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

APPROVED
By Olivia Yu at 12:10 pm, Sep 13, 2018

June 14, 2018

#5E27122-BG4

NMOCD District I
Olivia Yu
1625 N French Dr
Hobbs, NM 88240

NMOCD will approve of 1RP-4765 for closure, pending stipulations in email communication.

SUBJECT: SOIL REMEDIATION CLOSURE REPORT FOR THE BALLARD DE FEDERAL #2 (1RP-4765), LEA COUNTY, NEW MEXICO

Dear Ms. Yu:

On behalf of Marathon Oil Company (Marathon), Souder, Miller & Associates (SMA) has prepared this CLOSURE REPORT that describes the assessment, delineation and remediation for a release associated with the Ballard DE Federal #2. The site is in UNIT C, SECTION 27, TOWNSHIP 20S, RANGE 34E, NMPM, Lea County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and location of the site. Table 1 summarizes information regarding the release.

Table 1: Release information and Site Ranking	
Name	Ballard DE Federal #2
Company	Marathon Oil Company
Incident Number	1RP-4765
API Number	30-025-02465
Location	32.5504454, -103.5491486
Estimated Date of Release	7/4/2017
Date Reported to NMOCD	7/26/2017
Land Owner	BLM
Reported To	NMOCD District I
Source of Release	Flowline Near Wellhead
Released Material	Oil
Released Volume	10 bbls
Recovered Volume	unknown
Net Release	<10 bbls
Nearest Waterway	Unnamed drainage is approximately 2 miles southeast of location
Depth to Groundwater	Estimated to be greater than 100 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	0
SMA Response Dates	5/7/2018, 5/23/2018

1.0 Background

A release occurred from the flowline near the wellhead of the Ballard DE Federal #2, due to human error. Visually affected soils were removed at the time of release by Marathon operations group.

2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 26 miles east of Hobbs, with an elevation of approximately 3,685 feet above sea level. SMA searched the New Mexico State Engineer's Office (NMOSE) online water well database for water wells in the vicinity of the release. Several wells are located within a three-mile radius of the site. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be greater than 200 feet below ground surface (bgs).

Recommended Remediation Action Levels (RRALs) are determined by the site ranking according to the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (1993). Below in Table 2 are the remediation standards and the site ranking for this location. Justification for this site ranking is found in Figure 1 and Appendix B.

Table 2.

Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM

Depth to Groundwater	NMOCD Numeric Rank
< 50 BGS = 20	
50' to 99' = 10	
>100' = 0	0
Distance to Nearest Surface Water	**NMOCD Numeric Rank**
< 200' = 20	
200' - 1000' = 10	
>1000' = 0	0
Well Head Protection	**NMOCD Numeric Rank**
<1000' (or <200' domestic) = 20	
> 1000' = 0	0
Total Site Ranking	**0**

3.0 Release Characterization

On May 7, 2018, SMA field personnel assessed the release area. The site had previously been excavated by Marathon Oil. samples were collected from the bottom of the existing excavation, which varied from three to five feet bgs, six sidewall soil samples were also collected. All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for MRO, DRO, and GRO by EPA Method 8015D, BTEX by EPA Method 8021, and Chlorides by Method 300. Sample

locations are depicted on Figure 2. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

Two sidewall samples (SW2 and SW3) returned results of elevated hydrocarbon, while all samples returned chloride results at acceptable levels.

4.0 Soil Remediation

On May 23, 2018, after approval from area utilities via 811, SMA field personnel returned to the location with a backhoe service to oversee excavation of remaining impacted soil. SW2 and SW3 were excavated an additional two feet to the north and east. Two additional samples were collected from each area to confirm contamination was removed.

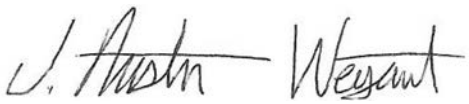
As summarized in Table 3, the additional excavation appeared to remove remaining contamination, and all closure samples are within NMOCD's recommended remediation action levels (RRAL's). No further action is recommended at this location.

