C44-008

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	5300	150		mg/Kg	50	6/5/2020 5:50:50 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Surr: BFB	98.8	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/31/2020 12:06:44 AM	52778
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/31/2020 12:06:44 AM	52778
Surr: DNOP	70.2	55.1-146		%Rec	1	5/31/2020 12:06:44 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 7:36:09 AM	52776
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776
Surr: Toluene-d8	98.6	70-130		%Rec	1	5/31/2020 7:36:09 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L9

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:12:00 PM

Lab ID: 2005C44-009

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	430	60		mg/Kg	20	6/4/2020 7:38:31 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Surr: BFB	95.4	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/31/2020 12:30:51 AM	52778
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/31/2020 12:30:51 AM	52778
Surr: DNOP	65.3	55.1-146		%Rec	1	5/31/2020 12:30:51 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 8:04:37 AM	52776
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: 4-Bromofluorobenzene	92.7	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776
Surr: Toluene-d8	98.7	70-130		%Rec	1	5/31/2020 8:04:37 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L10

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:16:00 PM

Lab ID: 2005C44-010

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 7:50:55 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Surr: BFB	96.1	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2020 12:55:01 AM	52778
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/31/2020 12:55:01 AM	52778
Surr: DNOP	59.8	55.1-146		%Rec	1	5/31/2020 12:55:01 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 8:33:05 AM	52776
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: Dibromofluoromethane	99.3	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776
Surr: Toluene-d8	97.2	70-130		%Rec	1	5/31/2020 8:33:05 AM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L11

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:18:00 PM

Lab ID: 2005C44-011

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:28:09 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Surr: BFB	104	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/31/2020 1:19:13 AM	52778
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/31/2020 1:19:13 AM	52778
Surr: DNOP	59.9	55.1-146		%Rec	1	5/31/2020 1:19:13 AM	52778
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Toluene	ND	0.048		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Ethylbenzene	ND	0.048		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Xylenes, Total	ND	0.096		mg/Kg	1	5/31/2020 2:12:17 PM	52776
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776
Surr: Toluene-d8	100	70-130		%Rec	1	5/31/2020 2:12:17 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L12

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:19:00 PM

Lab ID: 2005C44-012

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:40:33 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Surr: BFB	99.7	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/30/2020 3:34:19 PM	52782
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 3:34:19 PM	52782
Surr: DNOP	81.8	55.1-146		%Rec	1	5/30/2020 3:34:19 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 2:40:45 PM	52776
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776
Surr: Toluene-d8	98.9	70-130		%Rec	1	5/31/2020 2:40:45 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L13

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:19:00 PM

Lab ID: 2005C44-013

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 8:52:57 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Surr: BFB	99.0	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/30/2020 4:48:49 PM	52782
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/30/2020 4:48:49 PM	52782
Surr: DNOP	75.6	55.1-146		%Rec	1	5/30/2020 4:48:49 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 3:09:14 PM	52776
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776
Surr: Toluene-d8	97.9	70-130		%Rec	1	5/31/2020 3:09:14 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L14

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:21:00 PM

Lab ID: 2005C44-014

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:05:22 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Surr: BFB	97.8	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/30/2020 5:13:40 PM	52782
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 5:13:40 PM	52782
Surr: DNOP	76.8	55.1-146		%Rec	1	5/30/2020 5:13:40 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 3:37:42 PM	52776
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: Dibromofluoromethane	98.6	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776
Surr: Toluene-d8	90.5	70-130		%Rec	1	5/31/2020 3:37:42 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L15

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:22:00 PM

Lab ID: 2005C44-015

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:17:46 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Surr: BFB	99.5	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/30/2020 5:38:22 PM	52782
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/30/2020 5:38:22 PM	52782
Surr: DNOP	79.6	55.1-146		%Rec	1	5/30/2020 5:38:22 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2020 4:06:08 PM	52776
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776
Surr: Toluene-d8	96.4	70-130		%Rec	1	5/31/2020 4:06:08 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L16

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:23:00 PM

Lab ID: 2005C44-016

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:30:10 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Surr: BFB	97.6	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/30/2020 6:03:02 PM	52782
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/30/2020 6:03:02 PM	52782
Surr: DNOP	70.3	55.1-146		%Rec	1	5/30/2020 6:03:02 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Toluene	ND	0.050		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 4:34:36 PM	52776
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: Dibromofluoromethane	96.8	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776
Surr: Toluene-d8	99.7	70-130		%Rec	1	5/31/2020 4:34:36 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L17

