

March 7, 2019

#5E27499-BG29

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

SUBJECT: Remediation Closure Report for the Black River 15 10 State Com #3H Release (2RP-5095), Malaga, Eddy County, New Mexico

Dear Mr. Bratcher:

On behalf of Marathon Oil Permian LLC (Marathon), 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 Black River 15 10 State Com #3H site. The site is in Unit O, Section 15, Township 24S, Range 27E, Eddy County, New Mexico, on State land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1: Release Information and Closure Criteria					
Name	Black River 15 10 State Com #3H	Company	Marathon Oil Permian LLC		
API Number	30-025-43960	Location	32.21068961° -104.17662202°		
Incident Number	2RP-5095				
Estimated Date of Release	November 18, 2018	Date Reported to NMOCD	November 18, 2018		
Land Owner	State	Reported To	NMOCD, State Land Office		
Source of Release	Flare				
Released Volume	0.56 bbls	Released Material	Crude Oil		
Recovered Volume	0 bbls	Net Release	0.56 bbls		
NMOCD Closure Criteria	51-100 feet to groundwater				
SMA Response Dates	December 15, 2018 and January 2, 2019				

Table 1 summarizes release information and Closure Criteria.

1.0 Background

On November 18, 2018, a release was discovered at the Black River 15 10 State Com #3H site due to a small fire from the flare. The heater treater hi-leveled allowing fluids to travel down the flare line and exit the flare. The fire was observed around the perimeter of the flare and self-extinguished. Initial response activities were conducted by the operator, and included site stabilization. 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 Black River 15 10 State Com #3H is located approximately six (6) miles west of Malaga, New Mexico on State land at an elevation of approximately 3,229 feet above mean sea level (amsl).

Based upon water well data (Appendix B), depth to groundwater in the area is estimated to be seventy (70) feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 1/18/2019). The nearest significant watercourse is Beaman Tank, located approximately one (1) mile to the west. Figure 2 illustrates the site to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

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

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

3.0 Release Characterization and Remediation Activities

On December 15, 2018, SMA personnel arrived on site in response to the release associated with Black River 15 10 State Com #3H. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 2000 photoionization detector (PID).

A total of four (4) sample locations (L1-L4) were investigated using a hand-auger, to depths up to 6 inches bgs. A total of four (4) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

On January 2, 2019, SMA returned to the site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for hydrocarbon using a PID. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. The final excavated area measured approximately 50 feet by 50 feet by 1-foot deep. NMOCD was notified on December 31, 2018 that closure sampling was anticipated to occur on January 2, 2019.

A total of eight (8) composite samples (CS1-CS4 and CSW1-CSW4) were collected as confirmation that the release has been remediated. Four samples (CS1-CS4) were collected from the bottom of the excavation at depth/s of one-foot bgs, and four sidewall samples (CSW1-CSW4) were collected from each cardinal direction of the sidewalls. The 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. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

Figure 3 shows the extent of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D. All results are below the NMOCD Closure Criteria for this site; SMA recommends no further action for release 2RP-5095.

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 an NMOCD permitted disposal facility.

5.0 Scope and Limitations

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

If there are any questions regarding this report, please contact either Heather Patterson at 575-200-5343 or Shawna Chubbuck at 505-325-7535.

Submitted by: SOUDER, MILLER & ASSOCIATES Reviewed by:

Ashley Maxwell Project Scientist

hauna Chubbuck

Shawna Chubbuck Senior Scientist

ATTACHMENTS:

Figures:

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

Tables:

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

Appendices:

Appendix A: Form C141 Appendix B: Well Water Data Appendix C: Field Notes and Photo Documentation Appendix D: Laboratory Analytical Reports

FIGURES



NORTH 0 0.125 0.25 0.5 Miles		Legend Black River 15-10 State Com 3H Significant Watercourse 500 ft Radius Lakes/Playas FEMA Flood Zones
Surface Black River 15 S 15-T. Black River 15 S 15-T. Black River 15 S 15-T. Date: Date: Date: Descr	e Water Protection Map 5-10 State Com 3H - Marathon 24S-R27E, New Mexico Drawn Checked Approved	 201 South Halaguena Street Carlsbad, New Mexico 88221 (575) 689-7040 www.soudermiller.com rving the Southwest & Rocky Mountains



TABLES

Table 2: NMOCD Closure Criteria

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)	Source/Notes	
Depth to Groundwater (feet bgs)	70	NMOSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	3,304	Figure 1, NMOSE
Hortizontal Distance to Nearest Significant Watercourse (ft)	1 mile	Figure 1, USGS Topo Map

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

Table 3: Summary of Sample Results

Sample	Sample	Depth	Action	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
ID	Date	(feet bgs)	Taken	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
	NMOCD CI	osure Criteria		50	10	1,0	000		2,500	10,000
L1	12/15/2018	Surface	Excavate	64.8	4.5	280	980	1,600	2,860	<30
L2	12/15/2018	Surface	Excavate	15.43	0.43	77	770	1,200	2,047	83
L3	12/15/2018	Surface	Excavate	21.67	0.77	100	1,200	1,100	2,400	<30
L4	12/15/2018	Surface	Excavate	9.83	0.23	51	8,800	7,600	16,451	<30
CS1	1/2/2019	1	in-situ	<0.220	<0.024	<4.9	<9.7	<48	<62.6	<30
CS2	1/2/2019	1	in-situ	<0.215	<0.024	<4.8	<9.3	<47	<61.1	<30
CS3	1/5/2019	1	in-situ	<0.220	<0.024	<4.9	<9.5	<47	<61.4	110
CS4	1/5/2019	1	in-situ	<0.224	<0.025	<5.0	130	87	217	31
CSW1	1/5/2019	0-1	in-situ	<0.210	<0.023	<4.7	<9.4	<47	<61.1	<30
CSW2	1/5/2019	0-1	in-situ	<0.210	<0.023	<4.7	11	<46	11	<30
CSW3	1/5/2019	0-1	in-situ	<0.211	<0.023	<4.6	51	<49	51	<30
CSW4	1/5/2019	0-1	in-situ	<0.213	<0.024	<4.7	430	930	1,360	<30

"--" = Not Analyzed



APPENDIX A FORM C141

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

State of New Mexico Energy Minerals and Natural **Resources Department**

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

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Incident ID	NAB1834529793
District RP	2RP-5095
Facility ID	
Application ID	pAB1834529506

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD) NAB1834529793
Contact mailing address	

Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name:

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Page 2

State of New Mexico Oil Conservation Division

Incident ID	NAB1834529793
District RP	2RP-5095
Facility ID	
Application ID	pAB1834529506

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Initial Response

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

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name:	Title:
Signature: <u>Callie Karrigan</u>	Date:
email:	Telephone:
OCD Only Received by: Multin Antamante	Date: <u>12/11/2018</u>

State of New Mexico Oil Conservation Division

Incident ID	nAB1834529793
District RP	2RP-5095
Facility ID	
Application ID	pAB1834529506

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>70</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🖂 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Form C-141	State of New Mexico	Incident ID	- AD1924520702	
Page 4	Oil Conservation Division	District RP	11AD1834329793	
C		Facility ID	2RI-3093	
		Application ID	pAB1834529506	
I hereby certify that the inf regulations all operators ar public health or the environ failed to adequately investi addition, OCD acceptance and/or regulations. Printed Name:Callie Signature:Callie email:cnkarrigan@r	Formation given above is true and complete to the best of my k e required to report and/or file certain release notifications and nment. The acceptance of a C-141 report by the OCD does no igate and remediate contamination that pose a threat to ground of a C-141 report does not relieve the operator of responsibilit Karrigan Title: <i>ie Karrigan</i> Telepl marathonoil.com Telepl	nowledge and understand that purs l perform corrective actions for reli- t relieve the operator of liability sh water, surface water, human health y for compliance with any other fe 	Suant to OCD rules and eases which may endanger rould their operations have a or the environment. In ederal, state, or local laws	
OCD Only				
Received by:	Da	ite:		