5.0 Scope and Limitations

The scope of our services consisted of the performance of assessment sampling, verification of release stabilization, regulatory liaison, and preparation of 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



Austin Weyant
Project Scientist

Reviewed by:

Shawna Chubbuck
Senior Scientist

ATTACHMENTS:

Figures:

Figure 1: Vicinity and Well Head Protection Map
Figure 2: Site and Sample Location Map

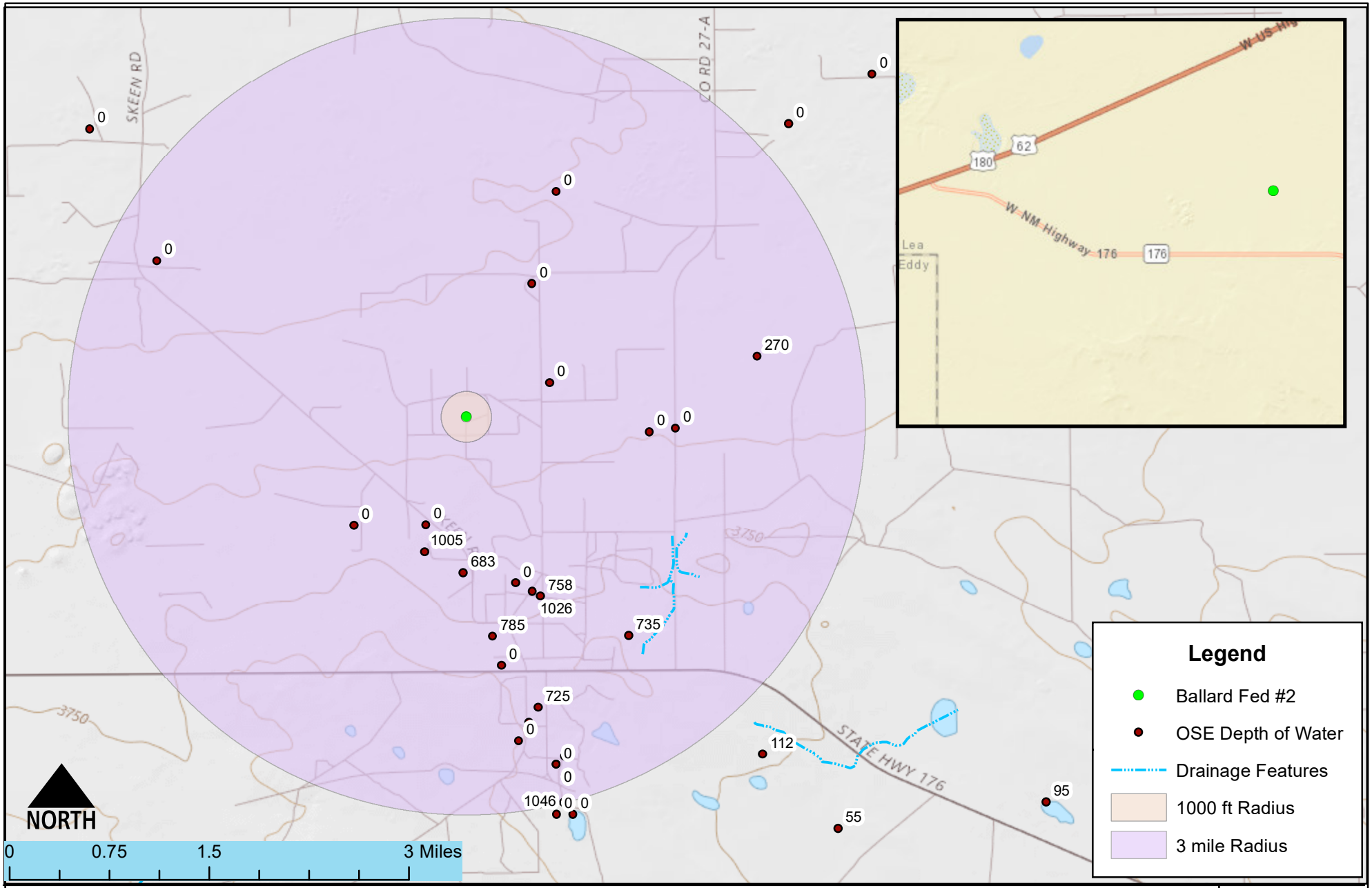
Tables:

Table 3: Summary of Sample Results

Appendices:

Appendix A: Form C141 Initial and Final
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports

FIGURE 1
VICINITY AND NMOSE DATA MAP



Vicinity and Well Head Protection Map
Ballard DE Fed #2 - Marathon
S 27-T20S-R34E, New Mexico

Figure 1

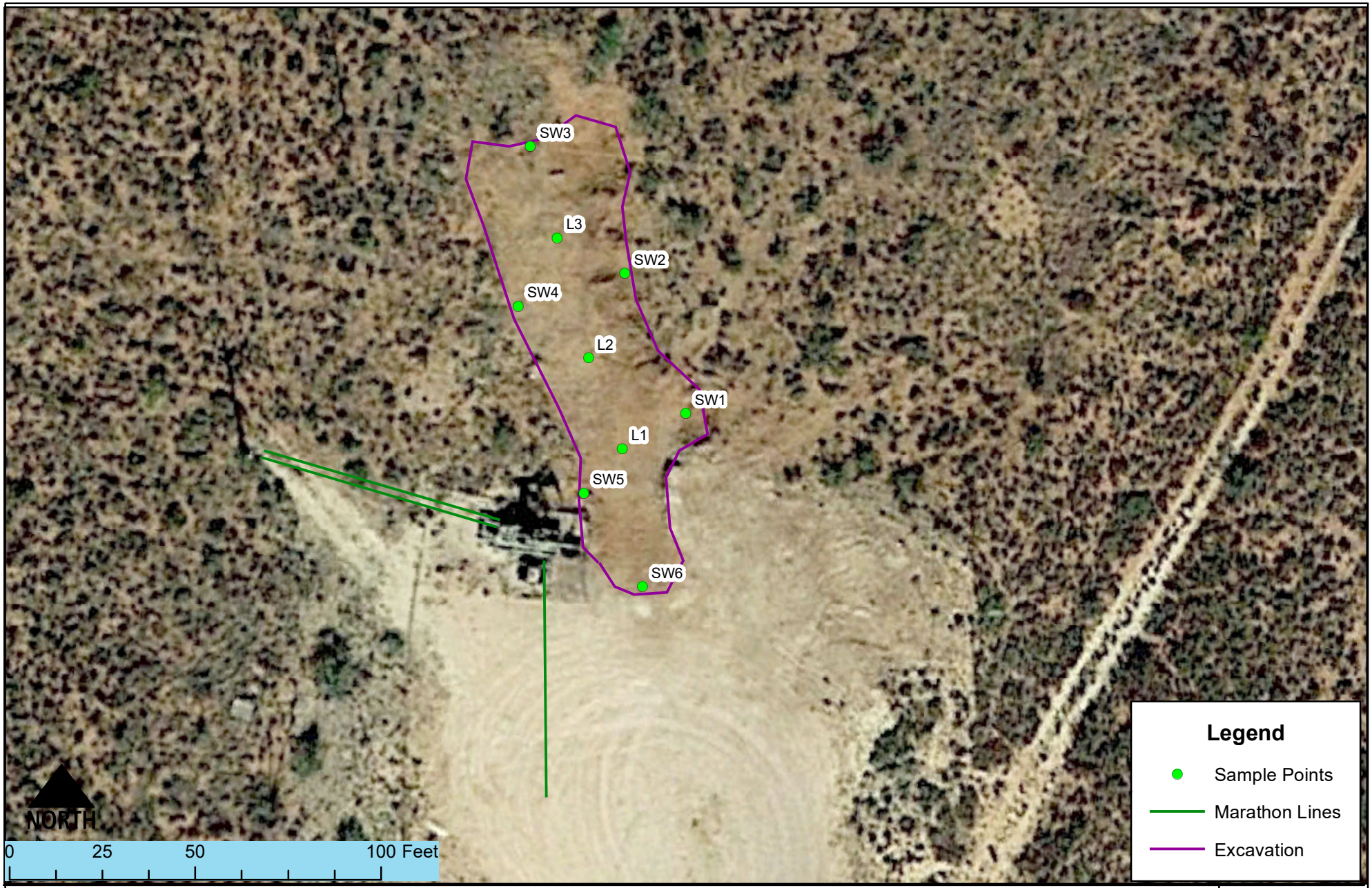
Date Saved: 6/5/2018

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

Drawn Heather Patterson
Checked
Approved

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

FIGURE 2
SITE AND SAMPLE LOCATION MAP



Site and Sample Location Map
Ballard DE Fed #2 - Marathon
S 27-T20S-R34E, New Mexico

Figure 2

Date Saved: 6/14/2018

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

Drawn Heather Patterson
Checked
Approved

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TABLE 3
SUMMARY SAMPLE RESULTS

Ballard Fed #2

Table 3.

Sample Number on Figure 2	Sample Date	Depth (feet bgs)	Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- Laboratory mg/Kg
NMOCD RRAL's for Site Ranking 0				50 mg/Kg	10 mg/Kg				5000 mg/Kg	
L1	5/7/2018	4	in-situ	<0.21	<0.024	<4.8	290	1400	1690	<30
L2	5/7/2018	5	in-situ	<0.21	<0.024	<4.9	80	340	420	560
L3	5/7/2018	3	in-situ	<0.21	<0.024	<4.7	64	150	214	<30
SW1	5/7/2018	sidewall	in-situ	<0.21	<0.025	<5.0	110	640	750	<30
SW2	5/7/2018	sidewall	excavated	<1.05	<0.12	55	5800	4400	**10255**	<30
	5/23/2018	sidewall	in-situ	--	--	<4.7	<10	<50	<65	--