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:24:00 PM

Lab ID: 2005C44-017

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:42:35 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Surr: BFB	103	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/30/2020 6:27:35 PM	52782
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/30/2020 6:27:35 PM	52782
Surr: DNOP	80.1	55.1-146		%Rec	1	5/30/2020 6:27:35 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Xylenes, Total	ND	0.097		mg/Kg	1	5/31/2020 5:03:05 PM	52776
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776
Surr: Toluene-d8	100	70-130		%Rec	1	5/31/2020 5:03:05 PM	52776

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 2005C44

Date Reported: 6/8/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L18

Project: North Thistle 34 State Com 1H

Collection Date: 5/27/2020 2:25:00 PM

Lab ID: 2005C44-018

Matrix: SOIL

Received Date: 5/29/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/4/2020 9:54:59 PM	52879
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Surr: BFB	95.6	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/30/2020 6:52:03 PM	52782
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/30/2020 6:52:03 PM	52782
Surr: DNOP	79.6	55.1-146		%Rec	1	5/30/2020 6:52:03 PM	52782
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Toluene	ND	0.049		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2020 5:31:32 PM	52776
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776
Surr: Toluene-d8	94.8	70-130		%Rec	1	5/31/2020 5:31:32 PM	52776

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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: MB-52873	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52873	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407918	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52873	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52873	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407919	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Sample ID: MB-52879	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 52879	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407961	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-52879	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 52879	RunNo: 69412								
Prep Date: 6/4/2020	Analysis Date: 6/4/2020	SeqNo: 2407962	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: LCS-52778	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52778	RunNo: 69268								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2400951	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	70	130			
Surr: DNOP	4.5		5.000		89.8	55.1	146			

Sample ID: MB-52778	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52778	RunNo: 69268								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2400952	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.5	55.1	146			

Sample ID: 2005C44-012AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: L12	Batch ID: 52782	RunNo: 69266								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2401101	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.2	47.4	136			
Surr: DNOP	3.2		5.000		63.5	55.1	146			

Sample ID: 2005C44-012AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: L12	Batch ID: 52782	RunNo: 69266								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2401102	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.8	48.78	0	88.7	47.4	136	15.4	43.4	
Surr: DNOP	3.5		4.878		72.2	55.1	146	0	0	

Sample ID: LCS-52782	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 52782	RunNo: 69266								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2401111	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	70	130			
Surr: DNOP	4.1		5.000		81.5	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: MB-52782	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 52782	RunNo: 69266								
Prep Date: 5/30/2020	Analysis Date: 5/30/2020	SeqNo: 2401112	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.4	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#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: mb-52776	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401185	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.5	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.2	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID: ics-52776	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/30/2020	SeqNo: 2401186	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.7	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.1	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.8	70	130			
Surr: Toluene-d8	0.48		0.5000		95.4	70	130			

Sample ID: 2005c44-001ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: L1	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401188	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9681	0	104	71.1	115			
Toluene	1.1	0.048	0.9681	0	109	79.6	132			
Ethylbenzene	1.1	0.048	0.9681	0	113	83.8	134			
Xylenes, Total	3.3	0.097	2.904	0	114	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.46		0.4840		95.4	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4840		93.7	70	130			
Surr: Dibromofluoromethane	0.50		0.4840		104	70	130			
Surr: Toluene-d8	0.50		0.4840		103	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: 2005c44-001amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: L1	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401189	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9756	0	97.9	71.1	115	4.92	20	
Toluene	1.0	0.049	0.9756	0	103	79.6	132	5.07	20	
Ethylbenzene	1.0	0.049	0.9756	0	107	83.8	134	5.18	20	
Xylenes, Total	3.1	0.098	2.927	0	107	82.4	132	5.82	20	
Surr: 1,2-Dichloroethane-d4	0.46		0.4878		94.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4878		99.5	70	130	0	0	
Surr: Dibromofluoromethane	0.48		0.4878		98.0	70	130	0	0	
Surr: Toluene-d8	0.48		0.4878		98.2	70	130	0	0	

Sample ID: mb-52785	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402434	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.4	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.46		0.5000		91.8	70	130			

Sample ID: lcs-52785	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402435	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.7	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2005C44

08-Jun-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: mb-52776	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401228	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		101	70	130			

Sample ID: lcs-52776	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401229	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.5	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: 2005c44-002ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: L2	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401232	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.63	0	81.1	70	130			
Surr: BFB	510		492.6		104	70	130			