State of New Mexico Oil Conservation Division

Incident ID	nAB1834529793
District RP	2RP-5095
Facility ID	
Application ID	pAB1834529506

Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: ____Callie Karrigan_____ Title: ____HES Professional_____ Signature: *Callie Karrigan_____* Date: ______ Date: ______ Telephone: _____575-297-0956_____ email: cnkarrigan@marathonoil.com **OCD Only** Received by: Date: Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations. Closure Approved by: Date: Printed Name: Title:

APPENDIX B GROUND WATER DATA



POD sum indicates the POD has been replaced & no longer serves a water right file.)	O=orphaned, C=the file is closed)	(quarters a (quarters a	are 1=NW are smalles	2=NE 3= at to larg	SW 4=SE) est) (NA) AD83 UTM in me	eters)	(1	n feet)	
POD Number	POD Sub- Code basin Co	Q Q Q unty 64 16 4	Sec Tws	Rng	x	Y	Distance	Depth Well	Depth Water	Water Column
<u>C 01452</u>	C E	ED	22 24S	27E	577435	3563175* 🌍 Avera	925 ge Depth to	95 Water:	70 70	25 feet
							Minimum Maximum	Depth: Depth:	70 70	feet feet

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 577595.25

Northing (Y): 3564086.68

Radius: 1610

*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.

APPENDIX C FIELD NOTES & PHOTO DOCUMENTATION

Date: Black Kiver 1510 state com #3H 01-02-2018										
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:		
CS1	1620			0.0	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	no the octor		
CSZ	1612			0.0	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	D ry Moist Wet	no He odor		
C 5 3	1614			0.0	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	no HC odor		
CSY	1616			3.6	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Røck S øn d Silt Clay	- Bry- Moist Wet	no HC odor		
CSW 1	1618			0.0	Light Dark Tan B row n Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	- Dry - Moist Wet	no the ador		
CSW Z	1620			2.7	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sond Silt Clay	Dry Moist Wet	no the oder		
$(s \omega 3)$	16 22			12.5	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	D ry Moist Wet	no the oder		
CSW Y	1624			49.8	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Boek Sand Silt Clay	-Dry Moist Wet	no HC odor		
					Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet			

1

** **

Photo Log Photo Taken January 2, 2019 Facing west

32.21133, -104.17662



Photo Taken January 2, 2019 Facing North

32.21112, -104.176887



APPENDIX D LABORATORY ANALYTICAL REPORTS



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

December 26, 2018

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

RE: Black River 15 10 3H

OrderNo.: 1812995

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/18/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 12/26/2018

Hall Environmental Analysis Laboratory, Inc. **CLIENT:** Souder, Miller & Associates Client Sample ID: L1 Project: Black River 15 10 3H Collection Date: 12/15/2018 9:10:00 AM

Lab ID: 1812995-001	Matrix: SOIL	Received Date: 12/18/2018 8:50:00 AM								
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch			
EPA METHOD 300.0: ANIONS						Analyst	MRA			
Chloride	ND	30		mg/Kg	20	12/21/2018 3:26:52 AM	42247			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	: Irm			
Diesel Range Organics (DRO)	980	97		mg/Kg	10	12/21/2018 1:00:36 PM	42209			
Motor Oil Range Organics (MRO)	1600	490		mg/Kg	10	12/21/2018 1:00:36 PM	42209			
Surr: DNOP	0	50.6-138	S	%Rec	10	12/21/2018 1:00:36 PM	42209			
EPA METHOD 8015D: GASOLINE RANG	E					Analyst	: NSB			
Gasoline Range Organics (GRO)	280	47		mg/Kg	10	12/19/2018 9:53:19 PM	42178			
Surr: BFB	143	73.8-119	S	%Rec	10	12/19/2018 9:53:19 PM	42178			
EPA METHOD 8021B: VOLATILES						Analyst	: NSB			
Benzene	4.5	0.24		mg/Kg	10	12/19/2018 9:53:19 PM	42178			
Toluene	36	0.47		mg/Kg	10	12/19/2018 9:53:19 PM	42178			
Ethylbenzene	8.3	0.47		mg/Kg	10	12/19/2018 9:53:19 PM	42178			
Xylenes, Total	16	0.94		mg/Kg	10	12/19/2018 9:53:19 PM	42178			
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	10	12/19/2018 9:53:19 PM	42178			

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

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

- В Analyte detected in the associated Method Blank
- Value above quantitation range Е
- Analyte detected below quantitation limits Page 1 of 9 J
- Sample pH Not In Range Р
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Date Reported: 12/26/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** L2 **Project:** Black River 15 10 3H Collection Date: 12/15/2018 9:15:00 AM Lab ID: 1812995-002 Matrix: SOIL Received Date: 12/18/2018 8:50:00 AM Result **POL Oual Units DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 83 30 mg/Kg 20 12/21/2018 4:04:05 AM 42247 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm **Diesel Range Organics (DRO)** 770 98 mg/Kg 10 12/21/2018 1:44:41 PM 42209 Motor Oil Range Organics (MRO) 1200 490 12/21/2018 1:44:41 PM 42209 mg/Kg 10 Surr: DNOP 12/21/2018 1:44:41 PM 42209 0 50.6-138 S %Rec 10 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 12/20/2018 9:04:22 PM 42178 Gasoline Range Organics (GRO) 77 5 24 mg/Kg Surr: BFB 144 73.8-119 S %Rec 5 12/20/2018 9:04:22 PM 42178 **EPA METHOD 8021B: VOLATILES** Analyst: NSB 0.43 Benzene 12/20/2018 9:04:22 PM 42178 0.12 mg/Kg 5 Toluene 6.2 0.24 mg/Kg 5 12/20/2018 9:04:22 PM 42178 Ethylbenzene 2.7 0.24 mg/Kg 5 12/20/2018 9:04:22 PM 42178 Xylenes, Total 6.1 0.49 mg/Kg 5 12/20/2018 9:04:22 PM 42178 Surr: 4-Bromofluorobenzene 106 80-120 5 12/20/2018 9:04:22 PM 42178 %Rec

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Ar
	D	Sample Diluted Due to Matrix	Е	Va
	Н	Holding times for preparation or analysis exceeded	J	Ar
	ND	Not Detected at the Reporting Limit	Р	Sa
	PQL	Practical Quanitative Limit	RL	Re
	S	% Recovery outside of range due to dilution or matrix	W	Sa

- nalyte detected in the associated Method Blank
- alue above quantitation range
- nalyte detected below quantitation limits Page 2 of 9
- ample pH Not In Range
- eporting Detection Limit
- ample container temperature is out of limit as specified

Date Reported: 12/26/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Souder, Miller & Associates	s Client Sample ID: L3								
Project:	Black River 15 10 3H		(Collect	ion Dat	e: 12/	/15/2018 9:20:00 AM			
Lab ID:	1812995-003	Matrix: SOIL	Matrix: SOIL Received Date: 12/18/2018 8:50:00 AM							
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch		
EPA MET	HOD 300.0: ANIONS						Analys	st: MRA		
Chloride		ND	30		mg/Kg	20	12/21/2018 4:41:19 A	M 42247		
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analys	st: Irm		
Diesel Ra	ange Organics (DRO)	1200	94		mg/Kg	10	12/21/2018 2:28:53 PI	M 42209		
Motor Oil Range Organics (MRO)		1100	470		mg/Kg	10	12/21/2018 2:28:53 PI	M 42209		
Surr: D	DNOP	0	50.6-138	S	%Rec	10	12/21/2018 2:28:53 PI	M 42209		
EPA MET	HOD 8015D: GASOLINE RANG	E					Analys	st: NSB		
Gasoline	Range Organics (GRO)	100	48		mg/Kg	10	12/19/2018 11:50:26 F	PM 42186		
Surr: E	3FB	117	73.8-119		%Rec	10	12/19/2018 11:50:26 F	PM 42186		
EPA MET	HOD 8021B: VOLATILES						Analys	st: NSB		
Benzene		0.77	0.24		mg/Kg	10	12/19/2018 11:50:26 F	PM 42186		
Toluene		9.5	0.48		mg/Kg	10	12/19/2018 11:50:26 F	PM 42186		
Ethylben	zene	3.6	0.48		mg/Kg	10	12/19/2018 11:50:26 F	PM 42186		
Xylenes,	Total	7.8	0.97		mg/Kg	10	12/19/2018 11:50:26 F	PM 42186		
Surr: 4	l-Bromofluorobenzene	100	80-120		%Rec	10	12/19/2018 11:50:26 F	PM 42186		