SW3	5/7/2018	sidewall	excavated	<1.1	<0.12	<24	6,800	5,000	**11,800**	<30
	5/23/2018	sidewall	in-situ	--	--	<4.7	<10	<50	<65	--
SW4	5/7/2018	sidewall	in-situ	<0.23	<0.023	<4.6	29	130	159	<30
SW5	5/7/2018	sidewall	in-situ	<0.21	<0.024	<4.8	83	490	61	110
SW6	5/7/2018	sidewall	in-situ	<0.23	<0.024	<4.9	61	150	211	<30

"--" = Not Analyzed

APPENDIX A
FORM C141 INITIAL AND FINAL

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Marathon Oil Company	Contact Wendy Gram
Address 5555 San Felipe Street, Houston, Texas 77056	Telephone No. 701-690-6519 (cell) 713-296-2862 (office)
Facility Name Ballard DE Federal #2	Facility Type Oil well

Surface Owner BLM y III	Mineral Owner BLM	API No. 30-025-02465

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	27	20S	34E	330	North	2310	West	Lea

Latitude 32.5504454 **Longitude** -103.5491486 NAD83

NATURE OF RELEASE

Type of Release Spill	Volume of Release ≈10 barrels	Volume Recovered ≈10 barrels
Source of Release Unknown – Incident under investigation	Date and Hour of Occurrence 7/4/2017	Date and Hour of Discovery 7/4/2017 1 PM.
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
Not applicable.

RECEIVED
By Olivia Yu at 11:14 am, Jul 26, 2017

Describe Cause of Problem and Remedial Action Taken.*
Estimated spill volume of ten barrels coming from area around the wellhead and flowline. Cause is under investigation. Spill did not leave pad. Well has been shut in.

