NOY1825051444 - Closure Report Amendment - ACO Incident Revisited.





July 7, 2023

New Mexico Oil Conservation Division 1220 South St, Francis Drive Santa Fe, NM 87505

Re: Amendment to Closure Report Flowmaster 24 34 15 SB #4H Marathon Oil Corporation NOY1825051444 1RP-5184 Site Location: Unit D, S15, T24S, R34E (Lat 32.223850°, Long -103.461910°) Lea County, New Mexico

To Whom It May Concern:

On behalf of Marathon Oil Corporation (Marathon), Carmona Resource, LLC has prepared this letter to document additional site activities for the Flowmaster 24 34 15 SB #4H. The site is located at the GPS 32.223850°, -103.461910° within Unit A, S26, T24S, R34E in Lea County, New Mexico.

1.0 Site Information and Background

NOY1825051444/1RP-5184

On March 7, 2023, the New Mexico OCD denied the closure report for the following reason: The confirmation sample point CS2 does not meet the closure criteria of 600 mg/kg for chloride. Please continue to delineate sample point CS2 to 600 mg/kg for chlorides and include sample points in your next report after closure criteria limits have been met.

2.0 Site Assessment Activities

On June 21, 2023, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts stemming from the release. One (1) sample point (S-1) was advanced to a depth ranging from the surface to 1.5' bgs inside the release area at CS2 to assess the vertical extent. See Figure 3 for the sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 4500. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix D.

All samples were below the regulatory requirements for TPH, BTEX, and chloride. Refer to Table 1. The sample point of CS2 has undergone attenuation from precipitation and weather events that occurred from the initial sampling on October 21, 2018, to the present.

310 West Wall Street, Suite 500 Midland, Texas 79701 432.813.1992



3.0 Conclusions

Based on the assessment results and the analytical data, no further actions are required at the site. The final C-141 is attached in Appendix A of the original request for closure. Marathon formally requests the closure of the spill. If you have any questions regarding this report or need additional information, please get in touch with us at 432-813-1992.

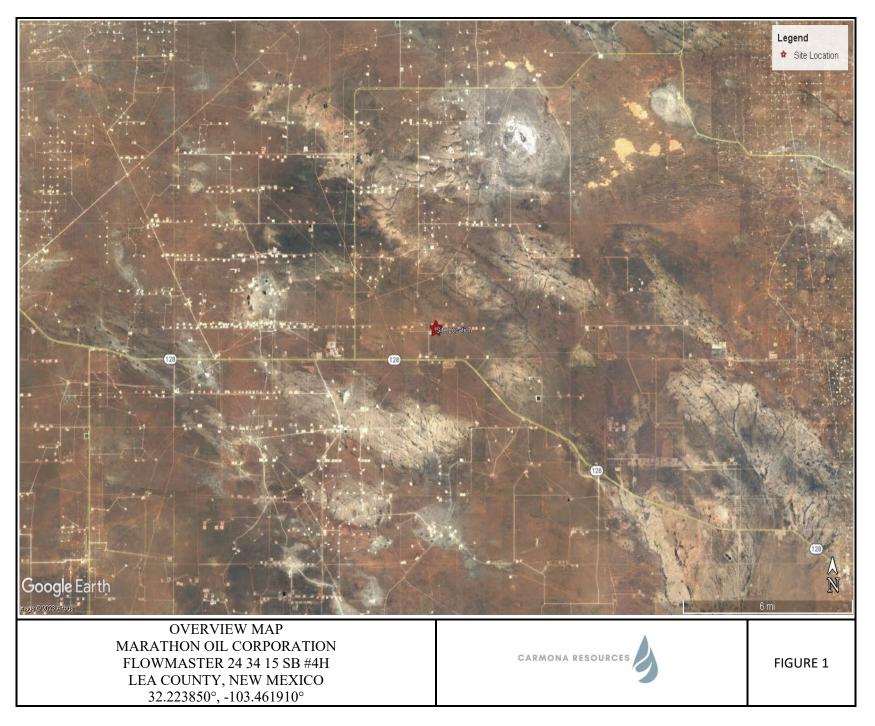
Sincerely, Carmona Resources, LLC

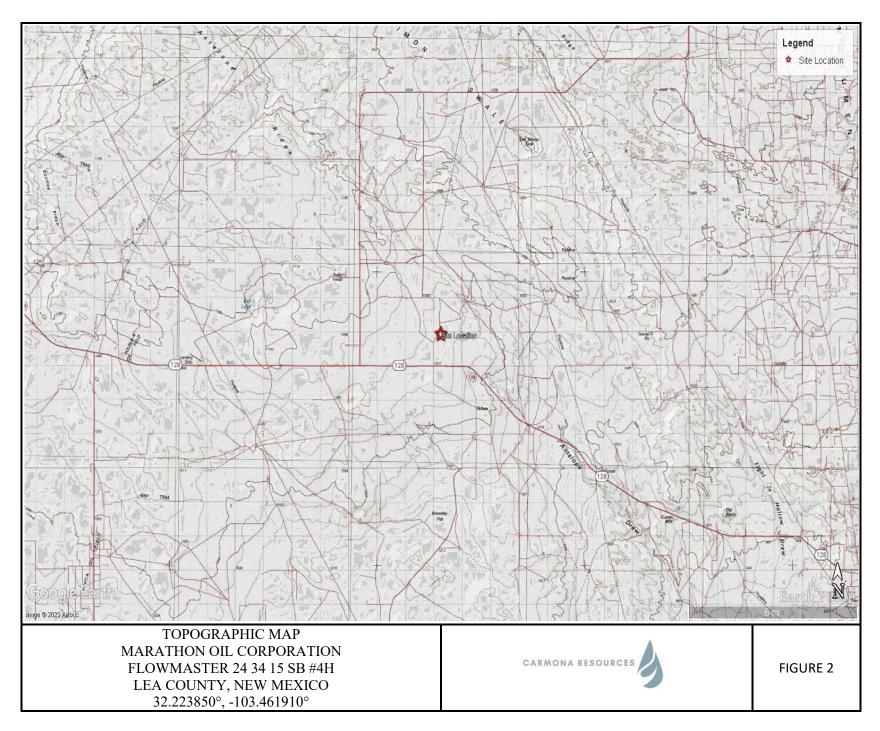
Mike Carmona Environmental Manager

Clinton Merritt Sr. Project Manager











APPENDIX B



Table 1 Marathon Oil Corporation Flowmaster 24 34 15 SB #4H Lea County, New Mexico

	Dete			TPH	l (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	6/21/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
S-1	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	192
	"	1.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96.0
Regulato	ry Criteria ^A					100 mg/kg	10 mg/kg				50 mg/kg	600 mg/kg
	A se a la sura al											

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram TPH- Total Petroleum Hydrocarbons

ft-feet

(S) - Sample Point

APPENDIX C



PHOTOGRAPHIC LOG

Marathon Oil Corporation

Photograph N	o. 1	SE S SW W 120 150 180 210 240 270 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 •
Facility:	Flowmaster 24 34 15 SB #4H	© 200°S (T) LAT: 32.223520 LON: -103.462093 ±13ft ▲ 3523ft
County:	Lea County, New Mexico	
Description: View Southwest	of sample point S-1.	21 Jun 2023, 10:51:30 AM
Photograph N	0.2	S SW W NW 180 210 240 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Facility:	Flowmaster 24 34 15 SB #4H	© 262°W (T) LAT: 32.223447 LON: -103.462025 ±13ft ▲ 3527ft
County:	Lea County, New Mexico	
Description: View West of sa	mple point S-1.	21 Jun 2023, 10:51:38 AM
Photograph N	o. 3	SW W NW N 210 240 270 000 330 0 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 •
Facility:	Flowmaster 24 34 15 SB #4H	© 298°NW (T) LAT: 32.223383 LON: -103.462038 ±13ft ▲ 3528ft
County:	Lea County, New Mexico	
Description: View Northwest	of sample points S-1.	21. Jun 2023, 10:51 1:38 AM

APPENDIX D





June 28, 2023

CLINT MERRITT CARMONA RESOURCES 310 W WALL ST SUITE 415 MIDLAND, TX 79701

RE: FLOWMASTER 24 34 15 SB #4H

Enclosed are the results of analyses for samples received by the laboratory on 06/23/23 12:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	06/23/2023	Sampling Date:	06/21/2023
Reported:	06/28/2023	Sampling Type:	Soil
Project Name:	FLOWMASTER 24 34 15 SB #4H	Sampling Condition:	Cool & Intact
Project Number:	2050	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NEW MEXICO		

Sample ID: S - 1 (0-0.5') (H233278-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2023	ND	2.28	114	2.00	4.59	
Toluene*	<0.050	0.050	06/24/2023	ND	2.15	107	2.00	0.640	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.25	112	2.00	3.92	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.77	113	6.00	2.78	
Total BTEX	<0.300	0.300	06/24/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/23/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	171	85.4	200	0.783	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	180	90.0	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					
Surrogate: 1-Chlorooctane	92.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	101	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	06/23/2023	Sampling Date:	06/21/2023
Reported:	06/28/2023	Sampling Type:	Soil
Project Name:	FLOWMASTER 24 34 15 SB #4H	Sampling Condition:	Cool & Intact
Project Number:	2050	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NEW MEXICO		

Sample ID: S - 1 (1') (H233278-02)

BTEX 8021B	mg,	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2023	ND	2.28	114	2.00	4.59	
Toluene*	<0.050	0.050	06/24/2023	ND	2.15	107	2.00	0.640	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.25	112	2.00	3.92	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.77	113	6.00	2.78	
Total BTEX	<0.300	0.300	06/24/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/23/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	171	85.4	200	0.783	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	180	90.0	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					
Surrogate: 1-Chlorooctane	96.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

Received:	06/23/2023	Sampling Date:	06/21/2023
Reported:	06/28/2023	Sampling Type:	Soil
Project Name:	FLOWMASTER 24 34 15 SB #4H	Sampling Condition:	Cool & Intact
Project Number:	2050	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY, NEW MEXICO		

Sample ID: S - 1 (1.5') (H233278-03)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/24/2023	ND	2.28	114	2.00	4.59	
Toluene*	<0.050	0.050	06/24/2023	ND	2.15	107	2.00	0.640	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.25	112	2.00	3.92	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.77	113	6.00	2.78	
Total BTEX	<0.300	0.300	06/24/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/23/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	171	85.4	200	0.783	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	180	90.0	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					
Surrogate: 1-Chlorooctane	93.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	101	% 49.1-14	8						

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*=Accredited Analyte

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

	Comments: Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint metritt metritt metritt weritte					S-1 (1.5')	S-1 (1')	S-1 (0-0.5')	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location	Project Number:	Project Name:	Phone:	City, State ZIP: N			Project Manager: C
R	results to Mike					5')	.)	.5')	ification		Yes	Yes	Yes				Lea Co		Flowmast		Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources	Clinton Merritt
elinquished t	Carmona m					6/21/2023	6/21/2023	6/21/2023	Date		NO CNIA	NIA	No	Temp Blank:		CCM	Lea County, New Mexico	2050	Flowmaster 24 34 15 SB #4H		01	te 500	ces	
Relinquished by: (Signature)	ıcarmona@c:					9:30	9:28	9:25	Time	Corrected Temperature	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes No			exico		SB #4H					
	armonaresou					×	×	×	Soil	perature:	eading:	Pr.		Wet Ice:			Due Date:	Routine	Tur	Email:				
	rces.com, Co								Water C	0.0	21.0	-0.6	011	Xes No			5 Day TAT	Rush	Turn Around	I: msanjari@marathonoi	City, State ZIP:	Address:	Company Name:	Bill to: (if different)
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Received by OCD: 7/10/2023 9:41:59 AM

K233278

Work Order No: 🚽

Chain of Custody



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

November 28, 2018

#5E27499-BG12

NMOCD District 1 Ms. Olivia Yu 1625 N. French Drive Hobbs, New Mexico 88240

SUBJECT: Remediation Closure Report for the Flowmaster 24 34 15 SB #4H Release (1RP-5184), Lea County, New Mexico

Dear Ms. Yu:

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 Flowmaster 24 34 15 SB #4H site. The site is in Section 15, Township 24S, Range 34E, Lea County, New Mexico, on private land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and closure criteria.

	Table 1: Release Information	on and Closure	Criteria						
Name	Flowmaster 24 34 15 SB #4H	Company	Marathon Oil Permian LLC						
API Number	30-025-43666 Location 32.22385° -103.46191°								
Incident Number		1RP-5184							
Estimated Date of Release	8/27/2018	Date Reported to NMOCD	8/28/2018						
Land Owner	Private	Reported To	NMOCD						
Source of Release	Flare								
Released Volume	15 gallons	Released Material	Crude Oil						
Recovered Volume	0 gallons	Net Release	15 gallons						
NMOCD Closure Criteria	51-100 feet to groundwater								
SMA Response Dates	September 25, October 30-31, 2018								

1.0 Background

On August 27, 2018, a release was discovered at the Flowmaster 24 34 15 SB #4H site due to due to a failed pressure reducer allowing the scrubber pot relief valve to release excess pressure. The dump valves shut and filled the vessel allowing oil to fill the gas vent line and releasing out the flare. Approximately 15 gallons of oil was released and ignited on location. The wells where shut in and the flames were extinguished by a fire extinguisher. Figure 1 illustrates the vicinity and site location, Figure 3 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Flowmaster 24 34 15 SB #4H is located approximately 18 miles northwest of Jal, New Mexico on privately-owned land. As summarized in Table 2 and illustrated in Figure 1, depth to groundwater in the area is estimated to be sixty-three (63) feet below grade surface (bgs). There is one known well 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 11/13/2018). This well was permitted as an exploratory well only. USGS well (321328103270601), located approximately 0.58 miles east of the release, which documents groundwater at approximately 63 feet bgs. The nearest surface water is an unnamed playa located approximately 715 feet to the northeast.

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 Activities and Findings

On September 25, 2018, SMA personnel arrived on site in response to the release associated with Flowmaster 24 34 15 SB #4H. 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 seven (7) sample locations (L1-L7) were investigated using a hand-auger, to depths up to six (6) inches bgs. A total of seven (7) 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. Table 3 itemizes the results. Locations for all samples are depicted on Figure 2.

Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

4.0 Soil Remediation Summary

SMA returned to the site on October 30, 2018 to oversee the excavation of contaminated soil. After approval from area utilities via 811, SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 2000 photoionization detector (PID). The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be

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Flowmaster 24 34 15 SB #4H Remediation Closure Report (1RP-5184) November 28, 2018

met. NMOCD was notified on October 29, 2018 that closure samples were expected to be collected in two (2) business days.

On October 31, 2018, SMA conducted confirmation sampling of the impacted area, which measured approximately 20 by 20 feet. The areas CS-1 was excavated to a depth of one (1) foot bgs. Sample area CS-2 was excavated to a depth of 0.5 feet bgs. Confirmation samples were collected from within the excavation in accordance with the sampling protocol included in Appendix C. Confirmation samples were composed of five-point composites including four sidewall samples (CSW1-CSW4) and two bottom hole samples (CS1-CS2).