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

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- * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix

Qualifiers:

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 12/26/2018

12/20/2018 9:27:49 PM 42186

CLIENT: S	Souder Miller & Associates		Cl	ient Sø	ample II) :14		
Project:	Black River 15 10 3H		<u>.</u>	⁷ ollect	ion Dat	• 12	/15/2018 9·25·00 AM	
Lab ID:	1812995-004	Matrix: SOIL		Receiv	ved Dat	e: 12/	/18/2018 8:50:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METH	IOD 300.0: ANIONS						Analyst	MRA
Chloride		ND	30		mg/Kg	20	12/21/2018 4:53:44 AM	42247
EPA METH	IOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	Irm
Diesel Rar	nge Organics (DRO)	8800	97		mg/Kg	10	12/21/2018 11:07:35 AM	/ 42209
Motor Oil F	Range Organics (MRO)	7600	490		mg/Kg	10	12/21/2018 11:07:35 AM	/ 42209
Surr: DN	NOP	0	50.6-138	S	%Rec	10	12/21/2018 11:07:35 AM	/ 42209
EPA METH	IOD 8015D: GASOLINE RANGI	E					Analyst	NSB
Gasoline F	Range Organics (GRO)	51	9.9		mg/Kg	2	12/20/2018 9:27:49 PM	42186
Surr: BF	В	173	73.8-119	S	%Rec	2	12/20/2018 9:27:49 PM	42186
EPA METH	IOD 8021B: VOLATILES						Analyst	NSB
Benzene		0.23	0.049		mg/Kg	2	12/20/2018 9:27:49 PM	42186
Toluene		3.8	0.099		mg/Kg	2	12/20/2018 9:27:49 PM	42186
Ethylbenze	ene	1.8	0.099		mg/Kg	2	12/20/2018 9:27:49 PM	42186
Xylenes, T	otal	4.0	0.20		mg/Kg	2	12/20/2018 9:27:49 PM	42186

108

80-120

%Rec

2

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

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

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 9 J
- Sample pH Not In Range Р
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

WO#:	1812995

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26-Dec-18

Client: Project:	Soude Black	r, Miller & Associat River 15 10 3H	es						
Sample ID	MB-42247	SampType: m	blk	Test	Code: EPA Method	300.0: Anions	5		
Client ID:	PBS	Batch ID: 42	2247	R	unNo: 56495				
Prep Date:	12/20/2018	Analysis Date: 1	2/21/2018	S	eqNo: 1890415	Units: mg/Kg	9		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.5							
Sample ID	LCS-42247	SampType: Ic	s	Test	Code: EPA Method	300.0: Anions	i		
Client ID:	LCSS	Batch ID: 42	2247	R	unNo: 56495				
Prep Date:	12/20/2018	Analysis Date: 1	2/21/2018	S	eqNo: 1890416	Units: mg/Kg			
Analyte		Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.5	15.00	0	97.5 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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

12995

26-Dec-18

Client:	Souder,	Miller & A	ssociate	es								
Project:	Black R	iver 15 10 3	3H									
Sample ID	MB-42209	SampT	ype: M	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID:	PBS	Batch	h ID: 42	209	F	RunNo: 56431						
Prep Date:	12/19/2018	Analysis D	Date: 12	2/20/2018	S	SeqNo: 1	890230	Units: mg/ #	ίg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (Organics (DRO)	ND	10									
Motor Oil Rang	e Organics (MRO)	ND	50									
Surr: DNOP		12		10.00		118	50.6	138				
Sample ID	LCS-42209	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID:	LCSS	Batch	h ID: 42	209	F	RunNo: 5	6431					
Prep Date:	Prep Date: 12/19/2018 Analysis Date: 12/20/2018						SeqNo: 1890231 Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (Organics (DRO)	60	10	50.00	0	119	70	130				
Surr: DNOP		5.4		5.000		109	50.6	138				
Sample ID	LCS-42209	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID:	LCSS	Batch	h ID: 42	209	F	RunNo: 5	6431					
Prep Date:	12/19/2018	Analysis D	Date: 12	2/21/2018	S	SeqNo: 1	890696	Units: mg/k	٤g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (Organics (DRO)	58	10	50.00	0	116	70	130				
Surr: DNOP		5.9		5.000		118	50.6	138				

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 6 of 9

WO#:	1812995
	26-Dec-18

Client: Project:	Souder, N Black Riv	Ailler & A	ssociate	es									
	Didek Ki	ver 15 10 :	, , , , , , , , , , , , , , , , , , ,										
Sample ID	MB-42178	SampT	ype: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	PBS	Batch	h ID: 42	178	RunNo: 56473								
Prep Date:	12/18/2018	Analysis D	Date: 12	2/19/2018	S	SeqNo: 1	888352	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Surr: BFB	Organics (GRO)	ND 950	5.0	1000		94.7	73.8	119					
Sample ID	LCS-42178	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e			
Client ID:	LCSS	Batch	h ID: 42	178	F	RunNo: 5	6473						
Prep Date:	12/18/2018	Analysis D	Date: 12	2/19/2018	S	SeqNo: 1	888353	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range	Organics (GRO)	24	5.0	25.00	0	97.8	80.1	123					
Surr: BFB		1000		1000		101	73.8	119					
Sample ID	MB-42186	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e			
Client ID:	PBS	Batch	h ID: 42	186	F	RunNo: 5	6473						
Prep Date:	12/18/2018	Analysis D	Date: 12	2/19/2018	S	SeqNo: 1	888375	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Surr: BFB	Organics (GRO)	ND 920	5.0	1000		92.0	73.8	119					
Sample ID	LCS-42186	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e			
Client ID:	LCSS	Batch	h ID: 42	186	F	RunNo: 5	6473						
Prep Date:	12/18/2018	Analysis D	Date: 12	2/19/2018	S	SeqNo: 1	888376	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range	Organics (GRO)	25	5.0	25.00	0	98.8	80.1	123					
Surr: BFB		1100		1000		107	73.8	119					
Sample ID	MB-42210	SampT	ype: ME	3LK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	PBS	Batch	h ID: 42	210	F	RunNo: 5	6489						
Prep Date:	12/19/2018	Analysis D	Date: 12	2/20/2018	S	SeqNo: 1	889749	Units: %Rec	;				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		880		1000		87.8	73.8	119					
Sample ID	LCS-42210	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e			
Client ID:	LCSS	Batcl	h ID: 42	210	F	RunNo: 5	6489		5				
Prep Date:	12/19/2018	Analysis D	Date: 12	2/20/2018	S	SeqNo: 1	889750	Units: %Rec	;				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		1000		1000	-	104	73.8	119					

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- Practical Quanitative Limit PQL
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank

Е Value above quantitation range

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified W

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Hall Environmental Analysis Laboratory, Inc.	QC SU	MMARY REPORT
	Hall Env	vironmental Analysis Laboratory, Inc.
	Client:	Souder, Miller & Associates

