May 21, 2019

#5E27961-BG11

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

SUBJECT: Remediation Closure Report for the Marathon Black River 15-10 Waterline Release (2RP-5425), Malaga, New Mexico

To Whom it May Concern:

On behalf of Matador Resources, Souder, Miller & Associates (SMA) has prepared this Remediation Plan that describes the delineation and proposed closure for a release related to oil and gas production activities at the Marathon Black River 15-10 Waterline Right of Way (ROW). The site is in Units O & P, 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 summarizes information regarding the release.

Table 1: Release Information and Closure Criteria			
Name	Marathon Black River 15-10 Waterline	Company	Matador Resources
API Number	N/A	Location	32.21153397 -104.17421768
Incident Number	2RP-5425		
Estimated Date of Release	4/20/2019	Date Reported to NMOCD	4/21/2019
Land Owner	State	Reported To	NMOCD & NMSLO
Source of Release	Carbon Plug on the Meter Reader		
Released Volume	225 bbls	Released Material	Produced Water
Recovered Volume	--	Net Release	225 bbls
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	4/23/2019 & 5/6/2019		

1.0 Background

On April 20, 2019, a release was discovered at the site due to failure on a carbon plug on a meter reader. Initial response activities were conducted by operator, and included source elimination and site stabilization activities. Figures 1 and 2 illustrate the vicinity and site location, and Figure 3 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Marathon Black River 15-10 ROW is located approximately five miles west of Malaga, New Mexico on State land at an elevation of approximately 3239 feet above mean sea level (amsl).

Based upon the New Mexico Office of the State Engineer (NMOSE) online water well database, the United States Geological Survey (USGS) online water well database (Appendix B) and SMA's local knowledge, depth to groundwater in the area is estimated to be 108 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the NMOSE online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 4/30/2019). The nearest significant watercourse is a Canal #3798, located approximately 1300 feet to the southeast. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for groundwater depth of greater than 100 feet bgs. Pertinent well data is attached in Appendix B.

3.0 Release Characterization Activities and Findings

On April 23 & May 6, 2019, SMA personnel arrived on site in response to the release associated with the Marathon Black River 15-10 ROW. 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.

A total of eight sample locations (L1-L7 & BG1) were investigated using a hand-auger, to depths up to two feet bgs. Sample locations L2 and L7 represent the area affected by surficial overspray. A minimum of two samples were collected at each sampling location and field-screened using the method above. A total of twelve samples were collected for laboratory analysis for a combination of 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. Table 3 itemizes the samples and field-screening results as well as identifying any variances from the typical specification of two samples per boring. Locations for all samples are depicted on Figure 3.

Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix C).

Laboratory analysis indicates that there was no impact that exceeded the NMOCD Closure Criteria for this location. SMA recommends closure of the release, as the contamination meets closure criteria and does not cause an imminent risk to human health, the environment, or groundwater.

4.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization, regulatory liaison, and preparing this remediation plan. 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 Melodie Sanjari 574-370-9782 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Melodie Sanjari
Staff Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