Describe Area Affected and Cleanup Action Taken.*
Removed impacted soils.

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

Wendy Gram Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: Wendy Gram	
Title: Sr. HES Professional	Approval Date: 7/26/2017 Expiration Date:
E-mail Address: wwgram@marathonoil.com	Conditions of Approval: see attached directive Attached ☑
Date: July 19, 2017 Phone: 701-690-6519 (cell) 713-296-2862 (office)	

* Attach Additional Sheets If Necessary

1RP-4765

nOY1720746925

pOY1720753645

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _7/19/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4765__ has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _8/26/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

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

APPENDIX B
NMOSE WELLS REPORT

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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01389 POD1	CP	LE	1	1	1	34	20S	34E	635726	3600733	1719	1250	1005	245
CP 00800 POD1	CP	LE	2	2	2	22	20S	34E	637007	3603994*	1795	220		
CP 01330 POD1	CP	LE	4	2	1	34	20S	34E	636197	3600483	1896	1349	684	665
CP 01289 POD1	CP	LE	4	4	2	34	20S	34E	637037	3600261	2269	1222	651	571
CP 01288 POD1	CP	LE	4	4	2	34	20S	34E	637134	3600204	2358	1255	758	497
CP 01204 POD1	CP	LE	3	1	1	25	20S	34E	638755	3602250	2536	370		
CP 01352 POD1	CP	LE	3	1	4	34	20S	34E	636559	3599716	2684	1270	785	485
CP 00655 POD1	CP	LE		3	1	14	20S	34E	637294	3605108*	2931	210		
CP 00799 POD1	CP	LE	4	3	4	34	20S	34E	636666	3599364*	3048	100		
CP 01335 POD1	CP	LE	4	1	4	35	20S	34E	638205	3599736	3304	1307	735	572
CP 01334 POD1	CP	LE	1	2	4	35	20S	34E	638402	3599879	3317	1253	733	520
CP 00665	CP	LE		1	4	24	20S	34E	639740	3603128*	3596	698	270	428
CP 01290 POD1	CP	LE		3	1	02	21S	33E	637114	3598855	3635	1250	725	525
CP 00802 POD1	CP	LE	3	3	2	02	21S	33E	637001	3598672	3787	1154		
CP 01317 POD1	CP	LE	1	3	2	02	21S	33E	636884	3598450	3984	1250	1025	225
CP 00657 POD1	CP	LE		3	3	17	20S	34E	632465	3604239*	4191	165		
CP 00579	CP	LE		2	2	02	21S	33E	637438	3598269*	4286	125	100	25
CP 00803 POD1	CP	LE	3	2	2	02	21S	33E	637337	3598168*	4356	1100		
CP 00804 POD1	CP	LE	3	2	2	02	21S	33E	637337	3598168*	4356	170		
CP 01316 POD1	CP	LE	3	2	4	02	21S	33E	637432	3597709	4824	1370		
CP 00797 POD1	CP	LE	1	2	4	02	21S	33E	637348	3597564*	4945	110		
CP 00796 POD1	CP	LE	2	2	4	02	21S	33E	637548	3597564*	4994	102		

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

Average Depth to Water: **679 feet**

Minimum Depth: **100 feet**

Maximum Depth: **1025 feet**

Record Count: 22

UTMNAD83 Radius Search (in meters):