Black River 15 10 3H

Sample ID MB-42178	BLK	TestCode: EPA Method 8021B: Volatiles												
Client ID: PBS	Client ID: PBS Batch ID: 42178					RunNo: 56473								
Prep Date: 12/18/2018	Analysis [Date: 12	2/19/2018	S	SeqNo: 1	888393	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.025												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120							
Sample ID LCS-42178	Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles						
Client ID: LCSS	Batc	h ID: 42	178	F	RunNo: 5	6473								
Prep Date: 12/18/2018	Analysis [Date: 12	2/19/2018	Ş	SeqNo: 1	888394	Units: mg/l	٢g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.93	0.025	1.000	0	93.1	80	120							
Toluene	0.98	0.050	1.000	0	98.1	80	120							
Ethylbenzene	1.0	0.050	1.000	0	99.7	80	120							
Xylenes, Total	3.0	0.10	3.000	0	100	80	120							
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120							
	MB-42186 SampType: MBLK													
Sample ID MB-42186	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles						
Sample ID MB-42186 Client ID: PBS	Samp ⁻ Batc	Гуре: МЕ h ID: 42	3LK 186	Tes	tCode: El RunNo: 5	PA Method 6473	8021B: Vola	tiles						
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018	Samp ⁻ Batc Analysis I	Гуре: Ме h ID: 42 Date: 12	3LK 186 2/19/2018	Tes F	tCode: E RunNo: 5 SeqNo: 1	PA Method 6473 888413	8021B: Vola Units: mg/ł	tiles (g						
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte	Samp Batc Analysis I Result	Гуре: МЕ h ID: 42 Date: 12 PQL	3LK 186 2/19/2018 SPK value	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit	8021B: Vola Units: mg/ł HighLimit	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene	Samp Batc Analysis [Result ND	Type: ME h ID: 42 Date: 12 PQL 0.025	3LK 186 2/19/2018 SPK value	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit	8021B: Vola Units: mg/ł HighLimit	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene	Samp Batc Analysis I Result ND ND	Type: ME h ID: 42 Date: 12 PQL 0.025 0.050	3LK 186 2/19/2018 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit	8021B: Vola Units: mg/I HighLimit	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene	Samp Batc Analysis I Result ND ND ND	Гуре: МЕ h ID: 42 Date: 12 PQL 0.025 0.050 0.050	3LK 186 2/19/2018 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit	8021B: Vola Units: mg/ł HighLimit	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batc Analysis I Result ND ND ND ND	Type: ME h ID: 42 Date: 12 PQL 0.025 0.050 0.050 0.10	3LK 186 2/19/2018 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit	8021B: Vola Units: mg/ł HighLimit	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Samp Batc Analysis I Result ND ND ND ND 0.95	Гуре: МЕ h ID: 42 Date: 12 0.025 0.050 0.050 0.10	3LK 186 2/19/2018 SPK value 1.000	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4	PA Method 6473 888413 LowLimit 80	8021B: Vola Units: mg/l HighLimit 120	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186	Samp Batc Analysis I Result ND ND ND ND 0.95	Гуре: МЕ h ID: 42 Date: 12 PQL 0.025 0.050 0.050 0.10	3LK 186 2/19/2018 SPK value 1.000	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4	PA Method 6473 888413 LowLimit 80 PA Method	8021B: Vola Units: mg/ł HighLimit 120 8021B: Vola	tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc	Гуре: МЕ h ID: 42 Date: 12 0.025 0.050 0.050 0.10 Гуре: LC h ID: 42	3LK 186 2/19/2018 SPK value 1.000 S 186	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4 tCode: E RunNo: 5	PA Method 6473 888413 LowLimit 80 PA Method 6473	8021B: Vola Units: mg/l HighLimit 120 8021B: Vola	tiles ⁽ g %RPD tiles	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS Prep Date: 12/18/2018	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc Analysis I	Гуре: МЕ h ID: 42 Date: 12 0.025 0.050 0.050 0.10 Гуре: LC h ID: 42 Date: 12	3LK 186 2/19/2018 SPK value 1.000 S 186 2/19/2018	Tes F SPK Ref Val	tCode: El RunNo: 5 SeqNo: 1 %REC 95.4 tCode: El RunNo: 5 SeqNo: 1	PA Method 6473 888413 LowLimit 80 PA Method 6473 888414	8021B: Vola Units: mg/ł HighLimit 120 8021B: Vola Units: mg/ł	tiles <g %RPD tiles <g< td=""><td>RPDLimit</td><td>Qual</td></g<></g 	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS Prep Date: 12/18/2018 Analyte	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc Analysis I Result	Fype: ME h ID: 42 Date: 12 0.025 0.050 0.050 0.10 Fype: LC h ID: 42 Date: 12 PQL	3LK 186 2/19/2018 SPK value 1.000 5 186 2/19/2018 SPK value	Tes F SPK Ref Val Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4 tCode: E RunNo: 5 SeqNo: 1 %REC	PA Method 6473 888413 LowLimit 80 PA Method 6473 888414 LowLimit	8021B: Vola Units: mg/ł HighLimit 120 8021B: Vola Units: mg/ł HighLimit	tiles (g %RPD tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS Prep Date: 12/18/2018 Analyte Benzene	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc Analysis I Result 0.97	Fype: ME h ID: 42 Date: 12 0.025 0.050 0.050 0.10 Fype: LC h ID: 42 Date: 12 PQL 0.025	BLK 186 2/19/2018 SPK value 1.000 SS 186 2/19/2018 SPK value 1.000	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4 ttCode: E RunNo: 5 SeqNo: 1 %REC 96.6	PA Method 6473 888413 LowLimit 80 PA Method 6473 888414 LowLimit 80	8021B: Vola Units: mg/k HighLimit 120 8021B: Vola Units: mg/k HighLimit 120	tiles (g %RPD tiles (g %RPD	RPDLimit	Qual				
Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS Prep Date: 12/18/2018 Analyte Benzene Toluene	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc Analysis I Result 0.97 1.0	Type: ME h ID: 42 Date: 12 PQL 0.025 0.050 0.050 0.10 Type: LC h ID: 42 Date: 12 PQL 0.025 0.050	3LK 186 2/19/2018 SPK value 1.000 3S 186 2/19/2018 SPK value 1.000 1.000	Tes F SPK Ref Val Tes SPK Ref Val 0 0	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4 ttCode: E RunNo: 5 SeqNo: 1 %REC 96.6 102	PA Method 6473 888413 LowLimit 80 6473 888414 LowLimit 80 80	8021B: Vola Units: mg/ł HighLimit 120 8021B: Vola Units: mg/ł HighLimit 120 120	tiles <g %RPD tiles <g %RPD</g </g 	RPDLimit	Qual				
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Sample ID MB-42186 Client ID: PBS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID LCS-42186 Client ID: LCSS Prep Date: 12/18/2018 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batc Analysis I Result ND ND ND 0.95 Samp Batc Analysis I Result 0.97 1.0 1.0 3.1	Fype: ME h ID: 42 Date: 12 0.025 0.050 0.050 0.10 Fype: LC h ID: 42 Date: 12 PQL 0.025 0.050 0.050 0.050 0.10	3LK 186 2/19/2018 SPK value 1.000 SS 186 2/19/2018 SPK value 1.000 1.000 1.000 3.000	Tes F SPK Ref Val	tCode: E RunNo: 5 SeqNo: 1 %REC 95.4 tCode: E RunNo: 5 SeqNo: 1 %REC 96.6 102 104 104	PA Method 6473 888413 LowLimit 80 6473 888414 LowLimit 80 80 80 80 80	8021B: Vola Units: mg/l HighLimit 120 8021B: Vola Units: mg/l HighLimit 120 120 120 120	tiles <g %RPD tiles <g %RPD</g </g 	RPDLimit	Qual				

Qualifiers:

Project:

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

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WO#: 1812995

Hall Er	ivironmenta	al Anal	ysis L	Laborat	ory, Inc.						26-Dec-18
Client: Project:	Souder, N Black Riv	Ailler & A ver 15 10 1	ssociate 3H	es							
Sample ID	1812995-004AMS	Samp	Туре: М:	6	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	L4	Batc	h ID: 42	186	F	RunNo: 5	6489				
Prep Date:	12/18/2018	Analysis [Date: 12	2/20/2018	S	SeqNo: 1	889776	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.048	0.9579	0.2328	93.7	63.9	127			
Toluene		5.7	0.096	0.9579	3.779	204	69.9	131			S
Ethylbenzene		3.3	0.096	0.9579	1.818	156	71	132			S
Xylenes, Total		7.8	0.19	2.874	3.962	135	71.8	131			S
Surr: 4-Bron	nofluorobenzene	2.2		1.916		115	80	120			
Sample ID	1812995-004AMSI	Samp	Гуре: М \$	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	L4	Batc	h ID: 42	186	F	RunNo: 5	6489				
Prep Date:	12/18/2018	Analysis [Date: 12	2/20/2018	S	SeqNo: 1	889777	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.049	0.9833	0.2328	90.9	63.9	127	0.321	20	
Toluene		5.8	0.098	0.9833	3.779	204	69.9	131	0.898	20	S
Ethylbenzene		3.5	0.098	0.9833	1.818	168	71	132	4.58	20	S
Xylenes, Total		8.2	0.20	2.950	3.962	144	71.8	131	4.87	20	S
Surr: 4-Bron	nofluorobenzene	2.3		1.967		116	80	120	0	0	
Sample ID	MB-42210	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batc	h ID: 42	210	F	RunNo: 5	6489				
Prep Date:	12/19/2018	Analysis [Date: 12	2/20/2018	S	SeqNo: 1	889786	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	0.92		1.000		91.6	80	120			
Sample ID	LCS-42210	Samp	Гуре: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 42	210	F	RunNo: 5	6489				
Prep Date:	12/19/2018	Analysis [Date: 12	2/20/2018	S	SeqNo: 1	889787	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

QC SUMMARY REPORT

D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: **1812995**

Client Name: SMA-CARLSBAD Work Order Number: 1812995 RcptNo: Received By: Victoria Zellar 12/18/2018 8:50:00 AM Victoria & Juan Completed By: Jazzmine Burkhead 12/18/2018 10:07:26 AM Victoria & Juan Reviewed By: DAD 12/18/2018 10:07:26 AM Victoria & Juan Anal of Custody Main of Custody complete? Yes No Not Present . Is Chain of Custody complete? Yes Yes No Not Present . How was the sample delivered? Courier Courier No NA . Was an attempt made to cool the samples? Yes No NA NA . Was an attempt made to cool the samples? Yes No NA NA . Was an attempt made to cool the samples? Yes No NA NA . Was an attempt wolume for indicated test(s)? Yes No NA . Sufficient sample volume for indicated test(s)? Yes No No NA . Was preservative added to bottles? Yes No No NA . Was preservative added t	heck l
Received By: Victoria Zellar 12/18/2018 8:50:00 AM Victoria Gular Completed By: Jazzmine Burkhead 12/18/2018 10:07:26 AM Victoria Gular Reviewed By: DAD 12/18/2018 10:07:26 AM Victoria Gular Labeled by: DAD 12/18/2018 10:07:26 AM Victoria Gular Labeled by: DAD 12/18/2018 10:07:26 AM Labeled by: Development No No No Labeled by: Mathematical testion No No No Was an attempt made to cool the samples? Yes No No No	1
Completed By: Jazzmine Burkhead 12/18/2018 10:07:26 AM Reviewed By: DAD 12/18/18 Labeled by: Wather No No Labeled by: Wather No No Present Labeled by: Wather Yes No No Present Labeled by: Wather Yes Yes No No Present Labeled by: How was the sample delivered? Courier Courier No NA Log In . How was the sample delivered? Yes No NA NA . Were all samples received at a temperature of >0° C to 6.0°C Yes No NA NA . Were all samples received at a temperature of >0° C to 6.0°C Yes No NA NA . Sample(s) in proper container(s)? Yes No No NA NA . Sufficient sample volume for indicated test(s)? Yes No No NA No . Was preservative added to bottles? Yes No No No No No If of preserved bottles checked for pht: (c2 or Aduste checked	
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(Note discrepancies on chain of custody) (<2 or	v
Ale matrices correctly identified of chain of Custody? Yes Image: No Image: Imag	>12 unless
4. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.)	
(If no, notify customer for authorization.)	
<u>pecial Handling (if applicable)</u>	
D, was client notified of all discrepancies with this order? Yes No No No No NA	
Person Notified	
	1
Client Instructions:	
6. Additional remarks:	
7 Cooler Information	
Cooler No. Temp °C Condition Seal Intact Seal No. Seal Date: Signed Bir	

Chain-of-Custody Record	Turn-Around Time: 5 D	an turn			-					ŀ		
Client: SMA	□ Standard □ Rush	7								A Q	₋,≿	
	Project Name:	s 3H			v.halle	nviron	menta	l.com)		
Mailing Address:	12145-		4901 H	awkins I	- - -	Nbuqu	erque	, NM 87	7109			
	Project #:		Tel. 50	5-345-3	975	Fax	505-3	45-410	7			
Phone #:					An	alysis	Requ	est	,			
email or Fax#:	Project Manager:		() ()			*		(tu	_			<u> </u>
QA/QC Package:	Dustin Weya	v+	PCB's O / MR('s (802'	SMISC	5 00			iəsdA\tr				
Accreditation:	Sampler: C. R. Le C On Ice: V Yes	. No	амт \ 90 / D9 2808/s	or 827(¹⁷ 0N ¹	(A((Preser				
□ EDD (Type)	# of Coolers: [Side: (GF	310 910	etale) ()	-^C) WJ(
			TM XX 03108 D3108	dtəM) 8 vd s	M 8 A		mə2) (ofilo)				
Date Time Matrix Sample Name	Container Preservative Type and # Type	S 3 4 2 5	BTE: H9T 18081	EDB EDB	RCR	8560	0728	Total				
12/15/18 OPIO Soil LI	Ld ot	100 1	XX									
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Date: Time: Relinquished by: Backet	Received by Nia:	Date Time F	Remarks:	707								
Date: Time: Relinguoshed by:	Regulation Via: COUM	M bate Time I A I A I A Q A)								
If necessary, samples submitted to Hall Environmental may be subc	bcontracted to other accredited laboratori	es. This serves as notice of this p	ossibility. Any su	o-contracte	l data wil	be clear	y notate	d on the ar	halytical reg	port.		٦



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

January 11, 2019

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

RE: Black River State Com #3H

OrderNo.: 1901147

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/5/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 1/11/2019

1/9/2019 11:59:01 AM

1/9/2019 11:59:01 AM

1/9/2019 11:59:01 AM

42491

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CS 1 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:10:00 PM Lab ID: 1901147-001 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Result **PQL** Qual Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: CJS 1/10/2019 1:52:01 PM Chloride ND 30 mg/Kg 20 42529 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: Irm **Diesel Range Organics (DRO)** ND 9.7 mg/Kg 1 1/9/2019 4:17:24 PM 42496 Motor Oil Range Organics (MRO) ND 1/9/2019 4:17:24 PM 48 mg/Kg 1 42496 Surr: DNOP 92.8 50.6-138 %Rec 1 1/9/2019 4:17:24 PM 42496 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 1/9/2019 11:59:01 AM Gasoline Range Organics (GRO) ND 42491 4.9 mg/Kg 1 Surr: BFB 91.5 %Rec 1/9/2019 11:59:01 AM 73.8-119 1 42491 **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND 0.024 1/9/2019 11:59:01 AM Benzene mg/Kg 42491 1 Toluene ND 0.049 mg/Kg 1/9/2019 11:59:01 AM 42491 1

ND

ND

92.8

0.049

0.098

80-120

mg/Kg

mg/Kg

%Rec

1

1

1

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

Qualifiers:

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

42491

42491

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CS 2 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:12:00 PM Lab ID: 1901147-002 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Result **PQL** Qual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** 1/10/2019 2:04:26 PM Chloride ND 30 mg/Kg 20 42529 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: Irm **Diesel Range Organics (DRO)** ND 9.3 mg/Kg 1 1/9/2019 5:23:13 PM 42496 Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/9/2019 5:23:13 PM 42496 Surr: DNOP 95.1 50.6-138 %Rec 1 1/9/2019 5:23:13 PM 42496 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 1/9/2019 1:09:46 PM Gasoline Range Organics (GRO) ND 42491 4.8 mg/Kg 1 Surr: BFB 92.0 %Rec 1/9/2019 1:09:46 PM 42491 73.8-119 1 **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND 0.024 1/9/2019 1:09:46 PM Benzene mg/Kg 42491 1 Toluene ND 0.048 mg/Kg 1/9/2019 1:09:46 PM 42491 1 Ethylbenzene ND 0.048 mg/Kg 1/9/2019 1:09:46 PM 42491 1

ND

93.7

0.095

80-120

mg/Kg

%Rec

1

1

1/9/2019 1:09:46 PM

1/9/2019 1:09:46 PM

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

Qualifiers:

*

Xylenes, Total

Surr: 4-Bromofluorobenzene

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Value exceeds Maximum Contaminant Level.