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

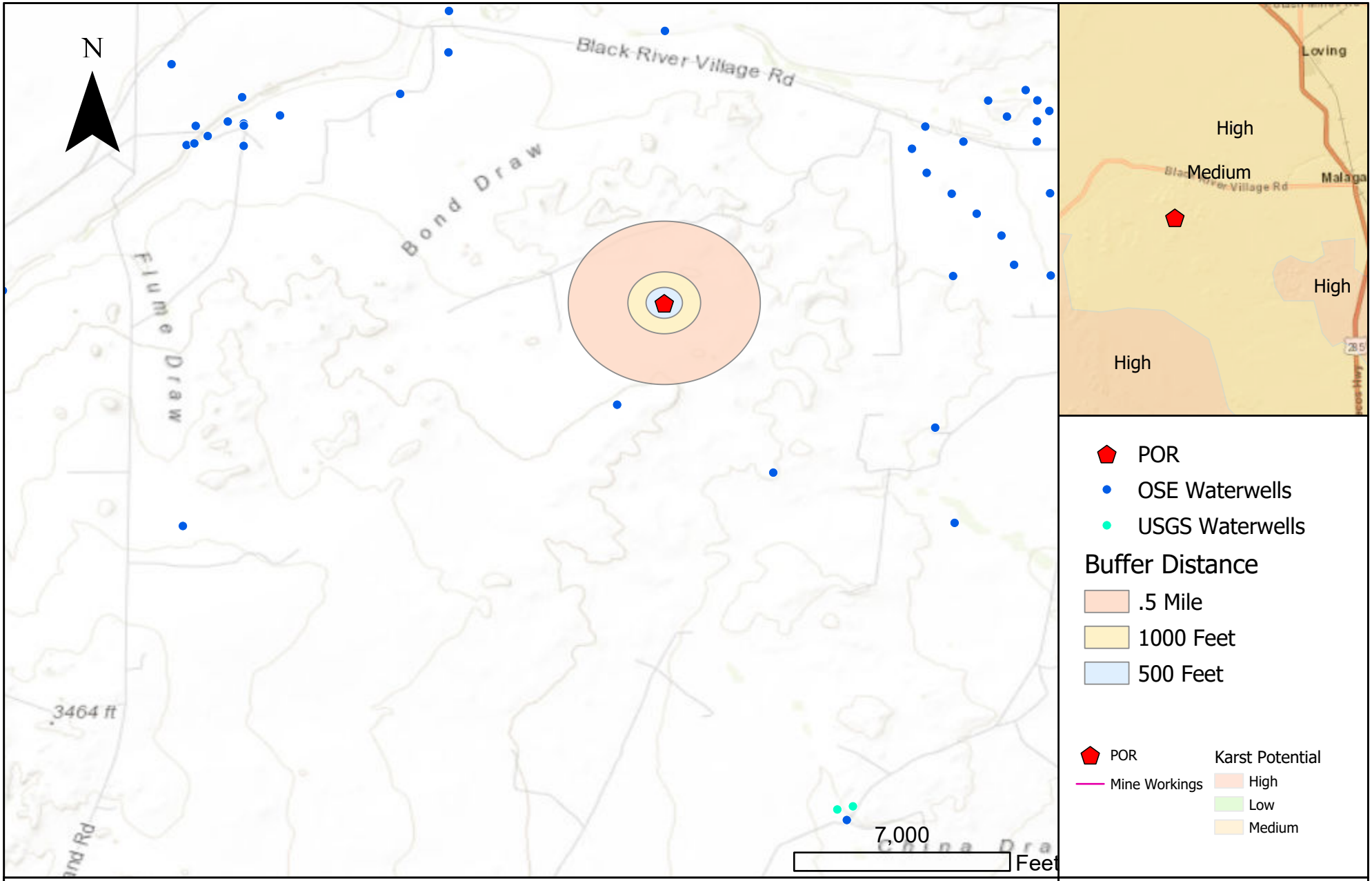
Tables:

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

Appendices:

Appendix A: C141 Forms
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports

FIGURES



Regional Vicinity & Wellhead Protection Map
Marathon Black River 15-10 Waterline - Matador Resources
Malaga, New Mexico