Figure 2 shows the extent of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

In addition to meeting the Closure Criteria, the top four (4) feet of impacted areas of the well pad meet the Reclamation requirement of 19.15.29.13(D)(1) with the exception of chlorides for CS2 at 5,500 mg/Kg. The area of CS2 will be addressed during plug and abandonment activities. Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours

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 Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by: SOUDER, MILLER & ASSOCIATES Reviewed by:

Ashley Maxwell Project Scientist

hubbuck

Shawna Chubbuck Senior Scientist

Page 4 of 4

Flowmaster 24 34 15 SB #4H Remediation Closure Report (1RP-5184) November 28, 2018

ATTACHMENTS:

Figures:

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

Tables:

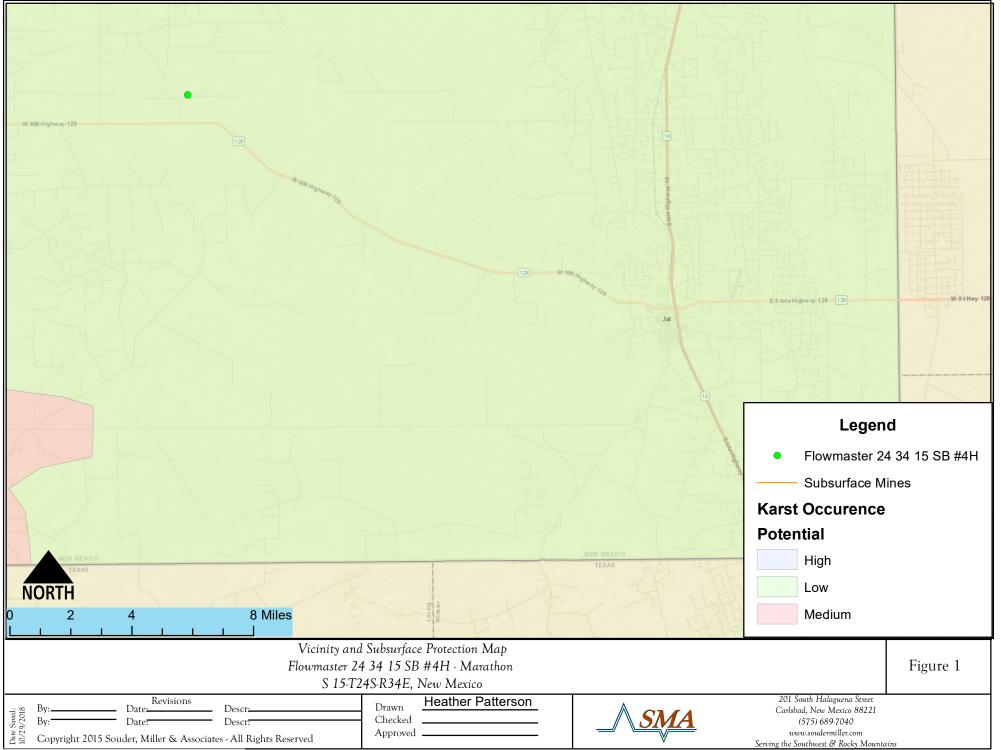
Table 2: NMOCD Closure Criteria Justification Table 3: Summary of Sample Results

Appendices:

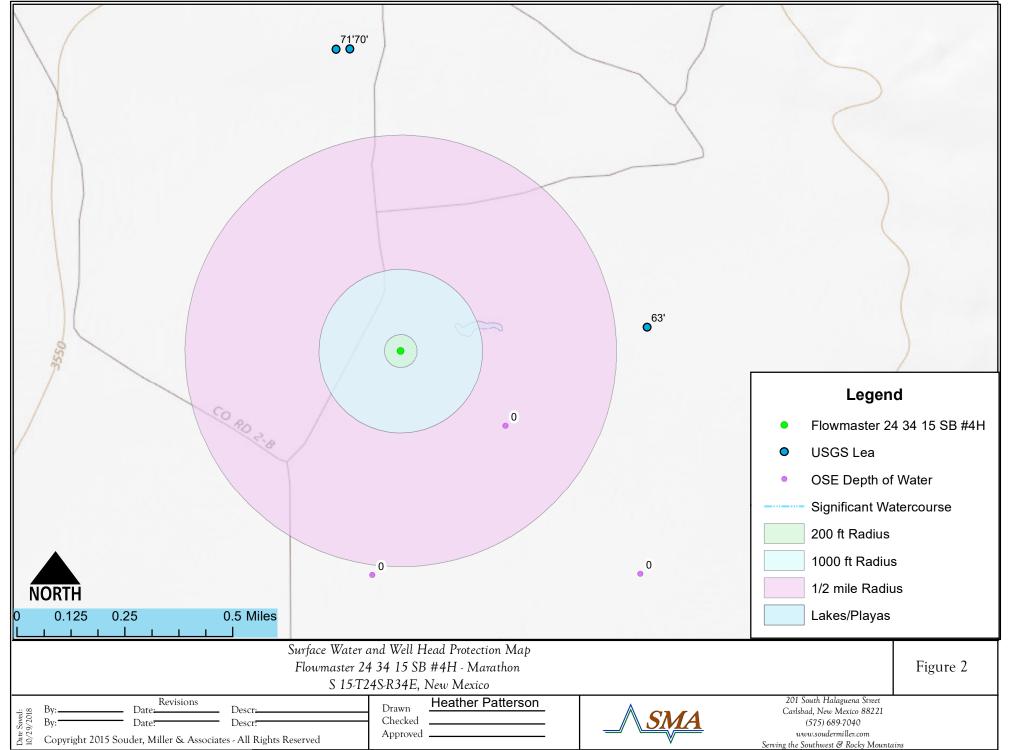
Appendix A: Form C141 Appendix B: Groundwater Data Appendix C: Field Notes, Sampling Protocol, Photo Documentation Appendix D: Laboratory Analytical Reports

FIGURES

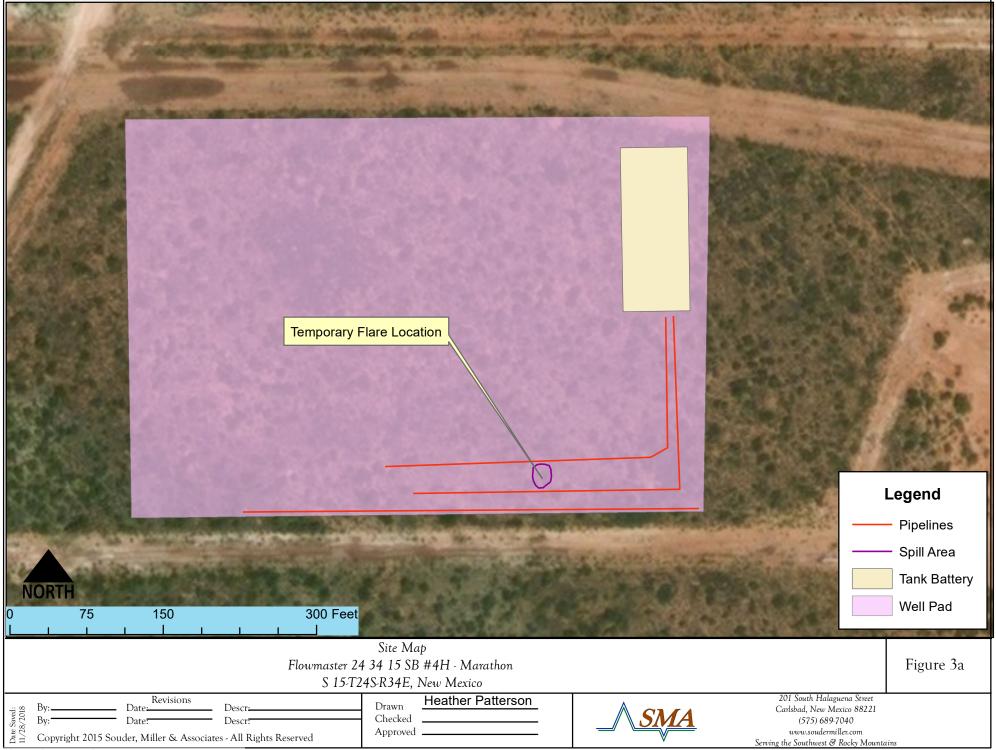
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Received by OCD: 7/10/2023 9:41:59 AM



Released to Imaging: 7/20/2023 1:40:05 PM





TABLES

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Table 2: NMOCD Closure Criteria

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	63	USGS Water Data
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	1,146	NMOSE
Hortizontal Distance to Nearest Significant Watercourse (ft)	715	7.5 minute quadrangle map

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)							
	Closure Criteria (units in mg/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 yes, then					
<300' from continuously flowing watercourse or other significant watercourse? <200' from lakebed, sinkhole or playa lake?	No 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		100		50	10	
Human and Other Areas		600					
<300' from an occupied permanent residence, school, hospital,		600	100		50	10	
institution or church?	No						
within incorporated municipal boundaries or within a defined							
municipal fresh water well field?	No						
<100' from wetland?	No						
within area overlying a subsurface mine	No						
within an unstable area?	No						
within a 100-year floodplain?	No						

Flowmaster 24 34 15 SB #4H

Table 3.

Initial Sampling Event

Sample				BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
Number on Figure 2	Sample Date	Depth (feet bgs)	Action	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Laboratory mg/Kg
	NMOCD Clos	sure Criteria		50	10	10	00		2500	10000
L1	9/25/2018	0.5	excavated	<0.23	<0.024	<4.7	3100	2000	5100	6800
L2	9/25/2018	0.5	excavated	<0.23	<0.024	<4.9	540	230	770	18000
L3	9/25/2018	0.5	excavated	<0.23	<0.023	<4.6	110	62	172	2800
L4	9/25/2018	0.5	excavated	<0.23	<0.023	<4.7	270	<47	270	1200
L5	9/25/2018	0.5	excavated	<0.23	<0.024	<4.7	320	<49	320	4600
L6	9/25/2018	0.5	excavated	<0.23	<0.024	<4.7	310	<48	310	2900
L7	9/25/2018	0.5	excavated	<0.23	<0.023	<4.7	890	160	1,050	6000

Composit Confirmation Sampling Event

Sample				BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
Number on Figure 2	Sample Date	Depth (feet bgs)	Action	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Laboratory mg/Kg
	NMOCD Clos	sure Criteria		50	10	10	00		2500	10000
CS1	10/31/2018	0.5	in-situ	<0.23	<0.024	<4.7	<9.7	<48	<63	<30
CS2	10/31/2018	0.5	in-situ	<0.23	<0.024	<4.9	21	<49	21	5500
CSW1	10/31/2018	0.5	in-situ	<0.23	<0.024	<4.9	81	81	162	630
CSW2	10/31/2018	0.5	in-situ	<0.23	<0.024	<4.8	66	<49	66	<30
CSW3	10/31/2018	0.5	in-situ	<0.23	<0.023	<4.6	<9.8	<49	<64	130
CSW4	10/31/2018	0-1	in-situ	<0.23	<0.024	<4.8	11	<49	11	<30

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	NOY1825051444
District RP	1RP-5184
Facility ID	
Application ID	pOY1825049902

Release Notification

Responsible Party

Responsible Party Marathon Oil Permian LLC	OGRID 371127 372098
Contact Name Isaac Castro	Contact Telephone 575-988-0561
Contact email icastro@marathonoil.com	Incident # NOY1825051444
Contact mailing address 4111 Tidwell Road, Carlsbad, NM 8822	20

Location of Release Source

(NAD 83 in decimal degrees to 5 decimal places)

Longitude

-103.46191

Latitude 32.22385

Date Release Discovered 8/28/18 6:48 pm 8/27/2018 API# (if applicable) 30-025-43666	

Unit Letter	Section	Township	Range	County	Fee minerals
D	15	24S	34E	Lea	

Surface Owner: State Federal Tribal X Private (Name: Pitchfork Cattle Company LLC

Nature and Volume of Release

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

Volume Released (bbls) 15 gal.	Volume Recovered (bbls) 0 gal
Volume Released (bbls)	Volume Recovered (bbls)
Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Volume Released (bbls)	Volume Recovered (bbls)
Volume Released (Mcf)	Volume Recovered (Mcf)
Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
	Volume Released (bbls) Is the concentration of dissolved chloride in the produced water >10,000 mg/l? Volume Released (bbls) Volume Released (Mcf)

Cause of Release

During flowback operations, the pressure reducer failed, allowing high side unit pressure to the scrubber pot, causing the scrubber pot relief valve to release excess pressure. The dump valves shut and filled the vessel, allowing oil to fill the gas vent line and releasing out the flare. Approximately 15 gallons of oil was released and ignited on location. The wells were shut in and the flames were extinguished by a fire extinguisher.

Solute OF New MeRCO Dige 2 Oil Conservation Division Incident ID NOV12250 District RP Incident ID Precises as defined by Incident ID In1.5.27.(A) NMAC? During flowback operations, oil was released out the flare and a small fire occurred on location. If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was given on 8/28/18 4:02 pm via email by Callie Karrigan. Initial Response The responsible party must undertake the following actions immediately unless they could create a safety hazard that would readt in injury The source of the release has been scoured 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 gobe mode the. If remedial efforts have been successfully completed or if the release. If has begun, please attach a narrative of actions to be the. If the end on and propriated party mediately. Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If has begun, please attach a narrative of actions to be made. There were no standing free liquids. An approximate 10x10 ft area was in the fire and was cleaned up immediately. Per 19.15.29.8 B. (4) N	Page 33 0
Facility ID Provide Complexity Was this a major If YES, for what reason(s) does the responsible party consider this a major release? Pelease as defined by 19.15.29.7(A) NMAC? Wing flowback operations, oil was released out the flare and a small fire occurred on location. If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was given on 8/28/18 4:02 pm via email by Callic Karrigan. 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 sceured to protect human health and the environment. All free liquids and recoverable materials have been removed and managed appropriately. If all the actions described above have got been undertaken, explain why: Operations described above have got been undertaken, explain why: Operations described above have got been and complete to the best of my knowledge and understand that pursuant to OCD regulations and operators are cognized or sittle creating of the release of a cl-14 report of the release at a cl-14 information given above is true and complete to the best of my knowledge and understand that pursuant to OCD regulations and operators are cognized or corter and or file certain release or the release at the all information material eleval or of the release. If has begun, please attach an information needed for cl-14 report by the OCD does not relever the operator	<u> </u>
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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: Operations were shut in for repairs to be made. There were no standing free liquids. An approximate 10x10 ft area was in the fire and was cleaned up immediately. Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the rele within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation in the operator of individual of the ergent of a complete to the best of my knowledge and understand that pursuant to OCD regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which my public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of activity should their oper failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the enviror addition, OCD acceptance of a C-141 report by the operator of responsibility for compliance with any other federal, state, or and/or regulations. Printed Name: Isaac Castro Title: Advanced Environmental Technician Signature: Isaac Castro Distribute the operator of responsibility for compliance with any other federal, state, or and/or regulations. 	
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Signature: Asaac Castro Date: 9-6-18	local laws
Signature: Asaac Castro Date: 9-6-18	
email:icastro@marathonoil.com Telephone:575-988-0561	
OCD Only REVIEWED	
Received by: By Olivia Yu at 1:55 pm, Sep 07, 2018 Date:	

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Received by OCD: 7/10/2023 9:41:59 AM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

Incident ID	nOY1825051444
District RP	1RP-5184
Facility ID	
Application ID	pOY1825049902

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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>_63</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
- \boxtimes 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.

Received by OCD: 7/10/2023 9:41:59 AM Form C-141 State of New Mexico			Page 35 of 95	
			Incident ID	nOY1825051444
Page 4	Oil Conservation Division		District RP	1RP-5184
			Facility ID	
			Application ID	pOY1825049902
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OCD Only				
Received by:		Date:		

Page 6

Incident ID	nOY1825051444
District RP	1RP-5184
Facility ID	
Application ID	pOY1825049902

Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.				
A scaled site and sampling diagram as described in 19.15.29.11 NMAC				
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)				
Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)				
Description of remediation activities				
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name:Melodie Sanjari Title:HES Professional Signature: <u>Melodie Sanjari</u> Date:7/10/2023 email:msanjari@marathonoil.com Telephone:575-988-8753				
OCD Only				
Received by:				
Closure Approved by: Date: Date:				
Printed Name:Jocelyn Harimon Title:Environmental Specialist				
V				

APPENDIX B GROUNDWATER DATA

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 (quarters are smalles		=SE) (NAD83 UTM in me	eters)	(In feet)
POD Number	POD Sub- Code basin Cou	Q Q Q unty 64 16 4 Sec Tws	Rng	X Y		Depth Water
C 03932 POD13		E 4 2 3 15 24S	-	3565203 🌍	1146 90	
				Avera	ge Depth to Water	:
					Minimum Depth	:
					Maximum Depth	:
Record Count: 1						

UTMNAD83 Radius Search (in meters):

Easting (X): 644934

Northing (Y): 3566285

Radius: 1500

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.

V



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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater Geographic Area: United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

• 321328103270601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321328103270601 24S.34E.10.42243

Available data for this site Groundwater: Field measurements **v**

Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°13'28", Longitude 103°27'06" NAD27 Land-surface elevation 3,514 feet above NAVD88 The depth of the well is 93 feet below land surface. This well is completed in the Ogallala Formation (1210GLL) local aquifer.