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

42491

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CS 3 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:14:00 PM Lab ID: 1901147-003 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Result **PQL** Qual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** 1/10/2019 2:16:50 PM Chloride 110 30 mg/Kg 20 42529 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: Irm **Diesel Range Organics (DRO)** ND 9.5 mg/Kg 1 1/9/2019 5:45:11 PM 42496 Motor Oil Range Organics (MRO) ND 1/9/2019 5:45:11 PM 47 mg/Kg 1 42496 Surr: DNOP 90.8 50.6-138 %Rec 1 1/9/2019 5:45:11 PM 42496 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 1/9/2019 2:20:16 PM 42491 4.9 mg/Kg 1 Surr: BFB 88.7 %Rec 1/9/2019 2:20:16 PM 42491 73.8-119 1 **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND 0.024 1/9/2019 2:20:16 PM Benzene mg/Kg 42491 1 Toluene 42491

ND 0.049 mg/Kg 1/9/2019 2:20:16 PM 1 Ethylbenzene ND 0.049 mg/Kg 1/9/2019 2:20:16 PM 1 Xylenes, Total ND 0.098 mg/Kg 1 1/9/2019 2:20:16 PM Surr: 4-Bromofluorobenzene 90.6 80-120 %Rec 1 1/9/2019 2:20:16 PM

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1901147 Date Reported: 1/11/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID: CS 4 Project:** Black River State Com #3H Collection Date: 1/2/2019 4:16:00 PM Lab ID: 1901147-004 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Analyses Result **PQL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: CJS Chloride 1/10/2019 2:29:15 PM 31 30 mg/Kg 20 42529 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm **Diesel Range Organics (DRO)** 130 9.7 mg/Kg 1 1/9/2019 6:06:59 PM 42496 Motor Oil Range Organics (MRO) 87 49 mg/Kg 1 1/9/2019 6:06:59 PM 42496 Surr: DNOP 97.3 50.6-138 %Rec 1 1/9/2019 6:06:59 PM 42496

EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/9/2019 2:43:39 PM	42491
Surr: BFB	89.2	73.8-119	%Rec	1	1/9/2019 2:43:39 PM	42491
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	1/9/2019 2:43:39 PM	42491
Toluene	ND	0.050	mg/Kg	1	1/9/2019 2:43:39 PM	42491
Ethylbenzene	ND	0.050	mg/Kg	1	1/9/2019 2:43:39 PM	42491
Xylenes, Total	ND	0.099	mg/Kg	1	1/9/2019 2:43:39 PM	42491
Surr: 4-Bromofluorobenzene	90.6	80-120	%Rec	1	1/9/2019 2:43:39 PM	42491

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

42491

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42491

42491

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CSW 1 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:18:00 PM Lab ID: 1901147-005 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Result **PQL** Qual Units **DF** Date Analyzed Batch Analyses Analyst: CJS **EPA METHOD 300.0: ANIONS** Chloride 1/10/2019 3:06:28 PM ND 30 mg/Kg 20 42529 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: Irm **Diesel Range Organics (DRO)** ND 9.4 mg/Kg 1 1/9/2019 6:28:58 PM 42496 Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/9/2019 6:28:58 PM 42496 Surr: DNOP 90.3 50.6-138 %Rec 1 1/9/2019 6:28:58 PM 42496 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 1/9/2019 3:07:15 PM Gasoline Range Organics (GRO) ND 42491 4.7 mg/Kg 1 Surr: BFB 91.5 %Rec 1/9/2019 3:07:15 PM 42491 73.8-119 1 **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND Benzene 42491

1/9/2019 3:07:15 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1/9/2019 3:07:15 PM 1 Ethylbenzene ND 0.047 mg/Kg 1/9/2019 3:07:15 PM 1 Xylenes, Total ND 0.093 mg/Kg 1 1/9/2019 3:07:15 PM Surr: 4-Bromofluorobenzene 93.7 80-120 %Rec 1 1/9/2019 3:07:15 PM

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

Qualifiers:

*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Value exceeds Maximum Contaminant Level.

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** CSW 2 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:20:00 PM Lab ID: 1901147-006 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Analyses Result PQL Qual Units **DF** Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: CJS 4/40/0040 0 40 50 DM ~ ~

Chloride	ND	30	mg/Kg	20	1/10/2019 3:18:52 PM	42529
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	11	9.3	mg/Kg	1	1/9/2019 6:50:48 PM	42496
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/9/2019 6:50:48 PM	42496
Surr: DNOP	76.9	50.6-138	%Rec	1	1/9/2019 6:50:48 PM	42496
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	1/9/2019 3:30:43 PM	42491
Surr: BFB	88.5	73.8-119	%Rec	1	1/9/2019 3:30:43 PM	42491
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	1/9/2019 3:30:43 PM	42491
Toluene	ND	0.047	mg/Kg	1	1/9/2019 3:30:43 PM	42491
Ethylbenzene	ND	0.047	mg/Kg	1	1/9/2019 3:30:43 PM	42491
Xylenes, Total	ND	0.093	mg/Kg	1	1/9/2019 3:30:43 PM	42491
Surr: 4-Bromofluorobenzene	90.8	80-120	%Rec	1	1/9/2019 3:30:43 PM	42491

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

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Diluted Due to Maurix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CSW 3 **Project:** Black River State Com #3H Collection Date: 1/2/2019 4:22:00 PM Lab ID: 1901147-007 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Analyses Result **PQL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: CJS Chloride 1/10/2019 3:31:16 PM ND 30 mg/Kg 20 42529 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm **Diesel Range Organics (DRO)** 51 9.8 mg/Kg 1 1/9/2019 7:12:34 PM 42496 Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/9/2019 7:12:34 PM 42496 496 SB

Surr: DNOP	83.9	50.6-138	%Rec	1	1/9/2019 7:12:34 PM	42496
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	1/9/2019 5:27:59 PM	42491
Surr: BFB	90.1	73.8-119	%Rec	1	1/9/2019 5:27:59 PM	42491
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.023	mg/Kg	1	1/9/2019 5:27:59 PM	42491
Toluene	ND	0.046	mg/Kg	1	1/9/2019 5:27:59 PM	42491
Ethylbenzene	ND	0.046	mg/Kg	1	1/9/2019 5:27:59 PM	42491
Xylenes, Total	ND	0.092	mg/Kg	1	1/9/2019 5:27:59 PM	42491
Surr: 4-Bromofluorobenzene	91.5	80-120	%Rec	1	1/9/2019 5:27:59 PM	42491

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

Qualifiers:	
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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Date Reported: 1/11/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID: CSW 4 Project:** Black River State Com #3H Collection Date: 1/2/2019 4:24:00 PM Lab ID: 1901147-008 Matrix: SOIL Received Date: 1/5/2019 11:50:00 AM Result **PQL** Qual Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: CJS Chloride 1/10/2019 4:08:30 PM ND 30 mg/Kg 20 42529 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: Irm **Diesel Range Organics (DRO)** 430 9.8 mg/Kg 1 1/9/2019 7:34:15 PM 42496 Motor Oil Range Organics (MRO) 930 49 mg/Kg 1 1/9/2019 7:34:15 PM 42496 Surr: DNOP 99.2 50.6-138 %Rec 1 1/9/2019 7:34:15 PM 42496 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 1/9/2019 5:51:25 PM Gasoline Range Organics (GRO) ND 4.7 mg/Kg 42491 1 Curr DED 1/0/2010 5.51.25 DM 104 72 9 110 % Doo 42491 SВ