Figure 1

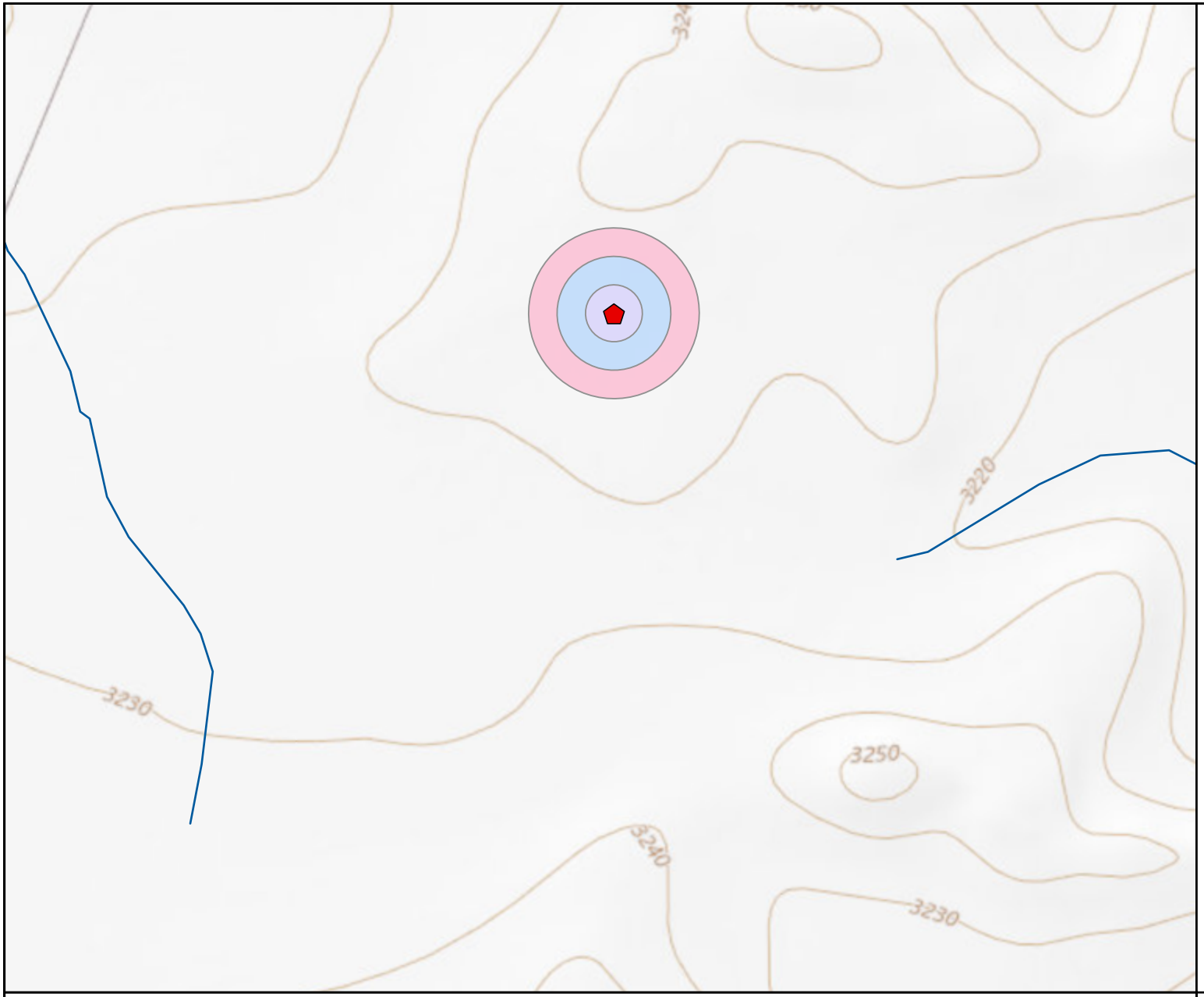
P:\15-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 4/30/2019

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

Drawn	MRS
Date	4/30/2019
Checked	
Approved	

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



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

Buffer Distance
100 Feet
200 Feet
300 Feet

N

810
Feet

Surface Water Protection Map
Marathon Black River 15-10 Water Line - Matador Resources
Malaga , NM

Figure 2

P:\5-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 4/30/2019

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

Drawn MRS
Date 4/30/2019
Checked
Approved

SMA

201 South Halaguena Street
Carlsbad, New Mexico 88221
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Sample Locations
Point of Release
Pipelines
Release Area
Pad

N

150
Feet

Site & Sample Location Map
Marathon Black River 15-10 Waterline - Matador Resources
Malaga, New Mexico

Figure 3

P:\15-Matador 2019 MSA (5E27961)\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 5/13/2019

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

Drawn
Date 5/13/2019
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Approved

SMA
201 South Halaguena Street
Carlsbad, New Mexico 88221
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TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	108	OSE & USGS (Appendix B)
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	1300' & 1890'	Canal #3298 (below) & Stream 3875 (finger of Black River)
Hortizontal Distance to Nearest Significant Watercourse (ft)	1300'	Northwest of Canal #3798 (7125' South of Black River)

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS		600	100		50	10
51' to 100'		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					
<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		600	100		50	10
<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 (med. Karst)					
within a 100-year floodplain?	no					

Table 3:
Summary of Sample Results

Matador Resources
Marathon Black River 15-10 Waterline

Sample ID	Sample Date	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria			50	10	1000			2500	20000
L1	4/23/2019	0.5	--	--	--	--	--	--	--
	4/23/2019	1	<0.217	<0.024	<4.8	<9.8	<49	<63.6	2200
	4/23/2019	2	--	--	--	--	--	--	400
L2	4/23/2019	0.5	<0.221	<0.025	<4.9	<9.8	<49	<63.7	330
	4/23/2019	1	--	--	--	--	--	--	--
	4/23/2019	2	--	--	--	--	--	--	--
L3	4/23/2019	0.5	--	--	--	--	--	--	--
	4/23/2019	1	--	--	<4.8	<9.5	<47	<52.3	7900
	4/23/2019	2	--	--	--	--	--	--	910
	5/6/2019	2.5	--	--	--	--	--	--	82
L4	4/23/2019	0.5	--	--	--	--	--	--	--
	4/23/2019	1	<0.225	<0.025	<5.0	<9.8	<49	<63.8	4900
	4/23/2019	2	--	--	--	--	--	--	630
L5	4/23/2019	0.5	<0.225	<0.025	<5.0	<10	<50	<65	<60
	4/23/2019	1	--	--	--	--	--	--	--
	4/23/2019	2	--	--	--	--	--	--	--
L6	4/23/2019	0.5	--	--	--	--	--	--	--
	4/23/2019	1	--	--	<4.9	<9.7	<49	<63.6	2000
	4/23/2019	2	--	--	--	--	--	--	<60
L7	4/23/2019	0.5	--	--	<4.9	<9.6	<48	<62.5	<60
	4/23/2019	1	--	--	--	--	--	--	--
	4/23/2019	2	--	--	--	--	--	--	--
BG1	4/23/2019	1	--	--	--	--	--	--	--