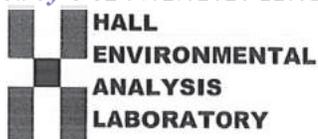
Sample ID: 2005c44-002amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: L2	Batch ID: 52776	RunNo: 69278								
Prep Date: 5/29/2020	Analysis Date: 5/31/2020	SeqNo: 2401233	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.8	24.20	0	74.8	70	130	9.76	20	
Surr: BFB	480		484.0		98.7	70	130	0	0	

Sample ID: mb-52785	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402463	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		97.4	70	130			

Sample ID: lcs-52785	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 52785	RunNo: 69294								
Prep Date: 5/30/2020	Analysis Date: 5/31/2020	SeqNo: 2402464	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		101	70	130			

Qualifiers:

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



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: 2005C44 RcptNo: 1

Received By: Scott Anderson 5/29/2020 11:05:00 AM

Completed By: Desiree Dominguez 5/29/2020 9:10:31 AM

Reviewed By: LB 5/29/20

Handwritten initials: ID

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: em 5/29/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Contains 2 rows of data.

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 day Turn
 Standard Rush
 Project Name: North Thistle 34 state Com 1H
 Project #:

Project Manager: Ashley Maxwell

Sampler: SO

On Ice: Yes No

of Coolers: 2

Cooler Temp (including CP): 2.4 = 3.7 (°C)

Container Type and # 402 Cool
 Preservative Type
 HEAL No. 2005C44

Date	Time	Matrix	Sample Name
5/27/20	2:01	Soil	L1
	2:02		L2
	2:03		L3
	2:05		L4
	2:05		L5
	2:06		L6
	2:08		L7
	2:11		L8
	2:12		L9
	2:16		L10
	2:18		L11
	2:19		L12

Date: 5/27/20 0910 Relinquished by: Sebastian Dreyer
 Date: 5/28/20 1900 Relinquished by:

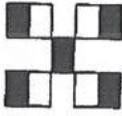
Received by: Via: Date Time 5/28/20 0930
 Received by: Via: Date Time 5/28/20 11:05

SPA Courier 52820 11:05 Bill Devon WO# 20846919

Analysis Request

Analysis Request	Result
(STEX) MTBE / TMB's (8021)	X
TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: AZ Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 day Turn
 Standard Rush

Project Name:

North This He 34 State Com IH
 Project #:

Project Manager:

Ashley Maxwell

Sampler: SO

On Ice: Yes No

of Coolers: 2

Cooler Temp (including cp): 3.7 - 0 = 3.7 (°C)

Container Type and #
 HEAL No. 2005C44

Preservative Type
 Cool

Date	Time	Matrix	Sample Name	HEAL No.
5/21/20	2:19	Soil	L13	-013
	2:21		L14	-014
	2:22		L15	-015
	2:23		L16	-016
	2:24		L17	-017
	2:25		L18	-018

Date: 5/21/20 0930
 Relinquished by: *Debra Ann Engage*

Date: 5/28/20 0930
 Relinquished by: *Bill Devon*

Analysis Request

TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCBs	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	X
Ch F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks:

Bill Devon WO# 20846919

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



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

September 11, 2020

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: North Thistle 34 State Com 1H

OrderNo.: 2008G95

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 16 sample(s) on 8/29/2020 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 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 in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: CS1

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:00:00 AM

Lab ID: 2008G95-001

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	210	59		mg/Kg	20	9/4/2020 10:49:19 PM	54963
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/31/2020 6:37:37 PM	54790
Surr: BFB	96.8	70-130		%Rec	1	8/31/2020 6:37:37 PM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/3/2020 9:01:37 PM	54845
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/3/2020 9:01:37 PM	54845
Surr: DNOP	79.0	30.4-154		%Rec	1	9/3/2020 9:01:37 PM	54845
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	8/31/2020 6:37:37 PM	54790
Toluene	ND	0.050		mg/Kg	1	8/31/2020 6:37:37 PM	54790
Ethylbenzene	ND	0.050		mg/Kg	1	8/31/2020 6:37:37 PM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	8/31/2020 6:37:37 PM	54790
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%Rec	1	8/31/2020 6:37:37 PM	54790
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	8/31/2020 6:37:37 PM	54790
Surr: Dibromofluoromethane	90.4	70-130		%Rec	1	8/31/2020 6:37:37 PM	54790
Surr: Toluene-d8	103	70-130		%Rec	1	8/31/2020 6:37:37 PM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: CS2