	104	75.0-115	/01/00		1/9/2019 0.01.201 10	42431
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	1/9/2019 5:51:25 PM	42491
Toluene	ND	0.047	mg/Kg	1	1/9/2019 5:51:25 PM	42491
Ethylbenzene	ND	0.047	mg/Kg	1	1/9/2019 5:51:25 PM	42491
Xylenes, Total	ND	0.095	mg/Kg	1	1/9/2019 5:51:25 PM	42491
Surr: 4-Bromofluorobenzene	91.2	80-120	%Rec	1	1/9/2019 5:51:25 PM	42491

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

Qualifiers:

*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client: Project:	Souder Black	r, Miller & Assoc River State Com	ciates #3H							
Sample ID	MB-42529	12529 SampType: MBLK TestCode: EPA Method 300.0: Anions								
Client ID:	PBS	Batch ID:	42529	F	RunNo: 5692	4				
Prep Date:	1/10/2019	Analysis Date:	1/10/2019	S	SeqNo: 1904	618	Units: mg/K	g		
Analyte		Result PO	QL SPK value	SPK Ref Val	%REC Lo	owLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5							
Sample ID	LCS-42529	SampType	LCS	Tes	tCode: EPA I	Method	300.0: Anion	s		
Client ID:	LCSS	Batch ID:	42529	F	RunNo: 5692	4				
Prep Date:	1/10/2019	Analysis Date:	1/10/2019	S	SeqNo: 1904	619	Units: mg/K	g		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC Lo	owLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5 15.00	0	94.8	90	110			

Qualifiers:

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

WO#: **1901147** *11-Jan-19*

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Client: Souder	r, Miller & A	ssociate	es T							
Floject: Dlack	Kivel State C	.0111 # 31	1							
Sample ID MB-42496	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	n ID: 42	496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Analysis D	ate: 1	9/2019	S	SeqNo: 1	902954	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	50.6	138			
Sample ID LCS-42496	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	n ID: 42	496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Analysis D	ate: 1	9/2019	5	SeqNo: 1	902975	Units: mg/ł	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	70	130			
Surr: DNOP	4.6		5.000		91.3	50.6	138			
Sample ID 1901147-001AM	MS SampT	ype: M	6	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: CS 1	Batch	n ID: 42	496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Analysis D	ate: 1	9/2019	S	SeqNo: 1	903208	Units: mg/ł	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.4	47.17	0	92.1	53.5	126			
Surr: DNOP	4.2		4.717		88.1	50.6	138			
Sample ID 1901147-001A	MSD SampT	ype: M	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: CS 1	Batch	n ID: 42	496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Analysis D	ate: 1	9/2019	S	SeqNo: 1	903209	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.56	0	95.1	53.5	126	10.0	21.7	
Surr: DNOP	4.5		5.056		88.8	50.6	138	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 10 of 14

Sample IDMB-42491SampType:MBLKTestCode:EPA Method 8015D:Gasoline RangeClient ID:PBSBatch ID:42491RunNo:56872Prep Date:1/8/2019Analysis Date:1/9/2019SeqNo:1903162Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualGasoline Range Organics (GRO)ND5.0	
Client ID: PBS Batch ID: 42491 RunNo: 56872 Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903162 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) ND 5.0	
Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903162 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val % REC LowLimit HighLimit % RPD RPDLimit Qual Gasoline Range Organics (GRO) ND 5.0	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) ND 5.0 980 1000 98.0 73.8 119 119 Sample ID LCS-42491 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 42491 RunNo: 56872	
Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 980 1000 98.0 73.8 119 Sample ID LCS-42491 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 42491 RunNo: 56872	
Sample ID LCS-42491 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 42491 RunNo: 56872	
Client ID: LCSS Batch ID: 42491 RunNo: 56872	
Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903163 Units: mg/Kg	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Gasoline Range Organics (GRO) 26 5.0 25.00 0 103 80.1 123	
Surr: BFB 1100 1000 110 73.8 119	
Sample ID 1901147-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range	
Client ID: CS 1 Batch ID: 42491 RunNo: 56872	
Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903165 Units: mg/Kg	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Gasoline Range Organics (GRO) 27 4.9 24.63 0 110 77.8 128	
Surr: BFB 1000 985.2 105 73.8 119	
Sample ID 1901147-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range	
Client ID: CS 1 Batch ID: 42491 RunNo: 56872	
Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903166 Units: mg/Kg	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Gasoline Range Organics (GRO) 27 4.8 24.22 0 110 77.8 128 1.44 20	
Surr: BFB 1000 969.0 108 73.8 119 0 0	
Sample ID MB-42518 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range	
Client ID: PBS Batch ID: 42518 RunNo: 56885	
Prep Date: 1/9/2019 Analysis Date: 1/10/2019 SeqNo: 1904141 Units: %Rec	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	
Surr: BFB 970 1000 97.3 73.8 119	
Sample ID LCS-42518 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range	
Client ID: LCSS Batch ID: 42518 RunNo: 56885	
Prep Date: 1/9/2019 Analysis Date: 1/10/2019 SeqNo: 1904142 Units: %Rec	
Analyte Result POI SPK value SPK Ref Val %REC LowI imit HighLimit %RPD RPDI imit Oual	
Surr: BFB 1100 1000 110 73.8 119	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: **1901147** *11-Jan-19*

Batch ID: 42514

Analysis Date: 1/10/2019

PQL

1000

Result

1100

Client: Project:	Soude Black	er, Miller & Ass a River State Co	sociate m #3H	es H							
Sample ID	MB-42514	SampTy	pe: M	BLK	Tes	tCode: El	PA Method	8015D: Gasc	line Rang	e	
Client ID:	PBS	Batch I	D: 42	514	R	anNo: 5	6885				
Prep Date:	1/9/2019	Analysis Da	te: 1/	10/2019	S	SeqNo: 1	904148	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		940		1000		94.1	73.8	119			
Sample ID	LCS-42514	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	

RunNo: 56885

110

SPK value SPK Ref Val %REC LowLimit

SeqNo: 1904149

Units: %Rec

119

%RPD

RPDLimit

HighLimit

73.8

Qualifiers:

Client ID: LCSS

1/9/2019

Prep Date:

Surr: BFB

Analyte

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit PQL
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
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- Р Sample pH Not In Range
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- W Sample container temperature is out of limit as specified

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WO#: 1901147

Qual

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc

WO#:	1901147
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11-Jan-19

Client: Project:	Souder, M Black Riv	Iiller & A ver State C	ssociate Com #3F	es H							
Sample ID	MB-42491	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batch	n ID: 424	491	R	unNo: 5	6872				
Prep Date:	1/8/2019	Analysis D	Date: 1/	9/2019	S	eqNo: 1	903187	Units: mg/k	٢g		
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-Brom	nofluorobenzene	1.0		1.000		99.9	80	120			
Sample ID	LCS-42491	SampT	ype: LC	S	Test	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	n ID: 424	491	R	unNo: 5	6872				
Prep Date:	1/8/2019	Analysis D	Date: 1/	9/2019	S	eqNo: 1	903188	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	92.1	80	120			
Toluene		0.96	0.050	1.000	0	96.2	80	120			
Ethylbenzene		0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total		2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Brom	nofluorobenzene	1.0		1.000		101	80	120			
Sample ID	1901147-002AMS	SampT	- уре: МS	6	Test	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	CS 2	Batch	n ID: 424	491	R	unNo: 5	6872				
Prep Date:	1/8/2019	Analysis D	Date: 1/	9/2019	S	eqNo: 1	903191	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.024	0.9560	0	94.8	63.9	127			
Toluene		0.95	0.048	0.9560	0.01018	98.8	69.9	131			
Ethylbenzene		0.96	0.048	0.9560	0	101	71	132			
Xylenes, Total		2.9	0.096	2.868	0.02740	101	71.8	131			
Surr: 4-Brom	nofluorobenzene	0.88		0.9560		92.0	80	120			
Sample ID	1901147-002AMSE) SampT	уре: МS	SD	Test	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	CS 2	Batch	n ID: 424	491	R	unNo: 5	6872				
Prep Date:	1/8/2019	Analysis D	Date: 1/	9/2019	S	eqNo: 1	903192	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.86	0.024	0.9524	0	90.6	63.9	127	4.91	20	
Toluene		0.92	0.048	0.9524	0.01018	95.7	69.9	131	3.48	20	
Ethylbenzene		0.93	0.048	0.9524	0	98.2	71	132	2.74	20	
Xylenes, Total		2.8	0.095	2.857	0.02740	98.4	71.8	131	2.81	20	
Surr: 4-Brom	nofluorobenzene	0.90		0.9524		94.8	80	120	0	0	