"--" = Not Analyzed

APPENDIX A
FORM C141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Resources	OGRID 228937
Contact Name: John Hurt	Contact Telephone 972-371-5200
Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.21153397 Longitude -104.17421768
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Marathon Black River 15-10 Waterline	Site Type: ROW
Date Release Discovered: 4/20/2019	API# *(if applicable) N/A*

Unit Letter	Section	Township	Range	County
O&P	15	24S	27E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private

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) 225 bbls	Volume Recovered (bbls)
	Is the concentration of dissolved chloride 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:
Carbon plug on the meter run blew out

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by SMA (Melodie Sanjari) to NMOCD District II on 4/21/2019 via email.	

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: John Hurt Title: RES Specialist

Signature: Date: 5/2/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

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
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Contact email: JHurt@matadorresources.com	Incident # *(assigned by OCD)*
Contact mailing address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

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(NAD 83 in decimal degrees to 5 decimal places)

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Date Release Discovered: 4/20/2019	API# *(if applicable) N/A*

Unit Letter	Section	Township	Range	County
O&P	15	24S	27E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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

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☒ Produced Water	Volume Released (bbls) 225 bbls	Volume Recovered (bbls)
	Is the concentration of dissolved chloride 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:
Carbon plug on the meter run blew out

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by SMA (Melodie Sanjari) to NMOCD District II on 4/21/2019 via email.	

Initial Response

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

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☒ 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: John Hurt Title: RES Specialist

Signature: Date: 5/28/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	108 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: John Hurt Title: RES Specialist

Signature: Date: 5/28/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: John Hurst Title: RES Specialist

Signature: [signature] Date: 5/28/19

email: JHurst@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B
NMOSE WELLS REPORT

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 01452		C	ED				22	24S	27E	577435	3563175*	1078	95	70	25
C 00347		CUB	ED		1	1	13	24S	27E	580010	3565479*	2544	60	30	30
C 03147		C	ED	3	3	3	12	24S	27E	579885	3565715	2571	140		
C 04147 POD1		CUB	ED	4	1	3	24	24S	27E	580101	3562969	2582	35		
C 01943		C	ED			1	13	24S	27E	580221	3565275*	2637	30	25	5
C 00342	C	CUB	ED		4	1	13	24S	27E	580432	3565080*	2761	2565		
C 03260 POD1		C	ED	3	3	3	12	24S	27E	579995	3565935	2792	80	56	24
C 03260 POD2	O	C	ED	1	3	3	12	24S	27E	580100	3565984	2905	80	56	24
C 03145		C	ED	3	1	4	13	24S	27E	580749	3564579*	2954	103	40	63
C 00850		C	ED		2	3	09	24S	27E	575595	3566223*	3020	108	35	73
C 00821		C	ED		3	2	09	24S	27E	575996	3566635*	3057	97	50	47
C 01721		C	ED			1	25	24S	27E	580271	3562033*	3258	170		
C 02976		C	ED	4	2	3	12	24S	27E	580519	3566195*	3366	57	27	30
C 00364	C	CUB	ED		1	2	09	24S	27E	575997	3567043*	3393	2270		
C 03037		C	ED	4	3	4	12	24S	27E	580930	3565795*	3502	116	25	91
C 01366		CUB	ED			4	08	24S	27E	574590	3566003*	3708	60	35	25
C 03740 POD1		C	ED	4	4	4	12	24S	27E	581283	3565795	3819	340		
C 00631		C	ED	3	3	4	08	24S	27E	574288	3565701*	3845	50	24	26
C 00516		CUB	ED	1	3	4	08	24S	27E	574288	3565901*	3929	105	36	69
C 00516 CLW201016	O	CUB	ED	1	3	4	08	24S	27E	574288	3565901*	3929	62		
C 00516 CLW308590	O	CUB	ED	1	3	4	08	24S	27E	574288	3565901*	3929	105	36	69
C 00516 S		CUB	ED	1	3	4	08	24S	27E	574288	3565901	3929	50	17	33