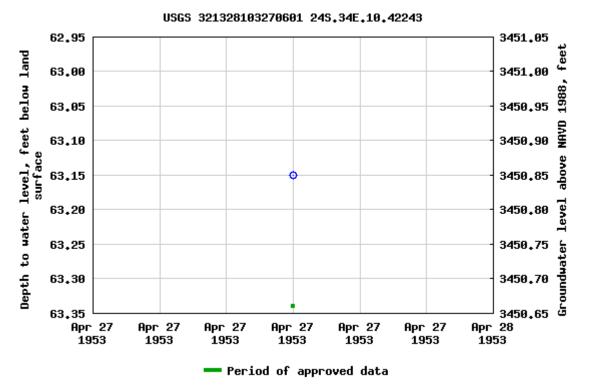
Output formats

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. <u>Download a presentation-quality graph</u>

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

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2018-11-28 12:25:07 EST 1.6 1.17 nadww01

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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater Geographic Area: United States

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

• 321402103275001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321402103275001 24S.34E.10.11212

Available data for this site Groundwater: Field measurements **v**

Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°14'02", Longitude 103°27'50" NAD27 Land-surface elevation 3,536 feet above NAVD88 The depth of the well is 83 feet below land surface. This well is completed in the Ogallala Formation (1210GLL) local aquifer.

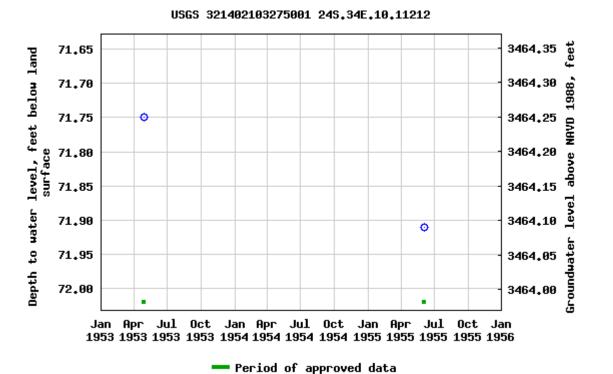
Output formats

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

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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: <u>USGS Water Data Support Team</u> Page Last Modified: 2018-11-28 12:48:35 EST 2.2 1.53 nadww01



APPENDIX C FIELD NOTES SAMPLING PROTOCOL PHOTO DOCUMENTATION



Sampling Protocol

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of fourteen (14) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Sampling Analysis Field Quality Assurance Procedures

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

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

Page 45		5	SMA	Field Screening	eening			
Location Name: Flow masta	J			Date:	10/3/11	20		
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF		Primary Soil Type	Moisture Level	Other Remarks/Notes:
C51-1	9:304	527	21.9]	Li ght Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand - Silt Clay	Dry <u>Moist</u> Wet	
1511-2	4	426	4.10	[Gravel Rock Send Silt Clay	Dry Moist - Wet	
2 - m57	935	308	21.9]		Gravel Rock Sand Silt Clay	Dry Moist Wet	
1	438	.120	21.9	١		Gravel Rock Sand ≁ Silt Clay	Dry Maist Wet	
(Stard S						Gravel Rock Sand Silt Clay	Dry Moist Wet	
65	442	. 84	21.2			Gravel Rock Send Silt Clay	-Dey Moist Wet	
6	945	597	21.5		Light Dark Ten Brown Gray Olive Yellow Red	Gravel Rock Send Silt Clay	Dry Moist- Wet	
//10//2023 9						Gravel Rock Sand Silt Clay	Dry Moist Wet	
y OCD: 7					2	Gravel Rock Sand Silt Clay	Dry Moist Wet	

of 95

Photo Log Photo Taken October 30, 2018 Facing east 32.223419°, -103.462058°



Photo Taken October 31, 2018

Facing North

32.223382°, -103.462022°



APPENDIX D LABORATORY ANALYTICAL REPORTS



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

October 05, 2018

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

OrderNo.: 1809H19

RE: Flowmaster

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/28/2018 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 <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

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1809H19

Date Reported: 10/5/2018

CLIENT: Souder, Miller & Associates Project: Flowmaster		Client Sample ID: L1-0.5 Collection Date: 9/25/2018 9:03:00 AM						
Lab ID: 1809H19-001	Matrix: SOIL		Receiv	ved Dat	e: 9/2	8/2018 8:45:00 AM		
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS						Analyst	: smb	
Chloride	6800	300		mg/Kg	200	10/3/2018 3:33:06 PM	40726	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	: Irm	
Diesel Range Organics (DRO)	3100	97		mg/Kg	10	10/2/2018 1:34:10 PM	40716	
Motor Oil Range Organics (MRO)	2000	490		mg/Kg	10	10/2/2018 1:34:10 PM	40716	
Surr: DNOP	0	50.6-138	S	%Rec	10	10/2/2018 1:34:10 PM	40716	
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst	: NSB	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2018 12:06:56 AM	40661	
Surr: BFB	90.2	15-316		%Rec	1	10/2/2018 12:06:56 AM	40661	
EPA METHOD 8021B: VOLATILES						Analyst	: NSB	
Benzene	ND	0.024		mg/Kg	1	10/2/2018 12:06:56 AM	40661	
Toluene	ND	0.047		mg/Kg	1	10/2/2018 12:06:56 AM	40661	
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2018 12:06:56 AM	40661	
Xylenes, Total	ND	0.094		mg/Kg	1	10/2/2018 12:06:56 AM	40661	
Surr: 4-Bromofluorobenzene	88.1	80-120		%Rec	1	10/2/2018 12:06:56 AM	40661	

- * 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
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Lab Order 1809H19

Date Reported: 10/5/2018

CLIENT: Souder, Miller & Associates Project: Flowmaster	Client Sample ID: L2-0.5 Collection Date: 9/25/2018 9:20:00 AM							
Lab ID: 1809H19-002	Matrix: SOIL	·			8/2018 8:45:00 AM			
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS					Analysi	: smb		
Chloride	18000	750	mg/Kg	500	10/3/2018 3:45:30 PM	40726		
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	t: Irm		
Diesel Range Organics (DRO)	540	9.7	mg/Kg	1	10/2/2018 3:24:13 PM	40716		
Motor Oil Range Organics (MRO)	230	49	mg/Kg	1	10/2/2018 3:24:13 PM	40716		
Surr: DNOP	104	50.6-138	%Rec	1	10/2/2018 3:24:13 PM	40716		
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	: NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/2/2018 1:40:05 AM	40661		
Surr: BFB	91.3	15-316	%Rec	1	10/2/2018 1:40:05 AM	40661		
EPA METHOD 8021B: VOLATILES					Analyst	: NSB		
Benzene	ND	0.024	mg/Kg	1	10/2/2018 1:40:05 AM	40661		
Toluene	ND	0.049	mg/Kg	1	10/2/2018 1:40:05 AM	40661		
Ethylbenzene	ND	0.049	mg/Kg	1	10/2/2018 1:40:05 AM	40661		
Xylenes, Total	ND	0.098	mg/Kg	1	10/2/2018 1:40:05 AM	40661		
Surr: 4-Bromofluorobenzene	88.4	80-120	%Rec	1	10/2/2018 1:40:05 AM	40661		

- * 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1809H19

Date Reported: 10/5/2018

CLIENT: Souder, Miller & Associates Project: Flowmaster			ient Sample II Collection Date		0.5 5/2018 9:30:00 AM	
Lab ID: 1809H19-003	Matrix: SOIL		Received Date	e: 9/2	8/2018 8:45:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: smb
Chloride	2800	150	mg/Kg	100	10/3/2018 3:57:55 PM	40726
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analys	t: Irm
Diesel Range Organics (DRO)	110	9.8	mg/Kg	1	10/2/2018 5:02:03 PM	40716
Motor Oil Range Organics (MRO)	62	49	mg/Kg	1	10/2/2018 5:02:03 PM	40716
Surr: DNOP	104	50.6-138	%Rec	1	10/2/2018 5:02:03 PM	40716
EPA METHOD 8015D: GASOLINE RANG	E				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/2/2018 2:03:25 AM	40661
Surr: BFB	92.5	15-316	%Rec	1	10/2/2018 2:03:25 AM	40661
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.023	mg/Kg	1	10/2/2018 2:03:25 AM	40661
Toluene	ND	0.046	mg/Kg	1	10/2/2018 2:03:25 AM	40661
Ethylbenzene	ND	0.046	mg/Kg	1	10/2/2018 2:03:25 AM	40661
Xylenes, Total	ND	0.092	mg/Kg	1	10/2/2018 2:03:25 AM	40661
Surr: 4-Bromofluorobenzene	89.9	80-120	%Rec	1	10/2/2018 2:03:25 AM	40661

- * 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report
Lab Order 1809H19

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1809H19** Date Reported: **10/5/2018**

CLIENT: Souder, Miller & Associates Project: Flowmaster Lab ID: 1809H19-004	Client Sample ID: L4-0.5 Collection Date: 9/25/2018 9:43:00 AM Matrix: SOIL Received Date: 9/28/2018 8:45:00 AM							
Analyses	Result	PQL	Qual Units		Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS					Analyst:	MRA		
Chloride	1200	30	mg/Kg	20	10/2/2018 12:45:26 PM	40726		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst:	Irm		
Diesel Range Organics (DRO)	270	9.5	mg/Kg	1	10/2/2018 6:15:22 PM	40716		
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/2/2018 6:15:22 PM	40716		
Surr: DNOP	96.9	50.6-138	%Rec	1	10/2/2018 6:15:22 PM	40716		
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst:	NSB		
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/2/2018 2:26:45 AM	40661		
Surr: BFB	89.3	15-316	%Rec	1	10/2/2018 2:26:45 AM	40661		
EPA METHOD 8021B: VOLATILES					Analyst:	NSB		
Benzene	ND	0.023	mg/Kg	1	10/2/2018 2:26:45 AM	40661		
Toluene	ND	0.047	mg/Kg	1	10/2/2018 2:26:45 AM	40661		
Ethylbenzene	ND	0.047	mg/Kg	1	10/2/2018 2:26:45 AM	40661		
Xylenes, Total	ND	0.093	mg/Kg	1	10/2/2018 2:26:45 AM	40661		
Surr: 4-Bromofluorobenzene	87.1	80-120	%Rec	1	10/2/2018 2:26:45 AM	40661		

- * 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 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Project:

Lab ID:

CLIENT: Souder, Miller & Associates

Flowmaster

1809H19-005

Analytical Report

Lab Order 1809H19 Date Reported: 10/5/2018

Client Sample ID: L5-0.5	
Collection Date: 9/25/2018 9:53:00 AM	
Received Date: 9/28/2018 8:45:00 AM	

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS					Analyst	: MRA		
Chloride	4600	300	mg/Kg	200) 10/4/2018 5:11:33 PM	40771		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: Irm		
Diesel Range Organics (DRO)	320	9.7	mg/Kg	1	10/2/2018 7:28:47 PM	40716		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/2/2018 7:28:47 PM	40716		
Surr: DNOP	96.2	50.6-138	%Rec	1	10/2/2018 7:28:47 PM	40716		
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB		
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/2/2018 2:50:07 AM	40661		
Surr: BFB	88.9	15-316	%Rec	1	10/2/2018 2:50:07 AM	40661		
EPA METHOD 8021B: VOLATILES					Analyst	: NSB		
Benzene	ND	0.024	mg/Kg	1	10/2/2018 2:50:07 AM	40661		
Toluene	ND	0.047	mg/Kg	1	10/2/2018 2:50:07 AM	40661		
Ethylbenzene	ND	0.047	mg/Kg	1	10/2/2018 2:50:07 AM	40661		
Xylenes, Total	ND	0.094	mg/Kg	1	10/2/2018 2:50:07 AM	40661		
Surr: 4-Bromofluorobenzene	86.9	80-120	%Rec	1	10/2/2018 2:50:07 AM	40661		

Matrix: SOIL

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

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Project: Flowmaster

CLIENT: Souder, Miller & Associates

Analytical Report
Lab Order 1809H19

Lab Order **1809H19** Date Reported: **10/5/2018**

Client Sample ID: L6-0.5	
Collection Date: 9/25/2018 10:02:00 AM	

110 jeeu 110 windster	Concerton Date: 7/23/2010 10.02.001							
Lab ID: 1809H19-006	Matrix: SOIL	Received Date: 9/28/2018 8:45:00 AM						
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS					Analys	t: MRA		
Chloride	2900	150	mg/Kg	100	10/4/2018 5:48:47 PM	40771		
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analys	t: Irm		
Diesel Range Organics (DRO)	310	9.7	mg/Kg	1	10/2/2018 8:42:11 PM	40716		
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/2/2018 8:42:11 PM	40716		
Surr: DNOP	98.7	50.6-138	%Rec	1	10/2/2018 8:42:11 PM	40716		
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB		
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/2/2018 3:13:24 AM	40661		
Surr: BFB	90.6	15-316	%Rec	1	10/2/2018 3:13:24 AM	40661		
EPA METHOD 8021B: VOLATILES					Analys	t: NSB		
Benzene	ND	0.024	mg/Kg	1	10/2/2018 3:13:24 AM	40661		
Toluene	ND	0.047	mg/Kg	1	10/2/2018 3:13:24 AM	40661		
Ethylbenzene	ND	0.047	mg/Kg	1	10/2/2018 3:13:24 AM	40661		
Xylenes, Total	ND	0.095	mg/Kg	1	10/2/2018 3:13:24 AM	40661		
Surr: 4-Bromofluorobenzene	88.6	80-120	%Rec	1	10/2/2018 3:13:24 AM	40661		

Qualifiers:	
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- * 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 6 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1809H19

Date Reported: 10/5/2018

CLIENT: Souder, Miller & Associates	Client Sample ID: L7-0.5 Collection Date: 9/25/2018 10:12:00 AM						
Project: Flowmaster							
Lab ID: 1809H19-007	Matrix: SOIL	Received Date: 9/28/2018 8:45:00 AM					
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analyst	MRA	
Chloride	6000	300	mg/Kg	200	10/4/2018 6:01:11 PM	40771	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: Irm	
Diesel Range Organics (DRO)	890	9.5	mg/Kg	1	10/2/2018 9:55:41 PM	40716	
Motor Oil Range Organics (MRO)	160	48	mg/Kg	1	10/2/2018 9:55:41 PM	40716	
Surr: DNOP	101	50.6-138	%Rec	1	10/2/2018 9:55:41 PM	40716	
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/2/2018 3:36:41 AM	40661	
Surr: BFB	91.7	15-316	%Rec	1	10/2/2018 3:36:41 AM	40661	
EPA METHOD 8021B: VOLATILES					Analyst	: NSB	
Benzene	ND	0.023	mg/Kg	1	10/2/2018 3:36:41 AM	40661	
Toluene	ND	0.047	mg/Kg	1	10/2/2018 3:36:41 AM	40661	
Ethylbenzene	ND	0.047	mg/Kg	1	10/2/2018 3:36:41 AM	40661	
Xylenes, Total	ND	0.093	mg/Kg	1	10/2/2018 3:36:41 AM	40661	
Surr: 4-Bromofluorobenzene	88.5	80-120	%Rec	1	10/2/2018 3:36:41 AM	40661	

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 7 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

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Client: Project:		ler, Miller & Associates master						
Sample ID	MB-40726	SampType: mblk	Tes	stCode: EPA Method	300.0: Anions			
Client ID:	PBS	Batch ID: 40726		RunNo: 54572				
Prep Date:	10/2/2018	Analysis Date: 10/2/2	018	SeqNo: 1810271	Units: mg/Kg			
Analyte Chloride		Result PQL SPI ND 1.5	K value SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID	LCS-40726	SampType: Ics	Te	stCode: EPA Method	300.0: Anions			
Client ID:	LCSS	Batch ID: 40726		RunNo: 54572				
Prep Date:	10/2/2018	Analysis Date: 10/2/20	018	SeqNo: 1810272	Units: mg/Kg			
Analyte		Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.5	15.00 0	96.8 90	110			
Sample ID	MB-40771	SampType: mblk	Te	stCode: EPA Method	l 300.0: Anions			
Client ID:	PBS	Batch ID: 40771		RunNo: 54611				
Prep Date:	10/3/2018	Analysis Date: 10/3/2	018	SeqNo: 1812102	Units: mg/Kg			
Analyte		Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.5						
Sample ID	ample ID LCS-40771 SampType: Ics TestCode: EPA Method 300.0: Anions							
Client ID:	LCSS	Batch ID: 40771		RunNo: 54611				
Prep Date:	10/3/2018	Analysis Date: 10/3/20	018	SeqNo: 1812103	Units: mg/Kg			
Analyte		Result PQL SPI	K value SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.5	15.00 0	98.6 90	110			