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:05:00 AM

Lab ID: 2008G95-002

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	330	60		mg/Kg	20	9/4/2020 11:01:43 PM	54963
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/31/2020 8:06:08 PM	54790
Surr: BFB	97.3	70-130		%Rec	1	8/31/2020 8:06:08 PM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/3/2020 9:11:51 PM	54845
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/3/2020 9:11:51 PM	54845
Surr: DNOP	77.6	30.4-154		%Rec	1	9/3/2020 9:11:51 PM	54845
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	8/31/2020 8:06:08 PM	54790
Toluene	ND	0.049		mg/Kg	1	8/31/2020 8:06:08 PM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	8/31/2020 8:06:08 PM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	8/31/2020 8:06:08 PM	54790
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%Rec	1	8/31/2020 8:06:08 PM	54790
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	8/31/2020 8:06:08 PM	54790
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	8/31/2020 8:06:08 PM	54790
Surr: Toluene-d8	105	70-130		%Rec	1	8/31/2020 8:06:08 PM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: CS3

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:10:00 AM

Lab ID: 2008G95-003

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	170	60		mg/Kg	20	9/4/2020 11:38:57 PM	54963
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/31/2020 8:35:34 PM	54790
Surr: BFB	97.7	70-130		%Rec	1	8/31/2020 8:35:34 PM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2020 9:21:57 PM	54845
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	9/3/2020 9:21:57 PM	54845
Surr: DNOP	80.0	30.4-154		%Rec	1	9/3/2020 9:21:57 PM	54845
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	8/31/2020 8:35:34 PM	54790
Toluene	ND	0.050		mg/Kg	1	8/31/2020 8:35:34 PM	54790
Ethylbenzene	ND	0.050		mg/Kg	1	8/31/2020 8:35:34 PM	54790
Xylenes, Total	ND	0.10		mg/Kg	1	8/31/2020 8:35:34 PM	54790
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	8/31/2020 8:35:34 PM	54790
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	8/31/2020 8:35:34 PM	54790
Surr: Dibromofluoromethane	96.9	70-130		%Rec	1	8/31/2020 8:35:34 PM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	8/31/2020 8:35:34 PM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: CS4

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:15:00 AM

Lab ID: 2008G95-004

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/4/2020 11:51:21 PM	54963
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/31/2020 9:05:05 PM	54790
Surr: BFB	98.1	70-130		%Rec	1	8/31/2020 9:05:05 PM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	9/3/2020 9:32:10 PM	54845
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/3/2020 9:32:10 PM	54845
Surr: DNOP	84.6	30.4-154		%Rec	1	9/3/2020 9:32:10 PM	54845
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	8/31/2020 9:05:05 PM	54790
Toluene	ND	0.049		mg/Kg	1	8/31/2020 9:05:05 PM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	8/31/2020 9:05:05 PM	54790
Xylenes, Total	ND	0.098		mg/Kg	1	8/31/2020 9:05:05 PM	54790
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%Rec	1	8/31/2020 9:05:05 PM	54790
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	8/31/2020 9:05:05 PM	54790
Surr: Dibromofluoromethane	99.5	70-130		%Rec	1	8/31/2020 9:05:05 PM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	8/31/2020 9:05:05 PM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW1

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:20:00 AM

Lab ID: 2008G95-005

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 12:03:45 AM	54963
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/31/2020 11:33:11 PM	54790
Surr: BFB	94.7	70-130		%Rec	1	8/31/2020 11:33:11 PM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	9.0	8.9		mg/Kg	1	9/3/2020 9:42:16 PM	54845
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/3/2020 9:42:16 PM	54845
Surr: DNOP	67.9	30.4-154		%Rec	1	9/3/2020 9:42:16 PM	54845
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	8/31/2020 11:33:11 PM	54790
Toluene	ND	0.050		mg/Kg	1	8/31/2020 11:33:11 PM	54790
Ethylbenzene	ND	0.050		mg/Kg	1	8/31/2020 11:33:11 PM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	8/31/2020 11:33:11 PM	54790
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	8/31/2020 11:33:11 PM	54790
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/31/2020 11:33:11 PM	54790
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	8/31/2020 11:33:11 PM	54790
Surr: Toluene-d8	104	70-130		%Rec	1	8/31/2020 11:33:11 PM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW2