Qualifiers:

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- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client:	Souder	Miller & As	sociate	es							
Project:	Black F	River State Co	om #31	H							
Sample ID	MB-42518	SampTy	/pe: M I	BLK	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	ID: 42	518	F	unNo: 5	56885				
Prep Date:	1/9/2019	Analysis Da	ate: 1	/10/2019	S	SeqNo: 1	904170	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	0.99		1.000		99.4	80	120			
Sample ID	LCS-42518	SampTy	/pe: LC	cs	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batch	ID: 42	518	F	RunNo: 5	56885				
Prep Date:	1/9/2019	Analysis Da	ate: 1	/10/2019	S	SeqNo: 1	904171	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.0		1.000		102	80	120			
Sample ID	MB-42514	SampTy	/pe: M I	BLK	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	ID: 42	2514	F	RunNo: 5	56885				
Prep Date:	1/9/2019	Analysis Da	ate: 1	/10/2019	S	SeqNo: 1	904177	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	0.96		1.000		95.8	80	120			
Sample ID	LCS-42514	SampTy	/pe: LC	S	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batch	ID: 42	514	F	unNo: 5	56885				
Prep Date:	1/9/2019	Analysis Da	ate: 1	/10/2019	S	SeqNo: 1	904178	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	0.96		1.000		96.0	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
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N	HALL ENVIR ANAL LABOI	ONMENT YSIS RATORY	AL		Hall Enviro TEL: 505-: Website	onmental Ar Albuqi 345-3975 F; : www.halle	ialysis 4901 . ierque 1X: 50 nviror	Laborator Hawkins N , NM 8716 05-345-410 mental.com	ry VE 09 17 m	Sar	nple Log-In Check Lis	t
Clien	t Name:	SMA-CAR	SBAD	w	ork Order	Number: 1	9011	47			RcptNo: 1	
Recei Comp	ived By: pleted By:	Anne Tho Erin Mele VVZ	rne ndrez 117 1 10	1/5/ 1/7/2	2019 11:50 2019 9:23:	0:00 AM 10 AM			Ann.	. K.		
LI	B: D	AD V-	2/19									
Chai	n of Cus	tody	1/1)									
1. Is	Chain of Cu	ustody comp	lete?			1	es E		No		Not Present	
2. Ho	w was the	sample deliv	ered?			Q	ourie	t.				
Log	In											
3. Wa	as an attem	pt made to a	ool the samp	oles?		Y	es 🖌	1	No		NA 🗌	
4. We	re all samp	les received	at a tempera	ature of >0°	°C to 6.0°C	; ү	es 占		No			
5. Sa	mple(s) in p	proper conta	iner(s)?			Y	es	2	No			
6. Suf	ficient sam	ple volume f	or indicated t	est(s)?		Y	es 🔽]	No			
7. Are	samples (e	except VOA	and ONG) pr	operly pres	erved?	Y	es 🔽]	No			
8. Wa	s preservat	ive added to	bottles?			Y	es 🗆]	No		NA 🗌	
9. vo	A vials have	e zero heads	space?			Y	es []	No		No VOA Vials 🗹	
10. We	ere any sam	nple containe	ers received t	oroken?		Y	es []	No		# of preserved	
11.Doe (No	es paperwo te discrepa	rk match bol incies on cha	tle labels?	n		Y	es 🗹]	No		for pH. (<2 or>12 unless not	ed)
2. Are	matrices c	orrectly iden	tified on Cha	in of Custoo	iy?	Y	as 🗸]	No		Adjusted?	
3, Is it	clear what	analyses we	ere requested	1?		Y	es 🔽]	No			
4. Wei (If n	re all holdir o, notify cu	ng times able istomer for a	to be met? uthorization.))		Y	es 🗹]	No		Checked by: DAD 1/7/1	9
Specia	al Handli	ing (if app	licable)									
15. Wa	is client no	tified of all di	screpancies	with this or	ler?	Y	es [No		NA 🔽	
	Person	Notified:				Date:						
	By Who	m:				/ia: 🗍	eMail	Phor	ne 🗆	Fax	In Person	
	Regardi	ng:									and the second se	
	Client In	structions:								-		
16. Ad	ditional rer	narks:										
17. <u>Co</u>	Cooler Inform	Temp °C	Condition	Seal Inta	act Seal I	No Sea	Date	S	aned	Bv	1	
1		1.9	Good	Yes		000	- Drane	54		-1		

Chain	-of-C	ustody Record	Turn-Aroun	d Time:			1	10							
Client:	PINS	- Carlsbad	Standar	d D'Rus	h S dave				H		EN	5	RON	MENT	LAL
			Project Nan	le:					AN	A	X	S	LABO	RATO	ORY
Mailing Address	10		RIver	Quies C	Lolo 1 #31	-1	007		M .	w.hal	envir	onme	ntal.com		
			Project #:		O 4 MO + MOLO	-	490 Tol	FOF	VKINS	NE -	Albu	duerc	ue, NM 8	7109	
Phone #:			_						0-040	V.P	51 Jalve	DC X	0-345-410	1	
email or Fax#:			Project Man	ager:		(((-	-		*		()		
QA/QC Package:						120	лвс	S.S	S		os '	_	tnes		
Standard		Level 4 (Full Validation)	AU	stim 1	Neurant	8) s	1/0	HCF	WIS		b04	_	dA\1		
Accreditation:	D Az C	ompliance r	Sampler: (WAN A.	Acosta	amt	NDR	7808	8520		^{'2} ON	(uəsəı		
C EDD (Type)			# of Coolers.	× 100		/ 38	วยอ	/Sep	0 0	sla	' ⁸ C	AO1	9) n		
			Cooler Temp	D(including CF)	3-65-04-1,9	MTE	12D(oute	1881	təM	N'J	(HO	liforn		
Date Time	Matrix	Sample Name	Container Type and #	Preservative Type	IQ DEAL No.	\X3T8	08:H91	M) 80=	(d sHAC	8 AADS	8 'H C	S) 022	oO Isto		
1/2/12/12/1	Soil	CSI	20%		- 0VI	×	X		1	4	22	8	L		
1/2/18/10/0	-	152	/		-002	. 7-	12	-		ŕ		-			
Mar 8121	\neg	(53	~		-003	X	×	-		ŕ	27	_			
1/2/18/12/10	-	(54	-		-00H	×	2			ŕ	17	-			
1/2/18/10/2	1	(264)1	_		-005	×	X				2	-			
1201 81121	-	CSWZ			-006	×	×			ŕ	2	-			
1/0/2/12/1	-	C SW3			- 007	×	×			-	2				
ilelis Vory	7	cswy	4		-008	×	2			-	2				
P117 10000							_								
							-	-		-	-				
		~					-	-		-	-	_		+	
1-3-19 8:05	Relinquish	enthal dele-	Receivedby	via:	Date Time	Rema	arks:	-	4		- <				
ate: Time: F	Relingen	ind be	Rebeived by	ing.	Matter Time 2			96	NC N	8	2	-			
I I HOUSEBRY, E	amples sub	mitted to Hell Environmental may be subc	contracted to other ac	credited laboratories	s. This serves as notice of this	possibil	IN. Any	sub-cor	teacted	faith and	he doe	- And		di stant mente	