Qualifiers:

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

1809H19

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Client: Souder, Project: Flowma	Miller & A Ister	ssociate	es							
Sample ID LCS-40716	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	n ID: 40	716	F	RunNo: 5	4571				
Prep Date: 10/1/2018	Analysis D	ate: 1	0/2/2018	S	SeqNo: 1	809320	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.7	70	130			
Surr: DNOP	4.8		5.000		95.8	50.6	138			
Sample ID MB-40716	SampT	ype: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	n ID: 40	716	F	RunNo: 5	4571				
Prep Date: 10/1/2018	Analysis D	ate: 1	0/2/2018	S	SeqNo: 1	809321	Units: mg/	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	10		10.00		104	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

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Client: Project:	Souder, Flowma	Miller & As aster	ssociate	es							
Sample ID	MB-40661	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	ID: 40	661	R	unNo: 5	4538				
Prep Date:	9/28/2018	Analysis D	ate: 10	0/1/2018	S	eqNo: 1	808602	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	ND 940	5.0	1000		94.0	15	316			
Sample ID	LCS-40661	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gasc	line Rang	e	
Client ID:	LCSS	Batch	ID: 40	661	R	unNo: 5	4538				
Prep Date:	9/28/2018	Analysis D	ate: 10	0/1/2018	S	eqNo: 1	808603	Units: mg/k	íg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	25 1100	5.0	25.00 1000	0	98.8 106	75.9 15	131 316			

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

1809H19

05-Oct-18

WO#:

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	ler, Miller & A master	Associate	es							
Sample ID MB-40661	Samp	Type: MI	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 40	661	F	RunNo: 5	4538				
Prep Date: 9/28/2018	Analysis [Date: 10	0/1/2018	5	SeqNo: 1	808638	Units: mg/h	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-Bromofluorobenzene	0.92		1.000		91.8	80	120			
Sample ID LCS-40661	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 40	661	F	RunNo: 5	4538				
Prep Date: 9/28/2018	Analysis [Date: 1	0/1/2018	S	SeqNo: 1	808639	Units: mg/k	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.1	77.3	128			
Toluene	0.97	0.050	1.000	0	97.3	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	96.3	80.7	127			
-				_						
Xylenes, Total	2.9	0.10	3.000	0	96.4	81.6	129			

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

1809H19

05-Oct-18

WO#:

Page 11 of 11

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	4901 1 querque FAX: 50	Hawkins NE , NM 87109 5-345-4107	San	nple Log-In C	heck List
Client Name: SMA-CARLSBAD	Work Order Number:	1809H	19		RcptNo:	1
Received By: Erin Melendrez	9/28/2018 8:45:00 AM		Ú	MA	7	
Completed By: Erin Melendrez	9/28/2018 10:46:26 AN	1	Ń	MA	5	
Reviewed By: JC G. 28.18						
LB, <u>ENM9/78/18</u> Chain of Custody						
1. Is Chain of Custody complete?		Yes		No 🗀	Not Present	
2. How was the sample delivered?		Courie	<u>r</u>			
<u>Log In</u> 3. Was an attempt made to cool the samples?		Yes 🖢	1 S	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 🛾	1	No 🗌		`
6. Sufficient sample volume for indicated test(s)?	Yes 🔽	۲ N	lo 🗌		
7. Are samples (except VOA and ONG) properl	y preserved?	Yes 🗹		lo 🗌		. *.
8. Was preservative added to bottles?		Yes 🗌	1	lo 🗹	NA 🗌	د. ن
9. VOA vials have zero headspace?		Yes		lo 🗆	No VOA Vials 🗹	,
10. Were any sample containers received broke	n?	Yes [No 🔽	ſ ·····	
11. Does paperwork match bottle labels?		Yes 🔽		lo 🗌	# of preserved bottles checked for pH:	BLE
(Note discrepancies on chain of custody)	Custodu2	Yes 🔽		lo 🗆	Adjusted?	unless noted)
12. Are matrices correctly identified on Chain of 13. Is it clear what analyses were requested?	Gustody?	Yes ⊻ Yes ▼	-	lo 🗌		
14. Were all holding times able to be met?		Yes V		lo 🗌	Checked by:	
(If no, notify customer for authorization.)						
<u>Special Handling (if applicable)</u>				-		
15. Was client notified of all discrepancies with	his order?	Yes [No 🗆	NA 🗹	
Person Notified:	Date:			angunating minang sarang s		
By Whom:	Via:	eMail	Phone	Fax	In Person	
Regarding:						
Client Instructions:	· · · · · · · · · · · · · · · · · · ·			·	······································	
16. Additional remarks:						
17. <u>Cooler Information</u>						
		eal Date	e Signi	ed By		
1 2.1 Good Yes	S De Dalament dans reconstruit austration de la comme	1. 10.000 M. L. Martin K. M. 1. JAPAN				

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Page 1 of 1

		-				:								Recei
Turn-Around Time:						L			Q	HALL ENVIRONMENTAL		Š		ved i
	FRush 5 day				N N		NIS.		52	ANALYSIS LABORATORY	Ă	N N	5	by OC
Project Name.				8	www.hallenvironmental.com	allen	vironı	nent	al.co	F				D:
Flowmasher		. 49	01 He	4901 Hawkins NE	s NE	- All	nbnq	erque	, NV	- Albuquerque, NM 87109	•			7/10/
roject #:		Ţ	∍l. 50!	Tel. 505-345-3975	-397		Fax 505-345-4107	505-:	45	107				202
						Ana	Analysis Request	Req	lest					39:
Project Manager:			(оя				(["] O	. (_			41:5
Austin NJ.	as and	208) s o seĐ)	W / 0		(SMI	(0.00	S'*Od	PCB's						59 AM
Sampler:			אם ו				' ^z OI	<u>280</u>			_		(
On Ice: X Yes	i No		оя					8 / s		(∀(N 10	
Sample Temperature: 3 , $ - $, $O(CF) = 2$	<u>3.1+1.0(0F)=Z[</u>		(ei					əbi	(\	0/-) V)	
Container Preservative			8910					oitee	40V)	imeč			səldi	
**		BTEX BTEX	8 H9T	трн (и	s'HAc	ARDF	enoinA	9 1808	80928	s) 0228			ir Bub	
	-001		X					3	3	3			/	
	-002	X	X				X							
	-003	Х	X				X							
	-004	Х	X		-		\times							
	-005	Х	X				×							
	-000	X	X				\times							
	-007	×	X				X							
				_					-					
				_			_	•	—					
Received by	Date Time	Remarks:	14	No. Cathen 1.	0	<u> </u>								
	act 1 8ma 11	2		1.81	>	-								

Sample Request ID

Matrix

Time

Date

2-0-27

L3-0.5 5.0- 47 6-5-0.5 6-6.5 L7-0.5

930 943

953 2001

926

1012

21-0-17

Soil

9/25/18 903

Level 4 (Full Validation)

QA/QC Package:

email or Fax#:

Phone #:

□ Other

Accreditation

INELAP

Standard

🗆 EDD (Type)

Chain-of-Custody Record

Client: SMA-Corlshad

Mailing Address:

Released to Imaging: 7/20/2023 1:40:05 PM

to 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. GUNTIEN Date lf hecessary, same

0845

Relinguished by:

Time:

Date:

jed by:

Relinquis

Time:



November 09, 2018

Austin Weyant Souder, Miller & Associates 201 S Halagueno Carlsbad, NM 88221 TEL: (575) 689-7040 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Flowmaster

OrderNo.: 1811090

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/2/2018 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 <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

Surr: DNOP

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

EPA METHOD 8015D: GASOLINE RANGE

Gasoline Range Organics (GRO)

EPA METHOD 8021B: VOLATILES

Surr: 4-Bromofluorobenzene

Analytical Report

11/6/2018 10:17:02 AM 41368

11/6/2018 8:07:27 PM

Analyst: NSB

Analyst: NSB

41357

41357

41357

41357

41357

41357

41357

Hall Environmental Analysis Laboratory. Inc.

Lab Order 1811090 Date Reported: 11/9/2018

					Date Reported. 11/7/20	10
CLIENT: Souder, Miller & Associate	8	Clien	t Sample II	D: CS	W 1	
Project: Flowmaster		Col	lection Dat	e: 10/	/31/2018 9:30:00 AM	
Lab ID: 1811090-001	Matrix: SOIL	Re	ceived Dat	e: 11/	2/2018 9:10:00 AM	
Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: smb
Chloride	630	30	mg/Kg	20	11/6/2018 1:22:06 PM	41381
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analys	t: Irm
Diesel Range Organics (DRO)	81	9.7	mg/Kg	1	11/6/2018 10:17:02 AM	1 41368
Motor Oil Range Organics (MRO)	81	49	mg/Kg	1	11/6/2018 10:17:02 AN	1 41368

50.6-138

73.8-119

0.024

0.049

0.049

0.097

80-120

4.9

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

1

1

1

1

1

1

1

1

117

ND

90.4

ND

ND

ND

ND

103

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

Qualifiers:

- D Sample Diluted Due to Matrix
- Н 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
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

*

Project: Flowmaster

CLIENT: Souder, Miller & Associates

Analytical Report
Lab Order 1811090

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/9/2018 Client Sample ID: CSW 2 Collection Date: 10/31/2018 9:33:00 AM

Lab ID: 1811090-002	Matrix: SOIL		Received Date	e: 11	/2/2018 9:10:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: smb
Chloride	ND	30	mg/Kg	20	11/6/2018 1:34:30 PM	41381
EPA METHOD 8015M/D: DIESEL RANGE	E ORGANICS				Analyst	: Irm
Diesel Range Organics (DRO)	66	9.8	mg/Kg	1	11/6/2018 11:30:11 AM	41368
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/6/2018 11:30:11 AM	41368
Surr: DNOP	116	50.6-138	%Rec	1	11/6/2018 11:30:11 AM	41368
EPA METHOD 8015D: GASOLINE RANG	Ε				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/6/2018 8:30:15 PM	41357
Surr: BFB	88.9	73.8-119	%Rec	1	11/6/2018 8:30:15 PM	41357
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	11/6/2018 8:30:15 PM	41357
Toluene	ND	0.048	mg/Kg	1	11/6/2018 8:30:15 PM	41357
Ethylbenzene	ND	0.048	mg/Kg	1	11/6/2018 8:30:15 PM	41357
Xylenes, Total	ND	0.095	mg/Kg	1	11/6/2018 8:30:15 PM	41357
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/6/2018 8:30:15 PM	41357

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- b Sample Difuted 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 2 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1811090

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/9/2018

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| <b>CLIENT:</b> Souder, Miller & Associates |              | Cl       | ient Sample II | D: CS         | SW 3                  |       |
|--------------------------------------------|--------------|----------|----------------|---------------|-----------------------|-------|
| Project: Flowmaster                        |              | (        | Collection Dat | <b>e:</b> 10, | /31/2018 9:35:00 AM   |       |
| Lab ID: 1811090-003                        | Matrix: SOIL |          | Received Dat   | <b>e:</b> 11, | /2/2018 9:10:00 AM    |       |
| Analyses                                   | Result       | PQL      | Qual Units     | DF            | Date Analyzed         | Batch |
| EPA METHOD 300.0: ANIONS                   |              |          |                |               | Analyst               | : smb |
| Chloride                                   | 130          | 30       | mg/Kg          | 20            | 11/6/2018 1:46:54 PM  | 41381 |
| EPA METHOD 8015M/D: DIESEL RANG            | E ORGANICS   |          |                |               | Analyst               | : Irm |
| Diesel Range Organics (DRO)                | ND           | 9.8      | mg/Kg          | 1             | 11/6/2018 11:54:46 AM | 41368 |
| Motor Oil Range Organics (MRO)             | ND           | 49       | mg/Kg          | 1             | 11/6/2018 11:54:46 AM | 41368 |
| Surr: DNOP                                 | 105          | 50.6-138 | %Rec           | 1             | 11/6/2018 11:54:46 AM | 41368 |
| EPA METHOD 8015D: GASOLINE RAN             | GE           |          |                |               | Analyst               | : NSB |
| Gasoline Range Organics (GRO)              | ND           | 4.6      | mg/Kg          | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| Surr: BFB                                  | 90.4         | 73.8-119 | %Rec           | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| EPA METHOD 8021B: VOLATILES                |              |          |                |               | Analyst               | : NSB |
| Benzene                                    | ND           | 0.023    | mg/Kg          | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| Toluene                                    | ND           | 0.046    | mg/Kg          | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| Ethylbenzene                               | ND           | 0.046    | mg/Kg          | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| Xylenes, Total                             | ND           | 0.091    | mg/Kg          | 1             | 11/6/2018 8:53:01 PM  | 41357 |
| Surr: 4-Bromofluorobenzene                 | 103          | 80-120   | %Rec           | 1             | 11/6/2018 8:53:01 PM  | 41357 |

- \* 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
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1811090

Date Reported: 11/9/2018

| CLIENT: Souder, Miller & Associates |              | Cl       | ient Sample II      | <b>D:</b> CS | SW 4                  |       |
|-------------------------------------|--------------|----------|---------------------|--------------|-----------------------|-------|
| Project: Flowmaster                 |              | (        | Collection Dat      | e: 10        | /31/2018 9:38:00 AM   |       |
| Lab ID: 1811090-004                 | Matrix: SOIL |          | <b>Received Dat</b> | e: 11        | /2/2018 9:10:00 AM    |       |
| Analyses                            | Result       | PQL      | Qual Units          | DF           | Date Analyzed         | Batch |
| EPA METHOD 300.0: ANIONS            |              |          |                     |              | Analyst               | : smb |
| Chloride                            | ND           | 30       | mg/Kg               | 20           | 11/6/2018 2:24:07 PM  | 41381 |
| EPA METHOD 8015M/D: DIESEL RANGE    | ORGANICS     |          |                     |              | Analyst               | : Irm |
| Diesel Range Organics (DRO)         | 11           | 9.7      | mg/Kg               | 1            | 11/6/2018 12:19:11 PM | 41368 |
| Motor Oil Range Organics (MRO)      | ND           | 49       | mg/Kg               | 1            | 11/6/2018 12:19:11 PM | 41368 |
| Surr: DNOP                          | 99.8         | 50.6-138 | %Rec                | 1            | 11/6/2018 12:19:11 PM | 41368 |
| EPA METHOD 8015D: GASOLINE RANGE    |              |          |                     |              | Analyst               | : NSB |
| Gasoline Range Organics (GRO)       | ND           | 4.8      | mg/Kg               | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| Surr: BFB                           | 91.7         | 73.8-119 | %Rec                | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| EPA METHOD 8021B: VOLATILES         |              |          |                     |              | Analyst               | : NSB |
| Benzene                             | ND           | 0.024    | mg/Kg               | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| Toluene                             | ND           | 0.048    | mg/Kg               | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| Ethylbenzene                        | ND           | 0.048    | mg/Kg               | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| Xylenes, Total                      | ND           | 0.096    | mg/Kg               | 1            | 11/6/2018 9:15:46 PM  | 41357 |
| Surr: 4-Bromofluorobenzene          | 104          | 80-120   | %Rec                | 1            | 11/6/2018 9:15:46 PM  | 41357 |

- \* 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Analytical Report
Lab Order 1811090