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:25:00 AM

Lab ID: 2008G95-006

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 12:40:59 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 12:02:37 AM	54790
Surr: BFB	97.1	70-130		%Rec	1	9/1/2020 12:02:37 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/3/2020 10:22:28 PM	54858
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/3/2020 10:22:28 PM	54858
Surr: DNOP	104	30.4-154		%Rec	1	9/3/2020 10:22:28 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	9/1/2020 12:02:37 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 12:02:37 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 12:02:37 AM	54790
Xylenes, Total	ND	0.097		mg/Kg	1	9/1/2020 12:02:37 AM	54790
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	9/1/2020 12:02:37 AM	54790
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	9/1/2020 12:02:37 AM	54790
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/1/2020 12:02:37 AM	54790
Surr: Toluene-d8	107	70-130		%Rec	1	9/1/2020 12:02:37 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW3

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:30:00 AM

Lab ID: 2008G95-007

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 1:18:13 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 12:32:12 AM	54790
Surr: BFB	97.6	70-130		%Rec	1	9/1/2020 12:32:12 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	18	10		mg/Kg	1	9/3/2020 10:52:46 PM	54858
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/3/2020 10:52:46 PM	54858
Surr: DNOP	87.9	30.4-154		%Rec	1	9/3/2020 10:52:46 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 12:32:12 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 12:32:12 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 12:32:12 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 12:32:12 AM	54790
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	9/1/2020 12:32:12 AM	54790
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	9/1/2020 12:32:12 AM	54790
Surr: Dibromofluoromethane	95.2	70-130		%Rec	1	9/1/2020 12:32:12 AM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	9/1/2020 12:32:12 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW4

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:35:00 AM

Lab ID: 2008G95-008

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 1:30:37 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 1:01:43 AM	54790
Surr: BFB	98.2	70-130		%Rec	1	9/1/2020 1:01:43 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/3/2020 11:02:53 PM	54858
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/3/2020 11:02:53 PM	54858
Surr: DNOP	95.9	30.4-154		%Rec	1	9/3/2020 11:02:53 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 1:01:43 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 1:01:43 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 1:01:43 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 1:01:43 AM	54790
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	9/1/2020 1:01:43 AM	54790
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/1/2020 1:01:43 AM	54790
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/1/2020 1:01:43 AM	54790
Surr: Toluene-d8	108	70-130		%Rec	1	9/1/2020 1:01:43 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW5

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:40:00 AM

Lab ID: 2008G95-009

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 2:07:51 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 1:31:11 AM	54790
Surr: BFB	101	70-130		%Rec	1	9/1/2020 1:31:11 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/3/2020 11:12:58 PM	54858
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/3/2020 11:12:58 PM	54858
Surr: DNOP	90.2	30.4-154		%Rec	1	9/3/2020 11:12:58 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 1:31:11 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 1:31:11 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 1:31:11 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 1:31:11 AM	54790
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	9/1/2020 1:31:11 AM	54790
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	9/1/2020 1:31:11 AM	54790
Surr: Dibromofluoromethane	96.9	70-130		%Rec	1	9/1/2020 1:31:11 AM	54790
Surr: Toluene-d8	105	70-130		%Rec	1	9/1/2020 1:31:11 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW6

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:45:00 AM

Lab ID: 2008G95-010

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	130	60		mg/Kg	20	9/5/2020 2:20:16 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 2:00:48 AM	54790
Surr: BFB	97.5	70-130		%Rec	1	9/1/2020 2:00:48 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/3/2020 11:23:00 PM	54858
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/3/2020 11:23:00 PM	54858
Surr: DNOP	93.0	30.4-154		%Rec	1	9/3/2020 11:23:00 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	9/1/2020 2:00:48 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 2:00:48 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 2:00:48 AM	54790
Xylenes, Total	ND	0.097		mg/Kg	1	9/1/2020 2:00:48 AM	54790
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%Rec	1	9/1/2020 2:00:48 AM	54790
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	9/1/2020 2:00:48 AM	54790
Surr: Dibromofluoromethane	94.8	70-130		%Rec	1	9/1/2020 2:00:48 AM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	9/1/2020 2:00:48 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW7

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:50:00 AM

Lab ID: 2008G95-011

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 2:32:40 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 2:30:19 AM	54790
Surr: BFB	97.4	70-130		%Rec	1	9/1/2020 2:30:19 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/3/2020 11:33:03 PM	54858
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/3/2020 11:33:03 PM	54858
Surr: DNOP	88.9	30.4-154		%Rec	1	9/3/2020 11:33:03 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 2:30:19 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 2:30:19 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 2:30:19 AM	54790
Xylenes, Total	ND	0.098		mg/Kg	1	9/1/2020 2:30:19 AM	54790
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	9/1/2020 2:30:19 AM	54790
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	9/1/2020 2:30:19 AM	54790
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	9/1/2020 2:30:19 AM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	9/1/2020 2:30:19 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW8