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

Average Depth to Water:	**37 feet**
Minimum Depth:	**17 feet**
Maximum Depth:	**70 feet**

Record Count: 22

UTMNAD83 Radius Search (in meters):

Easting (X): 577821.1 **Northing (Y):** 3564182 **Radius:** 4000

National Water Information System: Web Interface

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320959104093001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

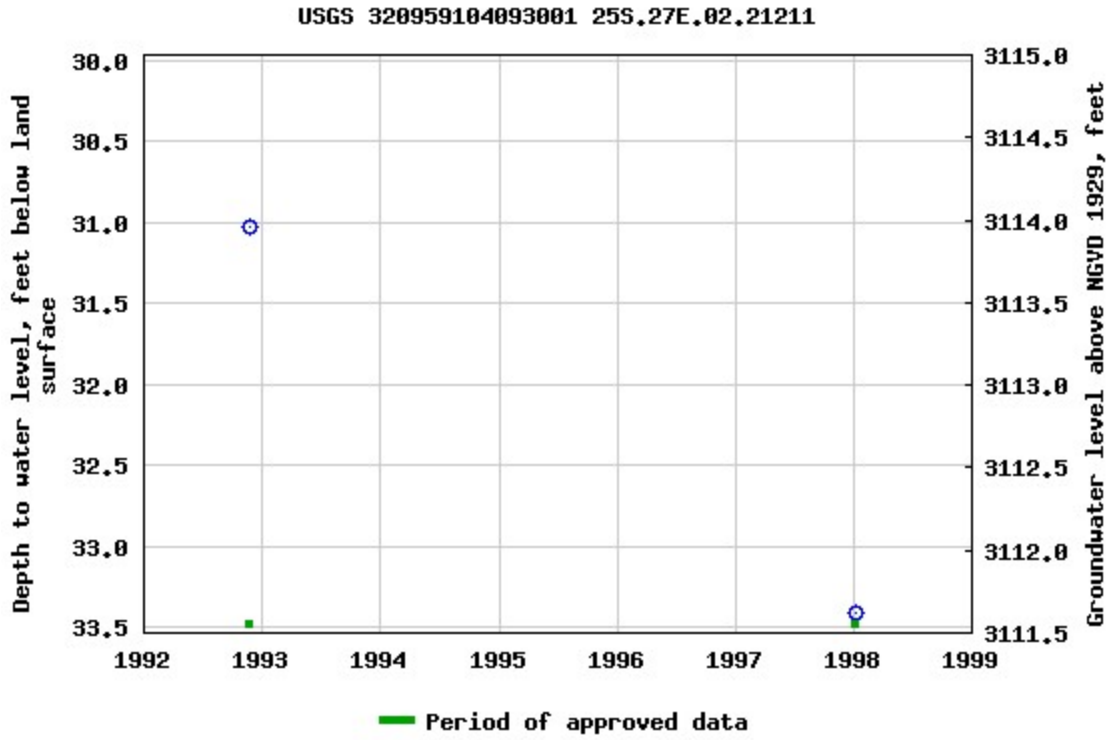
USGS 320959104093001 25S.27E.02.21211

Available data for this site Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°09'59", Longitude 104°09'30" NAD27
Land-surface elevation 3,145.0 feet above NGVD29
This well is completed in the Azotea Tongue of Seven Rivers Formation (313AZOT) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
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Help
Data Tips
Explanation of terms
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-04-30 13:18:27 EDT
0.99 0.9 nadww01

APPENDIX C

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 09, 2019

Melodie Sanjari

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

RE: Black River ROW (BR-ROW) OrderNo.: 1904C24

Dear Melodie Sanjari:

Hall Environmental Analysis Laboratory received 14 sample(s) on 4/25/2019 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 2, 2019.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 7:00:00 AM
Lab ID: 1904C24-001 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	2200	150		mg/Kg	50	5/2/2019 2:38:04 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2019 1:06:21 AM	44564
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/30/2019 1:06:21 AM	44564
Surr: DNOP	89.2	70-130		%Rec	1	4/30/2019 1:06:21 AM	44564
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2019 5:27:11 PM	44546
Surr: BFB	90.7	73.8-119		%Rec	1	4/27/2019 5:27:11 PM	44546
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/27/2019 5:27:11 PM	44546
Toluene	ND	0.048		mg/Kg	1	4/27/2019 5:27:11 PM	44546
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2019 5:27:11 PM	44546
Xylenes, Total	ND	0.097		mg/Kg	1	4/27/2019 5:27:11 PM	44546
Surr: 4-Bromofluorobenzene	89.7	80-120		%Rec	1	4/27/2019 5:27:11 PM	44546