Easting (X): 636221.81 **Northing (Y):** 3602379.6 **Radius:** 5000

APPENDIX C

LABORATORY ANALYTICAL REPORTS

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

May 17, 2018

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

RE: Ballard 2 OrderNo.: 1805496

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/9/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1805496**
Date Reported: **5/17/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-4
Project: Ballard 2
Collection Date: 5/7/2018 12:01:00 PM
Lab ID: 1805496-001 **Matrix:** SOIL **Received Date:** 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/11/2018 3:35:32 PM	38068
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	290	100		mg/Kg	10	5/13/2018 2:26:37 PM	38039
Motor Oil Range Organics (MRO)	1400	500		mg/Kg	10	5/13/2018 2:26:37 PM	38039
Surr: DNOP	0	70-130	S	%Rec	10	5/13/2018 2:26:37 PM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Surr: BFB	83.9	15-316		%Rec	1	5/10/2018 1:11:58 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Benzene	ND	0.024		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Toluene	ND	0.048		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Ethylbenzene	ND	0.048		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Xylenes, Total	ND	0.097		mg/Kg	1	5/10/2018 1:11:58 PM	38023
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/10/2018 1:11:58 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-5
Project: Ballard 2
Collection Date: 5/7/2018 12:08:00 PM
Lab ID: 1805496-002
Matrix: SOIL
Received Date: 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	560	30		mg/Kg	20	5/11/2018 4:12:45 PM	38068
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	80	9.9		mg/Kg	1	5/15/2018 3:10:18 AM	38039
Motor Oil Range Organics (MRO)	340	50		mg/Kg	1	5/15/2018 3:10:18 AM	38039
Surr: DNOP	104	70-130		%Rec	1	5/15/2018 3:10:18 AM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Surr: BFB	84.5	15-316		%Rec	1	5/10/2018 2:22:05 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Benzene	ND	0.024		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Toluene	ND	0.049		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Xylenes, Total	ND	0.097		mg/Kg	1	5/10/2018 2:22:05 PM	38023
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	5/10/2018 2:22:05 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-3
Project: Ballard 2
Collection Date: 5/7/2018 12:11:00 PM
Lab ID: 1805496-003 **Matrix:** SOIL **Received Date:** 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/11/2018 4:25:10 PM	38068
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	64	9.9		mg/Kg	1	5/13/2018 3:11:06 PM	38039
Motor Oil Range Organics (MRO)	150	50		mg/Kg	1	5/13/2018 3:11:06 PM	38039
Surr: DNOP	106	70-130		%Rec	1	5/13/2018 3:11:06 PM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Surr: BFB	91.8	15-316		%Rec	1	5/10/2018 3:32:23 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Benzene	ND	0.024		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Toluene	ND	0.047		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Ethylbenzene	ND	0.047		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Xylenes, Total	ND	0.095		mg/Kg	1	5/10/2018 3:32:23 PM	38023
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/10/2018 3:32:23 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Ballard 2
Collection Date: 5/7/2018 12:03:00 PM
Lab ID: 1805496-004 **Matrix:** SOIL **Received Date:** 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/11/2018 4:37:34 PM	38068
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	110	100		mg/Kg	10	5/13/2018 3:33:15 PM	38039
Motor Oil Range Organics (MRO)	640	500		mg/Kg	10	5/13/2018 3:33:15 PM	38039
Surr: DNOP	0	70-130	S	%Rec	10	5/13/2018 3:33:15 PM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Surr: BFB	85.2	15-316		%Rec	1	5/10/2018 3:55:49 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Benzene	ND	0.025		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Toluene	ND	0.050		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Ethylbenzene	ND	0.050		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Xylenes, Total	ND	0.10		mg/Kg	1	5/10/2018 3:55:49 PM	38023
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/10/2018 3:55:49 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Ballard 2
Collection Date: 5/7/2018 12:08:00 PM
Lab ID: 1805496-005
Matrix: SOIL
Received Date: 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/14/2018 5:37:10 PM	38091
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	5800	100		mg/Kg	10	5/13/2018 3:55:30 PM	38039