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 9:55:00 AM

Lab ID: 2008G95-012

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	59		mg/Kg	20	9/5/2020 2:45:04 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 2:59:47 AM	54790
Surr: BFB	95.8	70-130		%Rec	1	9/1/2020 2:59:47 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/3/2020 11:43:08 PM	54858
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/3/2020 11:43:08 PM	54858
Surr: DNOP	112	30.4-154		%Rec	1	9/3/2020 11:43:08 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 2:59:47 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 2:59:47 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 2:59:47 AM	54790
Xylenes, Total	ND	0.098		mg/Kg	1	9/1/2020 2:59:47 AM	54790
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	9/1/2020 2:59:47 AM	54790
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	9/1/2020 2:59:47 AM	54790
Surr: Dibromofluoromethane	97.7	70-130		%Rec	1	9/1/2020 2:59:47 AM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	9/1/2020 2:59:47 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW9

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 10:00:00 AM

Lab ID: 2008G95-013

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 2:57:29 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/1/2020 3:29:28 AM	54790
Surr: BFB	97.4	70-130		%Rec	1	9/1/2020 3:29:28 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/3/2020 11:53:10 PM	54858
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/3/2020 11:53:10 PM	54858
Surr: DNOP	79.2	30.4-154		%Rec	1	9/3/2020 11:53:10 PM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 3:29:28 AM	54790
Toluene	ND	0.050		mg/Kg	1	9/1/2020 3:29:28 AM	54790
Ethylbenzene	ND	0.050		mg/Kg	1	9/1/2020 3:29:28 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 3:29:28 AM	54790
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	9/1/2020 3:29:28 AM	54790
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/1/2020 3:29:28 AM	54790
Surr: Dibromofluoromethane	97.3	70-130		%Rec	1	9/1/2020 3:29:28 AM	54790
Surr: Toluene-d8	106	70-130		%Rec	1	9/1/2020 3:29:28 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW10

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 10:05:00 AM

Lab ID: 2008G95-014

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 3:09:54 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 3:58:54 AM	54790
Surr: BFB	95.6	70-130		%Rec	1	9/1/2020 3:58:54 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/4/2020 12:03:12 AM	54858
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/4/2020 12:03:12 AM	54858
Surr: DNOP	85.2	30.4-154		%Rec	1	9/4/2020 12:03:12 AM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 3:58:54 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 3:58:54 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 3:58:54 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 3:58:54 AM	54790
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%Rec	1	9/1/2020 3:58:54 AM	54790
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	9/1/2020 3:58:54 AM	54790
Surr: Dibromofluoromethane	98.1	70-130		%Rec	1	9/1/2020 3:58:54 AM	54790
Surr: Toluene-d8	105	70-130		%Rec	1	9/1/2020 3:58:54 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW11

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 10:10:00 AM

Lab ID: 2008G95-015

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 3:22:18 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 4:28:30 AM	54790
Surr: BFB	96.7	70-130		%Rec	1	9/1/2020 4:28:30 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/4/2020 12:13:08 AM	54858
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/4/2020 12:13:08 AM	54858
Surr: DNOP	101	30.4-154		%Rec	1	9/4/2020 12:13:08 AM	54858
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 4:28:30 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 4:28:30 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 4:28:30 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 4:28:30 AM	54790
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	9/1/2020 4:28:30 AM	54790
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	9/1/2020 4:28:30 AM	54790
Surr: Dibromofluoromethane	98.5	70-130		%Rec	1	9/1/2020 4:28:30 AM	54790
Surr: Toluene-d8	103	70-130		%Rec	1	9/1/2020 4:28:30 AM	54790

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 2008G95

Date Reported: 9/11/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW12

Project: North Thistle 34 State Com 1H

Collection Date: 8/27/2020 10:15:00 AM

Lab ID: 2008G95-016

Matrix: SOIL

Received Date: 8/29/2020 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	9/5/2020 3:34:43 AM	54966
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 4:57:55 AM	54790
Surr: BFB	96.7	70-130		%Rec	1	9/1/2020 4:57:55 AM	54790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/1/2020 9:03:57 PM	54804
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/1/2020 9:03:57 PM	54804
Surr: DNOP	65.4	30.4-154		%Rec	1	9/1/2020 9:03:57 PM	54804
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/1/2020 4:57:55 AM	54790
Toluene	ND	0.049		mg/Kg	1	9/1/2020 4:57:55 AM	54790
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 4:57:55 AM	54790
Xylenes, Total	ND	0.099		mg/Kg	1	9/1/2020 4:57:55 AM	54790
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	9/1/2020 4:57:55 AM	54790
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/1/2020 4:57:55 AM	54790
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	9/1/2020 4:57:55 AM	54790
Surr: Toluene-d8	105	70-130		%Rec	1	9/1/2020 4:57:55 AM	54790