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-2'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 7:10:00 AM
Lab ID: 1904C24-002 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	400	60		mg/Kg	20	4/30/2019 11:31:44 PM	44629

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-0.5'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 7:30:00 AM
Lab ID: 1904C24-003 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	330	60		mg/Kg	20	4/30/2019 11:44:09 PM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2019 1:28:45 AM	44564
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/30/2019 1:28:45 AM	44564
Surr: DNOP	85.7	70-130		%Rec	1	4/30/2019 1:28:45 AM	44564
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2019 5:50:45 PM	44546
Surr: BFB	88.3	73.8-119		%Rec	1	4/27/2019 5:50:45 PM	44546
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/27/2019 5:50:45 PM	44546
Toluene	ND	0.049		mg/Kg	1	4/27/2019 5:50:45 PM	44546
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2019 5:50:45 PM	44546
Xylenes, Total	ND	0.098		mg/Kg	1	4/27/2019 5:50:45 PM	44546
Surr: 4-Bromofluorobenzene	86.7	80-120		%Rec	1	4/27/2019 5:50:45 PM	44546

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 8:00:00 AM
Lab ID: 1904C24-005 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	7900	300		mg/Kg	100	5/2/2019 2:50:28 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/7/2019 3:23:18 PM	44736
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/7/2019 3:23:18 PM	44736
Surr: DNOP	96.2	70-130		%Rec	1	5/7/2019 3:23:18 PM	44736
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/7/2019 6:03:52 PM	44737
Surr: BFB	99.1	73.8-119		%Rec	1	5/7/2019 6:03:52 PM	44737

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-2'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 8:10:00 AM
Lab ID: 1904C24-006 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	910	60		mg/Kg	20	5/1/2019 12:08:59 AM	44629

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 8:20:00 AM
Lab ID: 1904C24-007 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	4900	150		mg/Kg	50	5/2/2019 3:02:52 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/7/2019 3:45:23 PM	44736
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/7/2019 3:45:23 PM	44736
Surr: DNOP	98.9	70-130		%Rec	1	5/7/2019 3:45:23 PM	44736
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/7/2019 6:27:14 PM	44737
Surr: BFB	94.1	73.8-119		%Rec	1	5/7/2019 6:27:14 PM	44737
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	5/7/2019 6:27:14 PM	44737
Toluene	ND	0.050		mg/Kg	1	5/7/2019 6:27:14 PM	44737
Ethylbenzene	ND	0.050		mg/Kg	1	5/7/2019 6:27:14 PM	44737
Xylenes, Total	ND	0.10		mg/Kg	1	5/7/2019 6:27:14 PM	44737
Surr: 4-Bromofluorobenzene	94.1	80-120		%Rec	1	5/7/2019 6:27:14 PM	44737

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-2'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 8:30:00 AM
Lab ID: 1904C24-008 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	630	60		mg/Kg	20	5/1/2019 12:33:48 AM	44629

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-0.5'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 8:45:00 AM
Lab ID: 1904C24-009 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	5/1/2019 12:46:12 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/30/2019 1:50:56 AM	44564
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/30/2019 1:50:56 AM	44564
Surr: DNOP	89.9	70-130		%Rec	1	4/30/2019 1:50:56 AM	44564
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/27/2019 6:14:02 PM	44546
Surr: BFB	87.1	73.8-119		%Rec	1	4/27/2019 6:14:02 PM	44546
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/27/2019 6:14:02 PM	44546
Toluene	ND	0.050		mg/Kg	1	4/27/2019 6:14:02 PM	44546
Ethylbenzene	ND	0.050		mg/Kg	1	4/27/2019 6:14:02 PM	44546
Xylenes, Total	ND	0.10		mg/Kg	1	4/27/2019 6:14:02 PM	44546
Surr: 4-Bromofluorobenzene	86.2	80-120		%Rec	1	4/27/2019 6:14:02 PM	44546

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-1'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 9:00:00 AM
Lab ID: 1904C24-011 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	2000	60		mg/Kg	20	5/1/2019 1:23:27 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/7/2019 4:07:22 PM	44736
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/7/2019 4:07:22 PM	44736
Surr: DNOP	103	70-130		%Rec	1	5/7/2019 4:07:22 PM	44736
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/7/2019 6:50:38 PM	44737
Surr: BFB	93.9	73.8-119		%Rec	1	5/7/2019 6:50:38 PM	44737