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/9/2018

| CLIENT: Souder, Miller & Associates | Client Sample ID: CS 1<br>Collection Date: 10/31/2018 9:42:00 AM |                                            |                |    |                       |       |  |  |  |  |  |
|-------------------------------------|------------------------------------------------------------------|--------------------------------------------|----------------|----|-----------------------|-------|--|--|--|--|--|
| Project: Flowmaster                 |                                                                  |                                            |                |    |                       |       |  |  |  |  |  |
| Lab ID: 1811090-005                 | Matrix: SOIL                                                     | <b>Received Date:</b> 11/2/2018 9:10:00 AM |                |    |                       |       |  |  |  |  |  |
| Analyses                            | Result                                                           | PQL                                        | PQL Qual Units |    | DF Date Analyzed      |       |  |  |  |  |  |
| EPA METHOD 300.0: ANIONS            |                                                                  |                                            |                |    | Analyst:              | smb   |  |  |  |  |  |
| Chloride                            | ND                                                               | 30                                         | mg/Kg          | 20 | 11/6/2018 3:01:21 PM  | 41381 |  |  |  |  |  |
| EPA METHOD 8015M/D: DIESEL RANGE    | ORGANICS                                                         |                                            |                |    | Analyst               | Irm   |  |  |  |  |  |
| Diesel Range Organics (DRO)         | ND                                                               | 9.7                                        | mg/Kg          | 1  | 11/6/2018 12:43:43 PM | 41368 |  |  |  |  |  |
| Motor Oil Range Organics (MRO)      | ND                                                               | 48                                         | mg/Kg          | 1  | 11/6/2018 12:43:43 PM | 41368 |  |  |  |  |  |
| Surr: DNOP                          | 96.8                                                             | 50.6-138                                   | %Rec           | 1  | 11/6/2018 12:43:43 PM | 41368 |  |  |  |  |  |
| EPA METHOD 8015D: GASOLINE RANGE    | E                                                                |                                            |                |    | Analyst               | NSB   |  |  |  |  |  |
| Gasoline Range Organics (GRO)       | ND                                                               | 4.7                                        | mg/Kg          | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| Surr: BFB                           | 90.8                                                             | 73.8-119                                   | %Rec           | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| EPA METHOD 8021B: VOLATILES         |                                                                  |                                            |                |    | Analyst               | NSB   |  |  |  |  |  |
| Benzene                             | ND                                                               | 0.024                                      | mg/Kg          | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| Toluene                             | ND                                                               | 0.047                                      | mg/Kg          | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| Ethylbenzene                        | ND                                                               | 0.047                                      | mg/Kg          | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| Xylenes, Total                      | ND                                                               | 0.095                                      | mg/Kg          | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |
| Surr: 4-Bromofluorobenzene          | 103                                                              | 80-120                                     | %Rec           | 1  | 11/6/2018 9:38:33 PM  | 41357 |  |  |  |  |  |

- \* 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
- ND Not Detected at the Reporting
- 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 5 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1811090

Date Reported: 11/9/2018

| CLIENT: Souder, Miller & Associates<br>Project: Flowmaster | Client Sample ID: CS 2<br>Collection Date: 10/31/2018 9:45:00 AM |                    |            |     |                        |         |  |  |  |  |
|------------------------------------------------------------|------------------------------------------------------------------|--------------------|------------|-----|------------------------|---------|--|--|--|--|
| Lab ID: 1811090-006                                        | Matrix: SOIL                                                     | /2/2018 9:10:00 AM |            |     |                        |         |  |  |  |  |
| Analyses                                                   | Result                                                           | PQL                | Qual Units | DF  | Date Analyzed          | Batch   |  |  |  |  |
| EPA METHOD 300.0: ANIONS                                   |                                                                  |                    |            |     | Analys                 | t: smb  |  |  |  |  |
| Chloride                                                   | 5500                                                             | 300                | mg/Kg      | 200 | ) 11/8/2018 6:53:22 PM | 41381   |  |  |  |  |
| EPA METHOD 8015M/D: DIESEL RANGE                           | ORGANICS                                                         |                    |            |     | Analys                 | t: Irm  |  |  |  |  |
| Diesel Range Organics (DRO)                                | 21                                                               | 9.8                | mg/Kg      | 1   | 11/6/2018 1:08:09 PM   | 41368   |  |  |  |  |
| Motor Oil Range Organics (MRO)                             | ND                                                               | 49                 | mg/Kg      | 1   | 11/6/2018 1:08:09 PM   | 41368   |  |  |  |  |
| Surr: DNOP                                                 | 97.7                                                             | 50.6-138           | %Rec       | 1   | 11/6/2018 1:08:09 PM   | 41368   |  |  |  |  |
| EPA METHOD 8015D: GASOLINE RANGE                           | E                                                                |                    |            |     | Analys                 | t: NSB  |  |  |  |  |
| Gasoline Range Organics (GRO)                              | ND                                                               | 4.9                | mg/Kg      | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| Surr: BFB                                                  | 94.7                                                             | 73.8-119           | %Rec       | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| EPA METHOD 8021B: VOLATILES                                |                                                                  |                    |            |     | Analys                 | t: NSB  |  |  |  |  |
| Benzene                                                    | ND                                                               | 0.024              | mg/Kg      | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| Toluene                                                    | ND                                                               | 0.049              | mg/Kg      | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| Ethylbenzene                                               | ND                                                               | 0.049              | mg/Kg      | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| Xylenes, Total                                             | ND                                                               | 0.097              | mg/Kg      | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |
| Surr: 4-Bromofluorobenzene                                 | 106                                                              | 80-120             | %Rec       | 1   | 11/6/2018 10:01:15 PM  | 1 41357 |  |  |  |  |

- \* 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
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 11 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

| Client:<br>Project: |           | ler, Miller & As<br>master                                                                                     | ssociate      | es        |             |           |           |              |      |          |      |
|---------------------|-----------|----------------------------------------------------------------------------------------------------------------|---------------|-----------|-------------|-----------|-----------|--------------|------|----------|------|
| Sample ID           | MB-41381  | SampT                                                                                                          | ype: MI       | BLK       | Tes         | tCode: EF | PA Method | 300.0: Anion | S    |          |      |
| Client ID:          | PBS       | Batch                                                                                                          | ID: 41        | 381       | F           | RunNo: 5  | 5430      |              |      |          |      |
| Prep Date:          | 11/6/2018 | Analysis D                                                                                                     | ate: 1        | 1/6/2018  | S           | SeqNo: 18 | 846319    | Units: mg/K  | (g   |          |      |
| Analyte<br>Chloride |           | Result<br>ND                                                                                                   | PQL<br>1.5    | SPK value | SPK Ref Val | %REC      | LowLimit  | HighLimit    | %RPD | RPDLimit | Qual |
|                     | LCS-41381 | SampTy                                                                                                         |               | s         | Tes         | tCode: EF | PA Method | 300.0: Anion | s    |          |      |
| Client ID:          | LCSS      | • •                                                                                                            | ID: <b>41</b> |           | F           | RunNo: 5  | 5430      |              |      |          |      |
| Prep Date:          | 11/6/2018 | 11/6/2018         Analysis Date:         11/6/2018         SeqNo:         1846320         Units:         mg/Kg |               |           |             |           |           |              | (g   |          |      |
| Analyte             |           | Result                                                                                                         | PQL           | SPK value | SPK Ref Val | %REC      | LowLimit  | HighLimit    | %RPD | RPDLimit | Qual |
| Chloride            |           | 14                                                                                                             | 1.5           | 15.00     | 0           | 95.7      | 90        | 110          |      |          |      |

#### **Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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| Client:                      |                                     | Miller & As | sociate         | es             |                                                                     |                     |            |                     |           |            |      |  |
|------------------------------|-------------------------------------|-------------|-----------------|----------------|---------------------------------------------------------------------|---------------------|------------|---------------------|-----------|------------|------|--|
| Project:                     | Flowmas                             | ter         |                 |                |                                                                     |                     |            |                     |           |            |      |  |
| Sample ID                    | LCS-41368                           | SampTy      | pe: LC          | s              | Tes                                                                 | tCode: El           | PA Method  | 8015M/D: Di         | esel Rang | e Organics |      |  |
| Client ID:                   | LCSS                                | Batch       | ID: <b>41</b>   | 368            | F                                                                   | RunNo: <b>55425</b> |            |                     |           |            |      |  |
| Prep Date:                   | 11/5/2018                           | Analysis Da | ate: 11         | 1/6/2018       | S                                                                   | SeqNo: 1            | 844297     | Units: mg/k         | ٢g        |            |      |  |
| Analyte                      |                                     | Result      | PQL             | SPK value      | SPK Ref Val                                                         | %REC                | LowLimit   | HighLimit           | %RPD      | RPDLimit   | Qual |  |
| Diesel Range C<br>Surr: DNOP | Organics (DRO)                      | 48          | 10              | 50.00<br>5.000 | 0                                                                   | 95.6                | 70<br>50.6 | 130                 |           |            |      |  |
| Sull: DNOP                   |                                     | 4.2         |                 | 5.000          |                                                                     | 84.1                | 50.6       | 138                 |           |            |      |  |
| Sample ID                    |                                     | SampTy      |                 |                | Tes                                                                 | tCode: El           | PA Method  | 8015M/D: Di         | esel Rang | e Organics |      |  |
| Client ID:                   | -                                   |             | ID: <b>41</b> : |                |                                                                     | RunNo: 5            |            |                     |           |            |      |  |
| Prep Date:                   | 11/5/2018                           | Analysis Da | ate: 11         | 1/6/2018       | S                                                                   | SeqNo: 1            | 844298     | Units: mg/k         | ٢g        |            |      |  |
| Analyte                      |                                     | Result      | PQL             | SPK value      | SPK Ref Val                                                         | %REC                | LowLimit   | HighLimit           | %RPD      | RPDLimit   | Qual |  |
| •                            | Organics (DRO)<br>je Organics (MRO) | ND<br>ND    | 10<br>50        |                |                                                                     |                     |            |                     |           |            |      |  |
| Surr: DNOP                   | -                                   | 10          |                 | 10.00          |                                                                     | 105                 | 50.6       | 138                 |           |            |      |  |
| Sample ID                    | 1811090-001AMS                      | SampTy      | pe: MS          | 3              | Tes                                                                 | tCode: El           | PA Method  | 8015M/D: Di         | esel Rang | e Organics |      |  |
| Client ID:                   |                                     |             | ID: 41          |                | TestCode: EPA Method 8015M/D: Diesel Range Organics<br>RunNo: 55425 |                     |            |                     |           |            |      |  |
| Prep Date:                   | 11/5/2018                           | Analysis Da | ate: 11         | 1/6/2018       | S                                                                   | SeqNo: 1            | 844300     | Units: <b>mg/Kg</b> |           |            |      |  |
| Analyte                      |                                     | Result      | PQL             | SPK value      | SPK Ref Val                                                         | %REC                | LowLimit   | HighLimit           | %RPD      | RPDLimit   | Qual |  |
| ,                            | Organics (DRO)                      | 170         | 9.8             | 49.16          | 81.50                                                               | 176                 | 53.5       | 126                 |           |            | S    |  |
| Surr: DNOP                   |                                     | 7.3         |                 | 4.916          |                                                                     | 148                 | 50.6       | 138                 |           |            | S    |  |
| Sample ID                    | 1811090-001AMS                      | D SampTy    | pe: <b>MS</b>   | SD             | Tes                                                                 | tCode: El           | PA Method  | 8015M/D: Di         | esel Rang | e Organics |      |  |
| Client ID:                   | CSW 1                               | Batch       | ID: <b>41</b>   | 368            | RunNo: <b>55425</b>                                                 |                     |            |                     |           |            |      |  |
| Prep Date:                   | 11/5/2018                           | Analysis Da | ate: 11         | 1/6/2018       | SeqNo: 1844301                                                      |                     |            | Units: mg/Kg        |           |            |      |  |
| Analyte                      |                                     | Result      | PQL             | SPK value      | SPK Ref Val                                                         | %REC                | LowLimit   | HighLimit           | %RPD      | RPDLimit   | Qual |  |
| -                            | Organics (DRO)                      | 120         | 9.9             | 49.41          | 81.50                                                               | 70.0                | 53.5       | 126                 | 36.5      | 21.7       | R    |  |
| Surr: DNOP                   |                                     | 5.9         |                 | 4.941          |                                                                     | 119                 | 50.6       | 138                 | 0         | 0          |      |  |
| Sample ID                    | LCS-41389                           | SampTy      | pe: LC          | s              | TestCode: EPA Method 8015M/D: Diesel Range Organics                 |                     |            |                     |           |            |      |  |
| Client ID:                   | LCSS                                | Batch       | ID: <b>41</b>   | 389            | RunNo: <b>55460</b>                                                 |                     |            |                     |           |            |      |  |
| Prep Date:                   | 11/6/2018                           | Analysis Da | ate: 11         | 1/7/2018       | S                                                                   | SeqNo: 1            | 846173     | Units: %Re          | с         |            |      |  |
| Analyte                      |                                     | Result      | PQL             |                | SPK Ref Val                                                         |                     | LowLimit   | HighLimit           | %RPD      | RPDLimit   | Qual |  |
| Surr: DNOP                   |                                     | 5.3         |                 | 5.000          |                                                                     | 106                 | 50.6       | 138                 |           |            |      |  |
| Sample ID                    | MB-41389                            | SampTy      | pe: ME          | BLK            | Tes                                                                 | tCode: El           | PA Method  | 8015M/D: Di         | esel Rang | e Organics |      |  |
| Client ID:                   | PBS                                 | Batch       | ID: <b>41</b>   | 389            | F                                                                   | RunNo: 5            | 5460       |                     |           |            |      |  |
|                              |                                     |             |                 |                |                                                                     | San Maria           | 040474     | Units: %Re          | •         |            |      |  |
| Prep Date:                   | 11/6/2018                           | Analysis Da | ate: 11         | 1/7/2018       | 5                                                                   | SeqNo: 1            | 846174     | Units. %Re          | 6         |            |      |  |

#### **Qualifiers:**

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- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
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- 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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| Client:    | Soud      | ler, Miller & A | ssociat  | es        |                |           |           |              |           |            |      |
|------------|-----------|-----------------|----------|-----------|----------------|-----------|-----------|--------------|-----------|------------|------|
| Project:   | Flow      | rmaster         |          |           |                |           |           |              |           |            |      |
| Sample ID  | MB-41389  | SampT           | уре: М   | BLK       | Tes            | tCode: El | PA Method | 8015M/D: Die | esel Rang | e Organics |      |
| Client ID: | PBS       | Batch           | h ID: 41 | 389       | F              | RunNo: 5  | 5460      |              |           |            |      |
| Prep Date: | 11/6/2018 | Analysis D      | Date: 1  | 1/7/2018  | SeqNo: 1846174 |           |           | Units: %Red  | •         |            |      |
| Analyte    |           | Result          | PQL      | SPK value | SPK Ref Val    | %REC      | LowLimit  | HighLimit    | %RPD      | RPDLimit   | Qual |
| Surr: DNOP |           | 12              |          | 10.00     |                | 115       | 50.6      | 138          |           |            |      |

#### **Qualifiers:**

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

| Client:<br>Project:        | Souder, N<br>Flowmas | Ailler & As<br>ter | sociate          | 28        |             |          |           |             |            |          |      |
|----------------------------|----------------------|--------------------|------------------|-----------|-------------|----------|-----------|-------------|------------|----------|------|
| Sample ID                  | MB-41357             | SampTy             | pe: ME           | BLK       | Tes         | tCode: E | PA Method | 8015D: Gaso | oline Rang | e        |      |
| Client ID:                 | PBS                  | Batch              | ID: 41           | 357       | R           | anNo: 5  | 5429      |             |            |          |      |
| Prep Date:                 | 11/5/2018            | Analysis Da        | ate: <b>1</b> '  | 1/6/2018  | S           | SeqNo: 1 | 845135    | Units: mg/k | ٢g         |          |      |
| Analyte                    |                      | Result             | PQL              | SPK value | SPK Ref Val | %REC     | LowLimit  | HighLimit   | %RPD       | RPDLimit | Qual |
| Gasoline Ranç<br>Surr: BFB | e Organics (GRO)     | ND<br>920          | 5.0              | 1000      |             | 92.1     | 73.8      | 119         |            |          |      |
| Sample ID                  | LCS-41357            | SampTy             | pe: LC           | s         | Tes         | tCode: E | PA Method | 8015D: Gaso | line Rang  | e        |      |
| Client ID:                 | LCSS                 | Batch              | ID: 41           | 357       | R           | lunNo: 5 | 5429      |             |            |          |      |
| Prep Date:                 | 11/5/2018            | Analysis Da        | ate: <b>1</b> *  | 1/6/2018  | S           | SeqNo: 1 | 845136    | Units: mg/k | ٢g         |          |      |
| Analyte                    |                      | Result             | PQL              | SPK value | SPK Ref Val | %REC     | LowLimit  | HighLimit   | %RPD       | RPDLimit | Qual |
|                            | je Organics (GRO)    | 26                 | 5.0              | 25.00     | 0           | 105      | 80.1      | 123         |            |          |      |
| Surr: BFB                  |                      | 1100               |                  | 1000      |             | 110      | 73.8      | 119         |            |          |      |
| Sample ID                  | 1811090-001AMS       | SampTy             | /pe: <b>M</b> \$ | 6         | Tes         | tCode: E | PA Method | 8015D: Gaso | line Rang  | e        |      |
| Client ID:                 | CSW 1                | Batch              | ID: 41           | 357       | R           | anNo: 5  | 5429      |             |            |          |      |
| Prep Date:                 | 11/5/2018            | Analysis Da        | ate: <b>1</b> '  | 1/6/2018  | S           | SeqNo: 1 | 845138    | Units: mg/k | ٢g         |          |      |
| Analyte                    |                      | Result             | PQL              | SPK value | SPK Ref Val | %REC     | LowLimit  | HighLimit   | %RPD       | RPDLimit | Qual |
| Gasoline Rang              | je Organics (GRO)    | 28                 | 5.0              | 24.88     | 0           | 114      | 77.8      | 128         |            |          |      |
| Surr: BFB                  |                      | 1000               |                  | 995.0     |             | 104      | 73.8      | 119         |            |          |      |
| Sample ID                  | 1811090-001AMSI      | D SampTy           | /pe: <b>M\$</b>  | SD        | Tes         | tCode: E | PA Method | 8015D: Gaso | line Rang  | e        |      |
| Client ID:                 | CSW 1                | Batch              | ID: 41           | 357       | R           | anNo: 5  | 5429      |             |            |          |      |
| Prep Date:                 | 11/5/2018            | Analysis Da        | ate: <b>1</b> ′  | 1/6/2018  | S           | SeqNo: 1 | 845139    | Units: mg/k | ٤g         |          |      |
| Analyte                    |                      | Result             | PQL              | SPK value | SPK Ref Val | %REC     | LowLimit  | HighLimit   | %RPD       | RPDLimit | Qual |
| Gasoline Rang              | je Organics (GRO)    | 26                 | 4.8              | 23.88     | 0           | 111      | 77.8      | 128         | 6.59       | 20       |      |
|                            |                      |                    |                  |           |             |          |           | 119         |            |          |      |