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#: 2008G95

11-Sep-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: MB-54963	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 54963	RunNo: 71641								
Prep Date: 9/4/2020	Analysis Date: 9/4/2020	SeqNo: 2504308	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-54963	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 54963	RunNo: 71641								
Prep Date: 9/4/2020	Analysis Date: 9/4/2020	SeqNo: 2504309	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Sample ID: MB-54966	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 54966	RunNo: 71641								
Prep Date: 9/4/2020	Analysis Date: 9/5/2020	SeqNo: 2504340	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-54966	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 54966	RunNo: 71641								
Prep Date: 9/4/2020	Analysis Date: 9/5/2020	SeqNo: 2504341	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 2008G95

11-Sep-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: LCS-54804	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 54804	RunNo: 71555								
Prep Date: 8/31/2020	Analysis Date: 9/1/2020	SeqNo: 2499587	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	79.0	70	130			
Surr: DNOP	2.4		5.000		47.5	30.4	154			

Sample ID: MB-54804	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 54804	RunNo: 71555								
Prep Date: 8/31/2020	Analysis Date: 9/1/2020	SeqNo: 2499592	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	5.1		10.00		51.1	30.4	154			

Sample ID: 2008G95-006AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW2	Batch ID: 54858	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503452	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.8	48.92	7.645	95.2	47.4	136			
Surr: DNOP	3.8		4.892		77.8	30.4	154			

Sample ID: 2008G95-006AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW2	Batch ID: 54858	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503453	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.2	45.87	7.645	84.9	47.4	136	15.1	43.4	
Surr: DNOP	3.6		4.587		78.6	30.4	154	0	0	

Sample ID: LCS-54845	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 54845	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503516	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	93.0	70	130			
Surr: DNOP	3.9		5.000		77.9	30.4	154			

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#: 2008G95

11-Sep-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: LCS-54858	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 54858	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503517	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	70	130			
Surr: DNOP	4.8		5.000		95.6	30.4	154			

Sample ID: MB-54845	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 54845	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503520	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.8		10.00		77.8	30.4	154			

Sample ID: MB-54858	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 54858	RunNo: 71591								
Prep Date: 9/1/2020	Analysis Date: 9/3/2020	SeqNo: 2503521	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		96.3	30.4	154			

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#: 2008G95

11-Sep-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: ics-54790	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54790	RunNo: 71497								
Prep Date: 8/30/2020	Analysis Date: 8/31/2020	SeqNo: 2498258	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.6	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID: mb-54790	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 54790	RunNo: 71497								
Prep Date: 8/30/2020	Analysis Date: 8/31/2020	SeqNo: 2498259	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.8	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008G95

11-Sep-20

Client: Souder, Miller & Associates
Project: North Thistle 34 State Com 1H

Sample ID: ics-54790	SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: LCSS	Batch ID: 54790		RunNo: 71497							
Prep Date: 8/30/2020	Analysis Date: 8/31/2020		SeqNo: 2498306		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.2	70	130			
Surr: BFB	480		500.0		95.1	70	130			

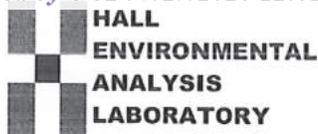
Sample ID: mb-54790	SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: PBS	Batch ID: 54790		RunNo: 71497							
Prep Date: 8/30/2020	Analysis Date: 8/31/2020		SeqNo: 2498307		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	480		500.0		96.1	70	130			

Sample ID: 2008g95-001ams	SampType: MS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: CS1	Batch ID: 54790		RunNo: 71497							
Prep Date: 8/30/2020	Analysis Date: 8/31/2020		SeqNo: 2498312		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.49	0	96.1	49.2	122			
Surr: BFB	450		489.7		92.1	70	130			

Sample ID: 2008g95-001amsd	SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: CS1	Batch ID: 54790		RunNo: 71497							
Prep Date: 8/30/2020	Analysis Date: 8/31/2020		SeqNo: 2498313		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.56	0	90.0	49.2	122	6.28	20	
Surr: BFB	460		491.2		93.3	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



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

Sample Log-In Check List

Client Name: Souder, Miller & Associates

Work Order Number: 2008G95

RcptNo: 1

Received By: 8/28/2020 8:30:00 AM

Completed By:

Reviewed By: VVZ 8/29

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: DAD 8/29/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Rows 1 and 2.