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-2'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 9:05:00 AM
Lab ID: 1904C24-012 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	5/1/2019 1:35:52 AM	44629

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-0.5'
Project: Black River ROW (BR-ROW)
Collection Date: 4/23/2019 9:30:00 AM
Lab ID: 1904C24-013 **Matrix:** SOIL
Received Date: 4/25/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	5/1/2019 1:48:16 AM	44629
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/7/2019 4:29:32 PM	44736
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/7/2019 4:29:32 PM	44736
Surr: DNOP	84.7	70-130		%Rec	1	5/7/2019 4:29:32 PM	44736
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/7/2019 7:14:01 PM	44737
Surr: BFB	93.1	73.8-119		%Rec	1	5/7/2019 7:14:01 PM	44737

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C24**
09-May-19

Client: Souder, Miller & Associates
Project: Black River ROW (BR-ROW)

Sample ID: **MB-44629**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44629**	RunNo: **59543**							
Prep Date: **4/30/2019**	Analysis Date: **4/30/2019**	SeqNo: **2006282**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44629**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44629**	RunNo: **59543**							
Prep Date: **4/30/2019**	Analysis Date: **4/30/2019**	SeqNo: **2006283**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	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 Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C24**
09-May-19

Client: Souder, Miller & Associates
Project: Black River ROW (BR-ROW)

Sample ID: **LCS-44564** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **44564** RunNo: **59489**
Prep Date: **4/26/2019** Analysis Date: **4/29/2019** SeqNo: **2004951** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	63.9	124			
Surr: DNOP	5.2		5.000		105	70	130			

Sample ID: **MB-44564** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **44564** RunNo: **59489**
Prep Date: **4/26/2019** Analysis Date: **4/29/2019** SeqNo: **2004952** 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		108	70	130			

Sample ID: **LCS-44584** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **44584** RunNo: **59489**
Prep Date: **4/29/2019** Analysis Date: **4/30/2019** SeqNo: **2005373** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		101	70	130			

Sample ID: **MB-44584** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **44584** RunNo: **59489**
Prep Date: **4/29/2019** Analysis Date: **4/30/2019** SeqNo: **2005374** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	14		10.00		135	70	130			S

Sample ID: **LCS-44736** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **44736** RunNo: **59674**
Prep Date: **5/6/2019** Analysis Date: **5/7/2019** SeqNo: **2012068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	63.9	124			
Surr: DNOP	4.0		5.000		79.8	70	130			

Sample ID: **MB-44736** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **44736** RunNo: **59674**
Prep Date: **5/6/2019** Analysis Date: **5/7/2019** SeqNo: **2012069** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C24**
09-May-19

Client: Souder, Miller & Associates
Project: Black River ROW (BR-ROW)

Sample ID: **MB-44736** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **44736** RunNo: **59674**
Prep Date: **5/6/2019** Analysis Date: **5/7/2019** SeqNo: **2012069** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C24**

09-May-19

Client: Souder, Miller & Associates

Project: Black River ROW (BR-ROW)

Sample ID: **MB-44546**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44546**	RunNo: **59477**
Prep Date: **4/25/2019**	Analysis Date: **4/27/2019**	SeqNo: **2003610** 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	890		1000		89.5	73.8	119			

Sample ID: **LCS-44546**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44546**	RunNo: **59477**
Prep Date: **4/25/2019**	Analysis Date: **4/27/2019**	SeqNo: **2003611** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

Sample ID: **LCS-44737**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44737**	RunNo: **59701**
Prep Date: **5/6/2019**	Analysis Date: **5/7/2019**	SeqNo: **2012808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.8	80.1	123			
Surr: BFB	1100		1000		106	73.8	119			

Sample ID: **MB-44737**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44737**	RunNo: **59701**
Prep Date: **5/6/2019**	Analysis Date: **5/7/2019**	SeqNo: **2014347** 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	930		1000		92.8	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 Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C24**

09-May-19

Client: Souder, Miller & Associates

Project: Black River ROW (BR-ROW)

Sample ID: **MB-44546** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **44546** RunNo: **59477**

Prep Date: **4/25/2019** Analysis Date: **4/27/2019** SeqNo: **2003656** 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	0.89		1.000		88.7	80	120			

Sample ID: **LCS-44546** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **44546** RunNo: **59477**

Prep Date: **4/25/2019** Analysis Date: **4/27/2019** SeqNo: **2003657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.2	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.8	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.3	80	120			