#### **Qualifiers:**

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- W Sample container temperature is out of limit as specified

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

| Client:<br>Project:                                                                                                                                                     | Souder, N<br>Flowmast                                                 |                                                                                                                 | Associate                                                                                                        | S                                                                                                                                                |                                                                                         |                                                                                                                       |                                                                                                           |                                                                                                        |                                     |                      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------|------|
| Sample ID                                                                                                                                                               | MB-41357                                                              | Samp                                                                                                            | Туре: МЕ                                                                                                         | BLK                                                                                                                                              | Tes                                                                                     | tCode: El                                                                                                             | PA Method                                                                                                 | 8021B: Vola                                                                                            | tiles                               |                      |      |
| Client ID:                                                                                                                                                              | PBS                                                                   | Batc                                                                                                            | h ID: <b>41</b>                                                                                                  | 357                                                                                                                                              | F                                                                                       | unNo: 5                                                                                                               | 5429                                                                                                      |                                                                                                        |                                     |                      |      |
| Prep Date:                                                                                                                                                              | 11/5/2018                                                             | Analysis [                                                                                                      | Date: 11                                                                                                         | /6/2018                                                                                                                                          | S                                                                                       | SeqNo: 1                                                                                                              | 845160                                                                                                    | 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                                                       | 0.99                                                                                                            |                                                                                                                  | 1.000                                                                                                                                            |                                                                                         | 99.0                                                                                                                  | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Sample ID                                                                                                                                                               | LCS-41357                                                             | Samp <sup>-</sup>                                                                                               | Type: LC                                                                                                         | S                                                                                                                                                | Tes                                                                                     | tCode: El                                                                                                             | PA Method                                                                                                 | 8021B: Vola                                                                                            | tiles                               |                      |      |
| Client ID:                                                                                                                                                              | LCSS                                                                  | Batc                                                                                                            | h ID: <b>41</b>                                                                                                  | 357                                                                                                                                              | F                                                                                       | anNo: 5                                                                                                               | 5429                                                                                                      |                                                                                                        |                                     |                      |      |
| Prep Date:                                                                                                                                                              | 11/5/2018                                                             | Analysis [                                                                                                      | Date: <b>1</b> 1                                                                                                 | /6/2018                                                                                                                                          | 5                                                                                       | SeqNo: 1                                                                                                              | 845161                                                                                                    | Units: mg/h                                                                                            | ٢g                                  |                      |      |
| Analyte                                                                                                                                                                 |                                                                       | Result                                                                                                          | PQL                                                                                                              | SPK value                                                                                                                                        | SPK Ref Val                                                                             | %REC                                                                                                                  | LowLimit                                                                                                  | HighLimit                                                                                              | %RPD                                | RPDLimit             | Qual |
| Benzene                                                                                                                                                                 |                                                                       | 0.97                                                                                                            | 0.025                                                                                                            | 1.000                                                                                                                                            | 0                                                                                       | 97.3                                                                                                                  | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Toluene                                                                                                                                                                 |                                                                       | 0.99                                                                                                            | 0.050                                                                                                            | 1.000                                                                                                                                            | 0                                                                                       | 98.6                                                                                                                  | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Ethylbenzene                                                                                                                                                            |                                                                       | 0.98                                                                                                            | 0.050                                                                                                            | 1.000                                                                                                                                            | 0                                                                                       | 97.5                                                                                                                  | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Xylenes, Total                                                                                                                                                          |                                                                       | 2.9                                                                                                             | 0.10                                                                                                             | 3.000                                                                                                                                            | 0                                                                                       | 96.8                                                                                                                  | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Surr: 4-Brom                                                                                                                                                            | nofluorobenzene                                                       | 1.0                                                                                                             |                                                                                                                  | 1.000                                                                                                                                            |                                                                                         | 102                                                                                                                   | 80                                                                                                        | 120                                                                                                    |                                     |                      |      |
| Sample ID                                                                                                                                                               | 1811090-002AMS                                                        | Samp                                                                                                            | Туре: М                                                                                                          | 5                                                                                                                                                | Tes                                                                                     | tCode: El                                                                                                             | PA Method                                                                                                 | 8021B: Vola                                                                                            | tiles                               |                      |      |
| -                                                                                                                                                                       |                                                                       |                                                                                                                 |                                                                                                                  |                                                                                                                                                  |                                                                                         |                                                                                                                       |                                                                                                           |                                                                                                        |                                     |                      |      |
| Client ID:                                                                                                                                                              | CSW 2                                                                 | Batc                                                                                                            | h ID: <b>41</b>                                                                                                  | 357                                                                                                                                              | F                                                                                       | anNo: 5                                                                                                               | 5429                                                                                                      |                                                                                                        |                                     |                      |      |
| Client ID:<br>Prep Date:                                                                                                                                                |                                                                       | Batc<br>Analysis [                                                                                              |                                                                                                                  |                                                                                                                                                  |                                                                                         | tunNo: <b>5</b><br>SeqNo: <b>1</b>                                                                                    |                                                                                                           | Units: <b>mg/k</b>                                                                                     | ٨g                                  |                      |      |
|                                                                                                                                                                         |                                                                       |                                                                                                                 |                                                                                                                  | /6/2018                                                                                                                                          |                                                                                         |                                                                                                                       |                                                                                                           | Units: <b>mg/F</b><br>HighLimit                                                                        | <b>(g</b><br>%RPD                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte                                                                                                                                                   |                                                                       | Analysis [                                                                                                      | Date: 11                                                                                                         | /6/2018                                                                                                                                          | S                                                                                       | SeqNo: 1                                                                                                              | 845176                                                                                                    | •                                                                                                      | •                                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene                                                                                                                                        |                                                                       | Analysis [<br>Result                                                                                            | Date: 11<br>PQL                                                                                                  | 1 <b>/6/2018</b><br>SPK value                                                                                                                    | SPK Ref Val                                                                             | eqNo: 1<br>%REC                                                                                                       | 845176<br>LowLimit                                                                                        | HighLimit                                                                                              | •                                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene                                                                                                                             |                                                                       | Analysis I<br>Result<br>1.1                                                                                     | Date: <b>1</b> 1<br>PQL<br>0.024                                                                                 | 1 <b>/6/2018</b><br>SPK value<br>0.9709                                                                                                          | SPK Ref Val<br>0.004430                                                                 | SeqNo: 1<br>%REC<br>112                                                                                               | 845176<br>LowLimit<br>68.5                                                                                | HighLimit<br>133                                                                                       | •                                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene                                                                                                             | 11/5/2018                                                             | Analysis I<br>Result<br>1.1<br>1.1                                                                              | Date: <b>1</b> 1<br>PQL<br>0.024<br>0.049                                                                        | <b>SPK value</b><br>0.9709<br>0.9709                                                                                                             | SPK Ref Val<br>0.004430<br>0                                                            | SeqNo: 18<br><u>%REC</u><br>112<br>115                                                                                | 845176<br>LowLimit<br>68.5<br>75                                                                          | HighLimit<br>133<br>130                                                                                | •                                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total                                                                                           | 11/5/2018                                                             | Analysis I<br>Result<br>1.1<br>1.1<br>1.1                                                                       | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049                                                                       | <b>SPK value</b><br>0.9709<br>0.9709<br>0.9709<br>0.9709                                                                                         | SPK Ref Val<br>0.004430<br>0<br>0                                                       | 6eqNo: 1<br>%REC<br>112<br>115<br>117                                                                                 | 845176<br>LowLimit<br>68.5<br>75<br>79.4                                                                  | HighLimit<br>133<br>130<br>128                                                                         | •                                   | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom                                                                           | 11/5/2018                                                             | Analysis I<br><u>Result</u><br>1.1<br>1.1<br>1.1<br>3.4<br>1.1                                                  | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049                                                                       | /6/2018<br>SPK value<br>0.9709<br>0.9709<br>0.9709<br>2.913<br>0.9709                                                                            | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0                                             | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>115<br>112                                                            | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80                                                    | HighLimit<br>133<br>130<br>128<br>131                                                                  | %RPD                                | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID                                                              | 11/5/2018                                                             | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>0 Samp                                               | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097                                                              | /6/2018<br>SPK value<br>0.9709<br>0.9709<br>0.9709<br>2.913<br>0.9709                                                                            | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes                                      | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>115<br>112                                                            | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method                                       | HighLimit<br>133<br>130<br>128<br>131<br>120                                                           | %RPD                                | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID                                                              | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2              | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>0 Samp                                               | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41                                      | SPK value         0.9709         0.9709         0.9709         0.9709         2.913         0.9709         357                                   | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>0<br>Tes<br>F                            | GeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>112<br>tCode: <b>E</b>                                                | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method<br>5429                               | HighLimit<br>133<br>130<br>128<br>131<br>120                                                           | %RPD                                | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID<br>Client ID:                                                | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2              | Analysis I<br><u>Result</u><br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br><b>D</b> Samp <sup>-</sup><br>Batc            | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41                                      | <pre>//6/2018 SPK value 0.9709 0.9709 2.913 0.9709 355 //6/2018</pre>                                                                            | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes<br>F<br>SPK Ref Val                  | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>112<br>tCode: EI                                                      | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method<br>5429                               | HighLimit<br>133<br>130<br>128<br>131<br>120<br>8021B: Vola                                            | %RPD                                | RPDLimit             | Qual |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID<br>Client ID:<br>Prep Date:                                  | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2              | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>O Samp <sup>-</sup><br>Batc<br>Analysis I            | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41:<br>Date: 11                         | <pre>//6/2018 SPK value 0.9709 0.9709 2.913 0.9709 355 //6/2018</pre>                                                                            | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes<br>F                                 | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>112<br>tCode: EI<br>cunNo: 5<br>SeqNo: 1                              | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method<br>5429<br>845177                     | HighLimit<br>133<br>130<br>128<br>131<br>120<br>8021B: Volar<br>Units: mg/k                            | %RPD<br>tiles                       |                      |      |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID<br>Client ID:<br>Prep Date:<br>Analyte                       | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2              | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>D Samp<br>Batc<br>Analysis I<br>Result               | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41:<br>Date: 11<br>PQL                  | //6/2018<br>SPK value<br>0.9709<br>0.9709<br>2.913<br>0.9709<br>2.913<br>0.9709<br>357<br>1/6/2018<br>SPK value                                  | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes<br>F<br>SPK Ref Val                  | GeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>112<br>tCode: El<br>RunNo: 5<br>GeqNo: 1<br>%REC                      | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method<br>5429<br>845177<br>LowLimit         | HighLimit<br>133<br>130<br>128<br>131<br>120<br>8021B: Vola<br>Units: mg/P<br>HighLimit                | %RPD<br>tiles<br>{g<br>%RPD         | RPDLimit             |      |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID<br>Client ID:<br>Prep Date:<br>Analyte<br>Benzene            | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2              | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>O Samp<br>Batc<br>Analysis I<br>Result<br>1.0        | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41:<br>Date: 11<br>PQL<br>0.025         | //6/2018<br>SPK value<br>0.9709<br>0.9709<br>2.913<br>0.9709<br>350<br>357<br>//6/2018<br>SPK value<br>0.9814                                    | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes<br>F<br>SPK Ref Val<br>0.004430      | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>117<br>115<br>112<br>tCode: El<br>&unNo: 5<br>SeqNo: 1<br>%REC<br>106 | 845176<br>LowLimit<br>68.5<br>75<br>79.4<br>77.3<br>80<br>PA Method<br>5429<br>845177<br>LowLimit<br>68.5 | HighLimit<br>133<br>130<br>128<br>131<br>120<br>8021B: Volar<br>Units: mg/H<br>HighLimit<br>133        | %RPD<br>tiles<br>(g<br>3.66         | RPDLimit<br>20       |      |
| Prep Date:<br>Analyte<br>Benzene<br>Toluene<br>Ethylbenzene<br>Xylenes, Total<br>Surr: 4-Brom<br>Sample ID<br>Client ID:<br>Prep Date:<br>Analyte<br>Benzene<br>Toluene | 11/5/2018<br>nofluorobenzene<br>1811090-002AMSE<br>CSW 2<br>11/5/2018 | Analysis I<br>Result<br>1.1<br>1.1<br>1.1<br>3.4<br>1.1<br>D Samp<br>Batc<br>Analysis I<br>Result<br>1.0<br>1.1 | Date: 11<br>PQL<br>0.024<br>0.049<br>0.049<br>0.097<br>Type: MS<br>h ID: 41<br>Date: 11<br>PQL<br>0.025<br>0.049 | //6/2018<br>SPK value<br>0.9709<br>0.9709<br>2.913<br>0.9709<br>357<br>357<br>357<br>360<br>357<br>357<br>357<br>357<br>357<br>357<br>357<br>357 | SPK Ref Val<br>0.004430<br>0<br>0<br>0<br>0<br>Tes<br>F<br>SPK Ref Val<br>0.004430<br>0 | SeqNo: 1<br>%REC<br>112<br>115<br>117<br>115<br>112<br>tCode: El<br>cunNo: 5<br>SeqNo: 1<br>%REC<br>106<br>111        | 845176<br>LowLimit<br>68.5<br>79.4<br>77.3<br>80<br>PA Method<br>5429<br>845177<br>LowLimit<br>68.5<br>75 | HighLimit<br>133<br>130<br>128<br>131<br>120<br>8021B: Volar<br>Units: mg/F<br>HighLimit<br>133<br>130 | %RPD<br>tiles<br>(g<br>3.66<br>3.07 | RPDLimit<br>20<br>20 |      |

#### **Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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

1811090

09-Nov-18

WO#:

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| ANALYSIS<br>LABORATORY                                                                               | Albu<br>TEL: 505-345-3975 :<br>Website: www.hal | querq<br>FAX: |              | 109<br>107 | San   | nple Log-In Check List             | _  |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------|--------------|------------|-------|------------------------------------|----|
| Client Name: SMA-CARLSBAD                                                                            | Nork Order Number:                              | 1811          | 090          |            |       | RcptNo: 1                          |    |
| Received By: Victoria Zellar 11/                                                                     | 2/2018 9:10:00 AM                               |               |              | Victor     | ia Gl | lan                                |    |
| Completed By: Erin Melendrez 11/<br>Reviewed By: JAB 11/02/18                                        | 2/2018 11:15:03 AM                              |               |              | Victoria   | NA    | 5                                  |    |
| LB: DAD 11/02/18<br>Chain of Custody                                                                 |                                                 |               |              |            |       |                                    |    |
| 1. Is Chain of Custody complete?                                                                     |                                                 | Yes           |              | No         |       | Not Present                        |    |
| 2. How was the sample delivered?                                                                     |                                                 | Cour          | ier          |            |       |                                    |    |
| 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           | V            | No         |       |                                    |    |
| 5. Sample(s) in proper container(s)?                                                                 |                                                 | Yes           | •            | No         |       |                                    |    |
| 6. Sufficient sample volume for indicated test(s)?                                                   |                                                 | Yes           |              | No         |       |                                    |    |
| 7, Are samples (except VCA and ONG) properly pre                                                     | served?                                         | Yes           | V            | 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         |       | # of preserved<br>bottles checked  |    |
| <ol> <li>Does paperwork match bottle labels?<br/>(Note discrepancies on chain of custody)</li> </ol> | ii.                                             | Yes           | V            | No         |       | for pH:<br>(<2 or >12 unless noted | J) |
| 12. Are matrices correctly identified on Chain of Custo                                              | ody?                                            | Yes           | ~            | No         |       | Adjusted?                          |    |
| 13. Is it clear what analyses were requested?                                                        |                                                 | Yes           | $\checkmark$ | No         |       |                                    |    |
| 14. Were all holding times able to be met?<br>(If no, notify customer for authorization.)            | 8                                               | Yes           |              | No         |       | Checked by: 11/02/18 DA            | D  |
| Special Handling (if applicable)                                                                     |                                                 |               |              |            |       | e                                  |    |
| 15. Was client notified of all discrepancies with this o                                             | rder?                                           | Yes           |              | No         |       | NA 🗹                               |    |
| Person Notified:                                                                                     | Date:                                           | 0.005         |              |            |       |                                    |    |
| By Whom:                                                                                             | Via:                                            | ] eMa         | ail 🗌 Pl     | none 🗌     | Fax   | In Person                          |    |
| Regarding:                                                                                           |                                                 | -             |              |            |       |                                    |    |
| Client Instructions:                                                                                 |                                                 |               |              |            |       |                                    |    |
| 16. Additional remarks:                                                                              |                                                 |               |              |            |       |                                    |    |

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 3.4     | Good      | Yes         |         |           |           |
| 2         | 2.1     | Good      | Yes         |         |           |           |

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| standard ZRush 5 du<br>ect Name:<br>Flow Musher<br>et #:<br>et #:<br>et #:<br>bet Manager:<br>et #:<br>bet Ves No<br>colers: 2 4 2.1<br>et Tempinetuding cF: 3 4 2.1<br>and # Type<br>and # Type Preservative BILDO<br>2 - 002<br>0 - 002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unain-or-Custody Record | stouy record              |                     |                                  |           |        |         |         |          |         |           | TIM DATE NO |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------|---------------------|----------------------------------|-----------|--------|---------|---------|----------|---------|-----------|-------------|----|
| Monthalise     Monthalise       Image: rest of the res                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | (A                        | □ Standard          | Rush                             | 5 day     |        | U       | A N     | PF:      | SIS     | ILAB      | ORATO       | AL |
| Curl Jund     Follow Mutder       Project #     4901 Hawkins KE       Project #     Fall Validation       Project #     1       Project Manager:     1 </td <td></td> <td></td> <td>Project Name</td> <td></td> <td></td> <td></td> <td></td> <td>www.</td> <td>v.halle</td> <td>viron</td> <td>nental co</td> <td>ε</td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                           | Project Name        |                                  |           |        |         | www.    | v.halle  | viron   | nental co | ε           |    |
| Project #:     Project #:       Project Wanager:     Project Wanager:       Project Wanager:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ng Address:             | artslad                   | Flou                | UMash                            | LL<br>LL  | 4      | 901 Ha  | wkins I | 1 - H    | nbnqr   | srque, NN | A 87109     |    |
| Matrix     Antiolicity       Devict Manager:     Authority       Autority     Autority       Autority                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                           | Project #:          |                                  |           |        | el. 505 | -345-3  | 975      | Fax     | 505-345-  | 4107        |    |
| Project Menager:     Project Menager:       Archin Michalation     Archin Michalation       D. Revel 4 (full Validation)     Archin Michalation       D. Revel 4 (full Validation)     Sampler:       Arc Compliance     Sampler:       D. Other     Barnier:       Arc Compliance     Ontering       D. Other     Ontering       Matrix     Sampler:       Arc Compliance     Ontering       Arc Compliance     Arc Compliance       Arc Compliance     Container       Arc Compliance     Container       Arc Compliance     Container       Arc Compliance     Container       Arc Compliance <td< td=""><td>ie #.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Ani</td><td>lysis</td><td>Request</td><td></td><td></td></td<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ie #.                   |                           |                     |                                  |           |        |         |         | Ani      | lysis   | Request   |             |    |
| Compliance     Sample       Data     Compliance       Sample     Data       Compliance     Sample       Sample     Data       Container     Peterovarue       Partin     Sample       Container     Peterovarue       Partin     Sample       Container     Peterovarue       Partin     Sample       Container     Peterovarue       Partin     Sample       Container     Peterovarue       Partin     Peterovarue       Sample     Container       Partin     Peterovarue       Sample     Container       Partin     Partin       Sample     Polo       <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | or Fax#:                |                           | Project Manag       | jer.                             |           |        |         | -       | .0       | +-      | ()U       |             | -  |
| Compliance     Sampler     LA       Ontoe:     Ves     Nation       Soul     CS.W. 1     Ves       C.S.W. 1     Ves     Soul       C.S. 2     Ves     Soul       C.S. 2     Ves     Ves       Natanoin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         | Level 4 (Full Validation) | Aur                 | stin U                           | Verant    |        |         | SMISC   | 5 04     | a ita i | ıəzdA\tr  |             |    |
| # of Coolers:     # of Coolers:       Matrix     Sample Name       Matrix     Container       Preservative     HEA, No.       Type and #     Type       Type and #     Type       Type and #     Type       Soil     CS.W. 2       CSS.     Container       Preservative     Preservative       Soil     CS.W. 1       CS.W. 2     Poll Preservative       CS.W. 3     Poll Preservative       CS.W. 4     Preservative       CS.W. 4     Preservative       CS.W. 4     Preservative       CS.W. 4     Preservative       CS.S1     Poll Preservative       CS.S2     Poll Preservative       CS.S1     Poll Preservative       CS.S2     Poll Preservative       CS.S1     Poll Preservative       Reference for     Preservative       Matrix     Preservative       Matrix     Preservative       Preservative     Preservative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | npliance                  | Sampler:<br>On Ice: | LA                               | No No     |        | Z808/s  |         |          | 17      |           |             | _  |
| Matrix     Sample Name     Contrainer     Preservetive     HEA No.       Soil     CSUU 1     403     # Type and #     Type and #       Soil     CSUU 2     K     K     88260 (VOA)       Soil     CSUU 2     K     K     88260 (VOA)       CSUU 2     K     K     K     88260 (VOA)       Soil     CSUU 2     K     K     88260 (VOA)       CSUU 2     K     K     K     K       CSUU 3     CSUU 4     K     K     K       CSUU 4     K     K     K     K       CSS-2     L     L     K     K     K       CSS-1     CSS     K     K     K     K       Mata Man     K     K     K     K <td>vpe)_</td> <td></td> <td># of Coolers:</td> <td></td> <td></td> <td></td> <td>səpi</td> <td>_</td> <td>-</td> <td></td> <td>_</td> <td></td> <td>_</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | vpe)_                   |                           | # of Coolers:       |                                  |           |        | səpi    | _       | -        |         | _         |             | _  |
| Matrix Sample Name Container Preservative HEA No. Experiment Reservative HEA No. Experiment Represervative Reservative Reserva                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |                           | Cooler Temp         | voluding CF): 3,4                | 21        |        | onse    |         |          | _       |           |             |    |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Time Matrix             | Sample Name               | 10.91               | <sup>D</sup> reservative<br>Tvpe | PALL NO.  | -      | 9 1808  |         |          |         |           |             |    |
| CSW 2<br>CSW 3<br>CSW 3<br>CSW 4<br>CSW 4<br>CSM 4 | Soil                    | CSW 1                     |                     |                                  | 100-      |        |         |         | 1.       | -       | -         |             | -  |
| CSW 3       -003       X K       X       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | _                       | 0                         |                     |                                  | -002      | XX     |         |         | $\times$ |         |           |             |    |
| CSW 4<br>CSS-1<br>CSS-1<br>CS-2<br>CS-2<br>CS-2<br>CS-2<br>CS-2<br>Reincuished by<br>Reincuished by<br>Reincuis                                                                                                                                                                                                | 935                     |                           |                     |                                  | -003      | XX     | _       |         |          |         |           |             |    |
| CSS-1<br>CS-2<br>CS-2<br>CS-2<br>CS-2<br>Reincuished by<br>Reincuished by<br>Reincuishe                                                                                                                                                                                                      | 438                     | CSW 4                     |                     |                                  | HON-      | X<br>X |         |         | -        |         |           |             |    |
| CS-2     -000     X X     X       Reincuisted by:     -000     X X     X       Reincuisted by:     -000     010     010       Reincuisted by:     Received by:     010     010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 242                     | C5-1                      |                     |                                  | -005      | XX     | _       | _       |          |         |           |             | F  |
| Reinquished by:<br>Reinquished by                                                                                                                                                                                                                                          | 945                     | 5-22                      |                     |                                  | -006      | X      |         |         |          |         |           |             |    |
| Relinquished by:<br>Relinquished by:<br>Relinq                                                                                                                                                                                                                                                               |                         |                           |                     |                                  |           |        |         |         |          |         |           |             |    |
| Reinquished by Received by Viar Butter Time Remarks:<br>Reinquished by Viar Butter Date Time Remarks:<br>Reinquished by Viar Butter Date Time Mara Than Oil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                           |                     |                                  |           |        |         |         |          |         |           |             |    |
| Reinquished by Received by Viar Bate Time Remarks:<br>Reinquished by: Received by Viar Bute Time Date Time Mara Man Oil<br>Reinquished by: All Mile II Date Time Oil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                           | C                   | •                                |           |        |         |         |          |         |           |             |    |
| Reinquished by: Received by Vial BUULL Date Time Time A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         | by A A.C.                 | Received th         | La                               | MILIS/147 | Remark |         | 0(0)    | Mon      |         | 1.0       | -           |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         | by:                       | Received by         | Via Counch                       | Time Time |        |         |         | ;        |         |           |             |    |

# **APPENDIX** A





July 7, 2023

New Mexico Oil Conservation Division 1220 South St, Francis Drive Santa Fe, NM 87505

Re: Amendment to Closure Report Flowmaster 24 34 15 SB #4H Marathon Oil Corporation NOY1825051444 1RP-5184 Site Location: Unit D, S15, T24S, R34E (Lat 32.223850°, Long -103.461910°) Lea County, New Mexico

To Whom It May Concern:

On behalf of Marathon Oil Corporation (Marathon), Carmona Resource, LLC has prepared this letter to document additional site activities for the Flowmaster 24 34 15 SB #4H. The site is located at the GPS 32.223850°, -103.461910° within Unit A, S26, T24S, R34E in Lea County, New Mexico.

## **1.0 Site Information and Background**

## NOY1825051444/1RP-5184

On March 7, 2023, the New Mexico OCD denied the closure report for the following reason: The confirmation sample point CS2 does not meet the closure criteria of 600 mg/kg for chloride. Please continue to delineate sample point CS2 to 600 mg/kg for chlorides and include sample points in your next report after closure criteria limits have been met.

## 2.0 Site Assessment Activities

On June 21, 2023, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts stemming from the release. One (1) sample point (S-1) was advanced to a depth ranging from the surface to 1.5' bgs inside the release area at CS2 to assess the vertical extent. See Figure 3 for the sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 4500. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix D.

All samples were below the regulatory requirements for TPH, BTEX, and chloride. Refer to Table 1. The sample point of CS2 has undergone attenuation from precipitation and weather events that occurred from the initial sampling on October 21, 2018, to the present.

310 West Wall Street, Suite 500 Midland, Texas 79701 432.813.1992



## **3.0 Conclusions**

Based on the assessment results and the analytical data, no further actions are required at the site. The final C-141 is attached in Appendix A of the original request for closure. Marathon formally requests the closure of the spill. If you have any questions regarding this report or need additional information, please get in touch with us at 432-813-1992.

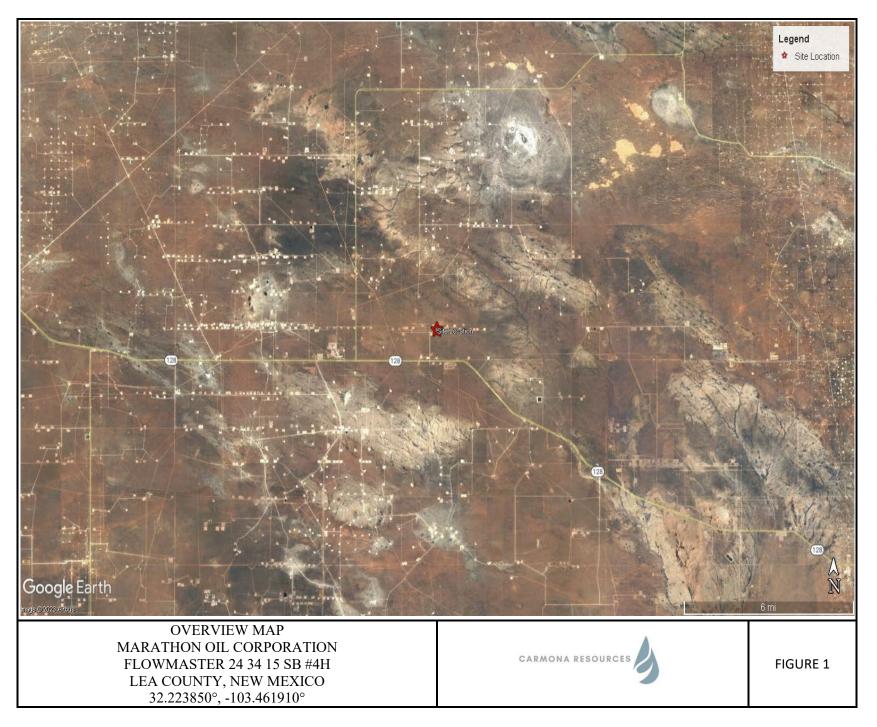
Sincerely, Carmona Resources, LLC

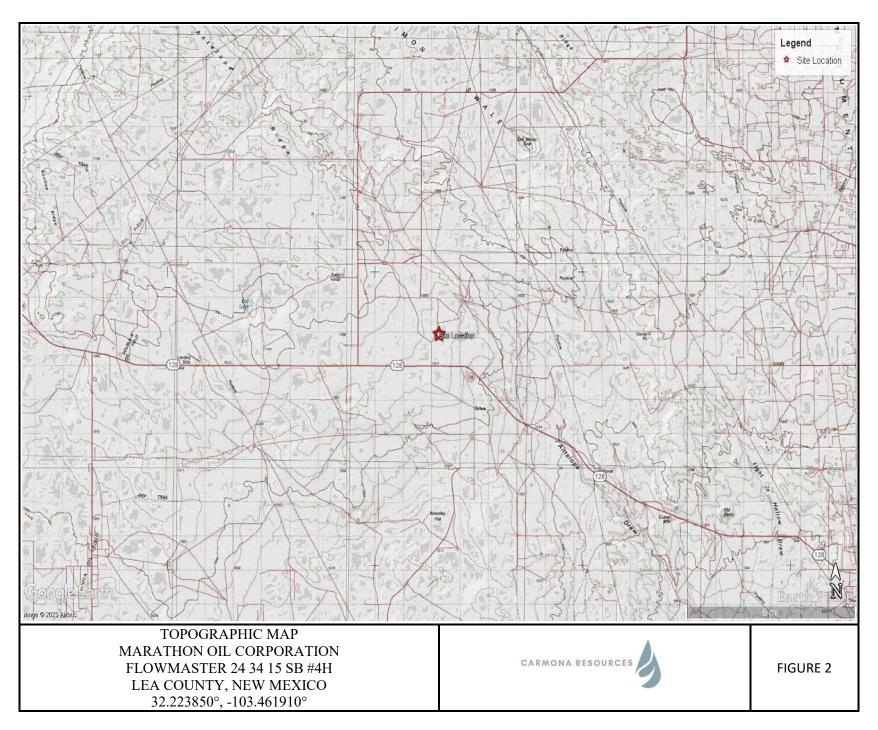
Mike Carmona Environmental Manager

Clinton Merritt Sr. Project Manager











# **APPENDIX B**



Table 1 Marathon Oil Corporation Flowmaster 24 34 15 SB #4H Lea County, New Mexico

| 0         | Dette                    |            |       | TPH   | l (mg/kg) |           | Benzene  | Toluene | Ethlybenzene | Xylene  | Total BTEX | Chloride  |
|-----------|--------------------------|------------|-------|-------|-----------|-----------|----------|---------|--------------|---------|------------|-----------|
| Sample ID | Date                     | Depth (ft) | GRO   | DRO   | MRO       | Total     | (mg/kg)  | (mg/kg) | (mg/kg)      | (mg/kg) | (mg/kg)    | (mg/kg)   |
|           | 6/21/2023                | 0-0.5      | <10.0 | <10.0 | <10.0     | <10.0     | <0.050   | <0.050  | <0.050       | <0.150  | <0.300     | 160       |
| S-1       | "                        | 1          | <10.0 | <10.0 | <10.0     | <10.0     | <0.050   | <0.050  | <0.050       | <0.150  | <0.300     | 192       |
|           | "                        | 1.5        | <10.0 | <10.0 | <10.0     | <10.0     | <0.050   | <0.050  | <0.050       | <0.150  | <0.300     | 96.0      |
| Regulato  | ry Criteria <sup>A</sup> |            |       |       |           | 100 mg/kg | 10 mg/kg |         |              |         | 50 mg/kg   | 600 mg/kg |
| ()        | A                        |            |       |       |           |           |          |         |              |         |            |           |