Chain-of-Custody Record

Client: SMA-Carlsted

Mailing Address: _____

Phone #: _____

email or Fax#: _____

QA/QC Package: Standard Level 4 (Full Validation) AZ Compliance Other

Accreditation: NELAC EDD (Type) _____

Turn-Around Time: 5 Day

Standard Rush

Project Name: North Trustle 34 State Com # 11

Project #: _____

Project Manager: Lynn Acosta

Sampler: _____

On Ice: Yes No

of Coolers: 2 H.I. - 0.0 = 4.1 °C

Cooler Temp (including CF): 0.9 - 0 = 0.9 (°C)



www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request	
BTEX / MTBE / TMBs (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCBs	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
8/27	9:00	Soil	CS1	402	Cool	2008695
	9:25		CS2			-001
	9:10		CS3			-002
	9:15		CS4			-003
	9:20		SW1			-004
	9:25		SW2			-005
	9:30		SW3			-006
	9:35		SW4			-007
	9:40		SW5			-008
	9:45		SW6			-009
	9:50		SW7			-010
	9:55		SW8			-011

Received by: Williamine Date: 8/28/20 Time: 12:00

Relinquished by: Phil Smith

Received by: Bill to Devon Date: 8/29/20 Time: 8:30

Remarks: Bill to Devon

APPENDIX E PHOTO LOG



256°SW (T) 32.342051, -103.567312 ±2m 1060 m





27 Aug 2020, 14:51:55

West Elevation

☉ 111°E (T) ● 32.342191, -103.56736 ±1m ▲ 1065 m





300°W (T) 32.342064, -103.567345 ±2m ▲ 1060 m





277°W (T) 32.342139, -103.567502 ±2m ▲ 1060 m





134°SE (T) 32.342072, -103.567419 ±2m ▲ 1058 m





229°SW (T) 32.342213, -103.567484 ±2m ▲ 1062 m



SE



119°E (T) 32.342079, -103.567517 ±1m ▲ 1059 m





27 Aug 2020, 14:52:46



68°NE (T) 32.341981, -103.567525 ±1m ▲ 1060 m



East Elevation

☉ 279°W (T) ● 32.342164, -103.56719 ±1m ▲ 1065 m



devon

IN CASE OF EMERGENCY:
1-800-214-2154

SAFETY FIRST!

DANGER	NOTICE
NO SMOKING	NO TRESPASSING AUTHORIZED PERSONNEL ONLY
CAUTION HARD HATS, SAFETY GLASSES, STEEL TOE BOOTS, FRC REQUIRED	DANGER H ₂ S GAS MAY BE PRESENT

NOTICE

THE USE OR POSSESSION OF ILLEGAL DRUGS OR DRUG PARAPHERNALIA BY ANYONE WHILE ON DEVON ENERGY PRODUCTION COMPANY, L.P. OWNED OR LEASED PROPERTY IS PROHIBITED. EXCEPT WHERE SPECIFICALLY AUTHORIZED, THE USE OR POSSESSION OF ALCOHOLIC BEVERAGES, FIREARMS OR WEAPONS IS ALSO PROHIBITED. ALL PERSONS AND VEHICLES ON COMPANY PROPERTY ARE SUBJECT TO SEARCH AT ANY TIME.

devon

NORTH THISTLE 34 STATE COM 1H
30-025-42465
SL: SEC.34-T22S-R33E 290'FSL & 485'FWL
BL: SEC.34-T22S-R33E 330'FNL & 485'FWL
LEA COUNTY, NEW MEXICO
LAT. N 32° 20' 31.2" LONG. W 103° 34' 1.2"
DEVON CORPORATE CONTACT: 800-361-3377

devon

NORTH THISTLE 34 STATE COM 2H
30-025-42698
SL: SEC.34-T22S-R32E 330'FSL & 485'FWL
BL: SEC.34-T22S-R32E 330'FNL & 485'FWL
LEA COUNTY, NEW MEXICO
LAT. N 32° 20' 30.863" LONG. W 103° 34' 2.073"
DEVON CORPORATE CONTACT: 800-361-3377

North Elevation

☉ 207°S (T) ● 32.342232, -103.567265 ±1m ▲ 1065 m



District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 10413

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 10413
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	11/2/2022