Sample ID: **LCS-44737** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **44737** RunNo: **59701**

Prep Date: **5/6/2019** Analysis Date: **5/7/2019** SeqNo: **2014350** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.025	1.000	0	80.8	80	120			
Toluene	0.84	0.050	1.000	0	84.2	80	120			
Ethylbenzene	0.84	0.050	1.000	0	84.2	80	120			
Xylenes, Total	2.5	0.10	3.000	0	84.2	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.2	80	120			

Sample ID: **MB-44737** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **44737** RunNo: **59701**

Prep Date: **5/6/2019** Analysis Date: **5/7/2019** SeqNo: **2014353** 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	0.93		1.000		92.5	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **SMA-CARLSBAD** Work Order Number: **1904C24** RcptNo: **1**

Received By: **Erin Melendrez** **4/25/2019 9:20:00 AM**

Completed By: **Leah Baca** **4/25/2019 11:22:17 AM**

Reviewed By: ENM 4/25/19

Labeled by JJC 4-25-19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: JJC 4-25-19

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5day

Project Name: Black River ROW (BR-ROW)

Project #:

Project Manager: Melodie Sanjari

Sampler: MRS

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904C24	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/23	7:00	soil	L1-1'	4oz.		-001	✓	✓					✓			
	7:10		L1-2'			-002							✓			
	7:30		L2-0.5'			-003	✓	✓					✓			
	7:40		L2-1'			-004	PLEASE HOLD									
	8:00		L3-1'			-005							✓			
	8:10		L3-2'			-006							✓			
	8:20		L4-1'			-007							✓			
	8:30		L4-2'			-008							✓			
	8:45		L5-0.5'			-009	✓	✓					✓			
	8:50		L5-1'			-010	PLEASE HOLD									
	9:00		L6-1'			-011							✓			
↓	9:05	↓	L4-2'	↓		-012							✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/23/19	12:00	M Sanjari				
4/23/19	1900			Courier	4/24/19	1500
					4/25/19	0920

Remarks:
Matador
Per Melodie - add the following tests:
1/2 -5 - TPH
-7 - BTEX - TPH
-11 - TPH
-13 - TPH
4 5/6

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.

Chain-of-Custody Record

Client: SMA Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: Back River Row (BR-Row)

Project #:

Project Manager: Melodie Sanjari

Sampler: MRS.

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904C24	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/23	9:30	soil	L7-0.5'	4oz.		-013			mes				✓			
↓	9:45	↓	L7-1'			-014		PLEASE RUN (1)								

Remarks: Matador.

2/2

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4.23.19	12:00	Samantha Watson			4/24/19	1500
4/23/19	1500			courier	4/25/19	0920

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 10, 2019

Melodie Sanjari

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

RE: Black River 15-10 OrderNo.: 1905377

Dear Melodie Sanjari:

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

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1905377**
Date Reported: **5/10/2019**

CLIENT: Souder, Miller & Associates
Project: Black River 15-10
Lab ID: 1905377-001 **Matrix:** SOIL

Client Sample ID: L3-2.5
Collection Date: 5/6/2019 2:00:00 PM
Received Date: 5/8/2019 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	82	60		mg/Kg	20	5/9/2019 11:23:55 PM	44837

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905377**

10-May-19

Client: Souder, Miller & Associates

Project: Black River 15-10

Sample ID: **MB-44837**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **44837**	RunNo: **59766**
Prep Date: **5/9/2019**	Analysis Date: **5/9/2019**	SeqNo: **2016270** Units: **mg/Kg**

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

Sample ID: **LCS-44837**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **44837**	RunNo: **59766**
Prep Date: **5/9/2019**	Analysis Date: **5/9/2019**	SeqNo: **2016271** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **SMA-CARLSBAD** Work Order Number: **1905377** RcptNo: **1**

Received By: **Isaiah Ortiz** **5/8/2019 8:50:00 AM** I-OX

Completed By: **Isaiah Ortiz** **5/8/2019 10:01:02 AM** I-OX

Reviewed By: NB 5/8/19

LB: DAD 5/8/19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: DAD 5/8/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

Chain-of-Custody Record

Client: SMA-Carlsbad.

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: Black River 15-10

Project #:

Project Manager: Melodie Sanjari

Sampler: MRS

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.3°C

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1905377	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/6	2:00	Soil	L3-2.5'	4oz.		-001							✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/6.		M Sanjari			5/6/19	1500
5/8/19	1900			courier	5/8/19	0850

Remarks: Matador.