(-) Not Analyzed

<sup>A</sup> – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram TPH- Total Petroleum Hydrocarbons

ft-feet

(S) - Sample Point

# **APPENDIX C**



# **PHOTOGRAPHIC LOG**

## Marathon Oil Corporation

| Photograph N                    | o. 1                       | SE         S         SW         W           120         150         180         210         240         270           1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • |
|---------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Facility:                       | Flowmaster 24 34 15 SB #4H | © 200°S (T) LAT: 32.223520 LON: -103.462093 ±13ft ▲ 3523ft                                                                                                    |
| County:                         | Lea County, New Mexico     |                                                                                                                                                               |
| Description:<br>View Southwest  | of sample point S-1.       | 21 Jun 2023, 10:51:30 AM                                                                                                                                      |
| Photograph N                    | o. 2                       | <b>S</b> SW <b>W</b> NW<br>180 210 240 240 330 330 330                                                                                                        |
| Facility:                       | Flowmaster 24 34 15 SB #4H | © 262°W (T) LAT: 32.223447 LON: -103.462025 ±13ft ▲ 3527ft                                                                                                    |
| County:                         | Lea County, New Mexico     |                                                                                                                                                               |
| Description:<br>View West of sa | mple point S-1.            | 21 Jun 2023, 10:51:38 AM                                                                                                                                      |
| Photograph N                    | o. 3                       | $SW \qquad W \qquad 00 \qquad NW \qquad N$                                                                                                                    |
| Facility:                       | Flowmaster 24 34 15 SB #4H | © 298°NW (T) LAT: 32.223383 LON: -103.462038 ±13ft ▲ 3528ft                                                                                                   |
| County:                         | Lea County, New Mexico     | AT A                                                                                                                                                          |
| Description:<br>View Northwest  | of sample points S-1.      | 21 Jun 2023, 10:51 48 AM                                                                                                                                      |

# **APPENDIX D**





June 28, 2023

CLINT MERRITT CARMONA RESOURCES 310 W WALL ST SUITE 415 MIDLAND, TX 79701

RE: FLOWMASTER 24 34 15 SB #4H

Enclosed are the results of analyses for samples received by the laboratory on 06/23/23 12:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

| Received:         | 06/23/2023                 | Sampling Date:      | 06/21/2023     |
|-------------------|----------------------------|---------------------|----------------|
| Reported:         | 06/28/2023                 | Sampling Type:      | Soil           |
| Project Name:     | FLOWMASTER 24 34 15 SB #4H | Sampling Condition: | Cool & Intact  |
| Project Number:   | 2050                       | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NEW MEXICO     |                     |                |

#### Sample ID: S - 1 (0-0.5') (H233278-01)

| BTEX 8021B                           | mg/    | /kg             | Analyze    | d By: JH/    |      |            |               |       |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.28 | 114        | 2.00          | 4.59  |           |
| Toluene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.15 | 107        | 2.00          | 0.640 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 06/24/2023 | ND           | 2.25 | 112        | 2.00          | 3.92  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 06/24/2023 | ND           | 6.77 | 113        | 6.00          | 2.78  |           |
| Total BTEX                           | <0.300 | 0.300           | 06/24/2023 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 114 9  | % 71.5-13       | 4          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/    | /kg             | Analyze    | d By: AC     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 160    | 16.0            | 06/23/2023 | ND           | 416  | 104        | 400           | 3.77  |           |
| TPH 8015M                            | mg/    | /kg             | Analyze    | d By: MS     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 06/23/2023 | ND           | 171  | 85.4       | 200           | 0.783 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 06/23/2023 | ND           | 180  | 90.0       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 06/23/2023 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 92.0   | % 48.2-13       | 4          |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 101    | % 49.1-14       | 8          |              |      |            |               |       |           |

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

| Received:         | 06/23/2023                 | Sampling Date:      | 06/21/2023     |
|-------------------|----------------------------|---------------------|----------------|
| Reported:         | 06/28/2023                 | Sampling Type:      | Soil           |
| Project Name:     | FLOWMASTER 24 34 15 SB #4H | Sampling Condition: | Cool & Intact  |
| Project Number:   | 2050                       | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NEW MEXICO     |                     |                |

#### Sample ID: S - 1 (1') (H233278-02)

| BTEX 8021B                           | mg,    | /kg             | Analyze    | d By: JH/    |      |            |               |       |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.28 | 114        | 2.00          | 4.59  |           |
| Toluene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.15 | 107        | 2.00          | 0.640 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 06/24/2023 | ND           | 2.25 | 112        | 2.00          | 3.92  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 06/24/2023 | ND           | 6.77 | 113        | 6.00          | 2.78  |           |
| Total BTEX                           | <0.300 | 0.300           | 06/24/2023 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 114 9  | % 71.5-13       | 4          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg,    | /kg             | Analyze    | d By: AC     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 192    | 16.0            | 06/23/2023 | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg/    | /kg             | Analyze    | d By: MS     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 06/23/2023 | ND           | 171  | 85.4       | 200           | 0.783 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 06/23/2023 | ND           | 180  | 90.0       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 06/23/2023 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 96.2   | % 48.2-13       | 4          |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 106    | % 49.1-14       | 8          |              |      |            |               |       |           |

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#### \*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

CARMONA RESOURCES CLINT MERRITT 310 W WALL ST SUITE 415 MIDLAND TX, 79701 Fax To:

| Received:         | 06/23/2023                 | Sampling Date:      | 06/21/2023     |
|-------------------|----------------------------|---------------------|----------------|
| Reported:         | 06/28/2023                 | Sampling Type:      | Soil           |
| Project Name:     | FLOWMASTER 24 34 15 SB #4H | Sampling Condition: | Cool & Intact  |
| Project Number:   | 2050                       | Sample Received By: | Tamara Oldaker |
| Project Location: | LEA COUNTY, NEW MEXICO     |                     |                |

#### Sample ID: S - 1 (1.5') (H233278-03)

| BTEX 8021B                           | mg     | /kg             | Analyze    | d By: JH/    |      |            |               |       |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.28 | 114        | 2.00          | 4.59  |           |
| Toluene*                             | <0.050 | 0.050           | 06/24/2023 | ND           | 2.15 | 107        | 2.00          | 0.640 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 06/24/2023 | ND           | 2.25 | 112        | 2.00          | 3.92  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 06/24/2023 | ND           | 6.77 | 113        | 6.00          | 2.78  |           |
| Total BTEX                           | <0.300 | 0.300           | 06/24/2023 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 114 9  | % 71.5-13       | 4          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg,    | /kg             | Analyze    | d By: AC     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 96.0   | 16.0            | 06/23/2023 | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg,    | /kg             | Analyze    | d By: MS     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 06/23/2023 | ND           | 171  | 85.4       | 200           | 0.783 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 06/23/2023 | ND           | 180  | 90.0       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 06/23/2023 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 93.4   | % 48.2-13       | 4          |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 101    | % 49.1-14       | 8          |              |      |            |               |       |           |

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

| QR-03 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.                                                        |
| ND    | Analyte NOT DETECTED at or above the reporting limit                                                                                                                                    |
| RPD   | Relative Percent Difference                                                                                                                                                             |
| **    | Samples not received at proper temperature of 6°C or below.                                                                                                                             |
| ***   | Insufficient time to reach temperature.                                                                                                                                                 |
| -     | Chloride by SM4500Cl-B does not require samples be received at or below 6°C                                                                                                             |

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

|                              |                        |                            |                              |              | THIN AND AN AND ADDRESS         |              | -        | lalodia           | Caniari          |                           | Work                                                                                                                                                     | Work Order Comments                                               |
|------------------------------|------------------------|----------------------------|------------------------------|--------------|---------------------------------|--------------|----------|-------------------|------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| roject Manager: (            | <b>Clinton Merritt</b> |                            |                              |              | Bill to: (if different)         | ent)         | -        | Melodie Salijali  | Dalijan          |                           | Deserved lietibet DBD                                                                                                                                    | knownfields RC uperfund                                           |
| Company Name: (              | Carmona Resources      | ources                     |                              |              | Company Name                    | ime:         | -        | larathor          | 1 OII Co         | Marathon Oil Corporation  | State of Broject:                                                                                                                                        | [                                                                 |
|                              | 310 W Wall St Ste 500  | Ste 500                    |                              |              | Address:                        |              | 60       | 90 Tow            | n and C          | 990 Town and Country Blvd |                                                                                                                                                          |                                                                   |
| e ZIP:                       | Midland, TX 79701      | 1701                       |                              |              | City, State ZIP:                | P:           | T        | Houston, TX 77024 | TX 77            | 124                       |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              | Email:       | Email: msanjari@marathonoil.con | naratho      | onoil.co | в                 |                  |                           | Deliverables: EDD                                                                                                                                        | ADaPT U Other:                                                    |
|                              | Flowma                 | Flowmaster 24 34 15 SB #4H | SB #4H                       |              |                                 |              |          |                   |                  | ANA                       | ANAI YSIS REQUEST                                                                                                                                        | Preservative Codes                                                |
| project Name:                |                        | 2010                       |                              | S Routine    | Rush                            |              | Pres.    | _                 | -                |                           |                                                                                                                                                          | None: NO DI Water: H <sub>2</sub> O                               |
| Project Number:              |                        | 0CU7                       |                              |              |                                 | -            | Lone     | +                 | +                |                           |                                                                                                                                                          | Cool: Cool MeOH: Me                                               |
| <sup>o</sup> roject Location | Lea (                  | Lea County, New Mexico     | fexico                       | Due Date:    | 5 Day TAT                       | F            |          |                   | )<br>            |                           |                                                                                                                                                          |                                                                   |
| Sampler's Name:              |                        | CCM                        |                              |              |                                 |              |          |                   | MRG              |                           |                                                                                                                                                          | 2                                                                 |
| 00#                          |                        |                            |                              |              |                                 |              | ters     |                   |                  |                           |                                                                                                                                                          | H <sub>4</sub> PO <sub>4</sub> : HP                               |
| SAMPLE RECEIPT               |                        | Temp Blank:                | Yes No                       | Wet Ice:     | Xes No                          | °            | me       |                   |                  |                           |                                                                                                                                                          | NaHSO4: NABIS                                                     |
| Received Intact:             | R                      | Yes No                     | Thermometer ID:              |              | 011                             | 6            | Para     | X 80              | ride             |                           |                                                                                                                                                          | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> |
| Cooler Custody Seals:        | Yes                    | NO NIA                     | Correction Factor:           | 5            | -0.6                            | 1            | '        |                   |                  |                           |                                                                                                                                                          | Zn Acetate+NaOH: Zn                                               |
| Sample Custody Seals:        |                        | NO CNIA                    | Temperature Reading:         | ading:       | 1.0                             | 00           |          |                   | 8015N            |                           |                                                                                                                                                          | NaOH+Ascorbic Acid: SAPC                                          |
| Total Containers:            |                        |                            | Consciss Lomboranics         | Ciatorio.    |                                 | Grahl        | #        |                   | TPH              |                           |                                                                                                                                                          | Sample Comments                                                   |
| Sample Identification        | tification             | Date                       | Time                         | Soil         | Water c                         |              | Cont     |                   |                  |                           |                                                                                                                                                          |                                                                   |
| S-1 (0-0.5')                 | ).5')                  | 6/21/2023                  | 9:25                         | ×            |                                 | G            | -        | ×                 | ×                | ×                         |                                                                                                                                                          |                                                                   |
| S-1 (1')                     | "                      | 6/21/2023                  | 9:28                         | ×            |                                 | G            | -        | ×                 | $\vdash$         | ×                         |                                                                                                                                                          |                                                                   |
| S-1 (1.5')                   | .5")                   | 6/21/2023                  | 9:30                         | ×            | +                               | G            | -        | ×                 | ×                | ×                         |                                                                                                                                                          |                                                                   |
|                              |                        | T                          |                              |              |                                 | $\downarrow$ |          | $\downarrow$      | +                | _                         |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              |              |                                 |              |          |                   | $\left  \right $ |                           |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              |              |                                 | $\perp$      |          | _                 | +                |                           |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              |              |                                 |              |          |                   | +                |                           |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              |              |                                 |              |          |                   |                  |                           |                                                                                                                                                          |                                                                   |
|                              |                        |                            |                              |              |                                 |              |          |                   |                  |                           | Se com Clint Merritt MerrittC@carmo                                                                                                                      | naresources.com                                                   |
| Comments: Email              | results to Mi          | ke Carmona n               | ncarmona@ca                  | rmonaresourc | ces.com, Co                     | nner N       | loehrin  | g cmo             | ehring           | @carmonaresource          | Comments: Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring@carmonaresources.com, Clint Merritt Merritt-@carmonaresources.com | naresources.com                                                   |
|                              |                        |                            |                              |              |                                 |              |          |                   |                  |                           |                                                                                                                                                          |                                                                   |
|                              |                        |                            | her (Cimpeture)              |              |                                 |              |          | Date/Time         | me               |                           | Received by: (Signature)                                                                                                                                 | Date/Time                                                         |
|                              |                        | Relinquished               | Relinquished by: (Signature) |              |                                 |              | 2        | 17                | 217              | A AM                      | MY PORTAN VIEIL                                                                                                                                          | . 2                                                               |
| 1                            | 11                     | 11/1                       | N Mart                       |              |                                 |              | 9        | 5                 | 1                | W Color                   | and the second                                                                                                                                           |                                                                   |
| Inne                         | ma                     | 1/1/1                      |                              |              |                                 |              |          |                   | -1               |                           |                                                                                                                                                          |                                                                   |
|                              |                        | 11 1 0                     | DWD                          |              |                                 |              |          |                   | P                | 0                         |                                                                                                                                                          |                                                                   |

- 22

## Received by OCD: 7/10/2023 9:41:59 AM

**Chain of Custody** 

Proj Com Add City Pho

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Work Order No: 4233278

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

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

District III

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

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

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

CONDITIONS

| Operator:                | OGRID:                                    |
|--------------------------|-------------------------------------------|
| MARATHON OIL PERMIAN LLC | 372098                                    |
| 990 Town & Country Blvd. | Action Number:                            |
| Houston, TX 77024        | 237840                                    |
|                          | Action Type:                              |
|                          | [C-141] Release Corrective Action (C-141) |
|                          |                                           |

#### CONDITIONS

| Created By |      | Condition<br>Date |
|------------|------|-------------------|
| jharimon   | None | 7/20/2023         |

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