Motor Oil Range Organics (MRO)	4400	500		mg/Kg	10	5/13/2018 3:55:30 PM	38039
Surr: DNOP	0	70-130	S	%Rec	10	5/13/2018 3:55:30 PM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	55	23		mg/Kg	5	5/11/2018 10:23:46 AM	38023
Surr: BFB	139	15-316		%Rec	5	5/11/2018 10:23:46 AM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.47	D	mg/Kg	5	5/11/2018 10:23:46 AM	38023
Benzene	ND	0.12	D	mg/Kg	5	5/11/2018 10:23:46 AM	38023
Toluene	ND	0.23	D	mg/Kg	5	5/11/2018 10:23:46 AM	38023
Ethylbenzene	ND	0.23	D	mg/Kg	5	5/11/2018 10:23:46 AM	38023
Xylenes, Total	ND	0.47	D	mg/Kg	5	5/11/2018 10:23:46 AM	38023
Surr: 4-Bromofluorobenzene	108	80-120	D	%Rec	5	5/11/2018 10:23:46 AM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Ballard 2
Collection Date: 5/7/2018 12:13:00 PM
Lab ID: 1805496-006
Matrix: SOIL
Received Date: 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/14/2018 5:49:34 PM	38091
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	6800	1000		mg/Kg	100	5/12/2018 1:21:36 AM	38039
Motor Oil Range Organics (MRO)	5000	5000		mg/Kg	100	5/12/2018 1:21:36 AM	38039
Surr: DNOP	0	70-130	S	%Rec	100	5/12/2018 1:21:36 AM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	24	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Surr: BFB	91.2	15-316	D	%Rec	5	5/11/2018 11:10:23 AM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.47	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Benzene	ND	0.12	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Toluene	ND	0.24	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Ethylbenzene	ND	0.24	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Xylenes, Total	ND	0.47	D	mg/Kg	5	5/11/2018 11:10:23 AM	38023
Surr: 4-Bromofluorobenzene	102	80-120	D	%Rec	5	5/11/2018 11:10:23 AM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Ballard 2
Collection Date: 5/7/2018 12:15:00 PM
Lab ID: 1805496-007
Matrix: SOIL
Received Date: 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/15/2018 9:12:40 AM	38095
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	29	10		mg/Kg	1	5/15/2018 3:54:44 AM	38039
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	5/15/2018 3:54:44 AM	38039
Surr: DNOP	113	70-130		%Rec	1	5/15/2018 3:54:44 AM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Surr: BFB	88.6	15-316		%Rec	1	5/10/2018 5:06:15 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.092		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Benzene	ND	0.023		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Toluene	ND	0.046		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Ethylbenzene	ND	0.046		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Xylenes, Total	ND	0.092		mg/Kg	1	5/10/2018 5:06:15 PM	38023
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/10/2018 5:06:15 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Ballard 2
Collection Date: 5/7/2018 12:18:00 PM
Lab ID: 1805496-008 **Matrix:** SOIL **Received Date:** 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	110	30		mg/Kg	20	5/15/2018 9:49:54 AM	38095
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	83	10		mg/Kg	1	5/15/2018 4:17:00 AM	38039
Motor Oil Range Organics (MRO)	490	50		mg/Kg	1	5/15/2018 4:17:00 AM	38039
Surr: DNOP	102	70-130		%Rec	1	5/15/2018 4:17:00 AM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Surr: BFB	84.5	15-316		%Rec	1	5/10/2018 5:29:44 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Benzene	ND	0.024		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Toluene	ND	0.048		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Ethylbenzene	ND	0.048		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Xylenes, Total	ND	0.096		mg/Kg	1	5/10/2018 5:29:44 PM	38023
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/10/2018 5:29:44 PM	38023

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Ballard 2
Collection Date: 5/7/2018 12:21:00 PM
Lab ID: 1805496-009
Matrix: SOIL
Received Date: 5/9/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/15/2018 10:09:27 AM	38095
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	61	10		mg/Kg	1	5/13/2018 5:24:52 PM	38039
Motor Oil Range Organics (MRO)	150	50		mg/Kg	1	5/13/2018 5:24:52 PM	38039
Surr: DNOP	104	70-130		%Rec	1	5/13/2018 5:24:52 PM	38039
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Surr: BFB	82.0	15-316		%Rec	1	5/10/2018 8:13:33 PM	38023
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Benzene	ND	0.024		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Toluene	ND	0.049		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2018 8:13:33 PM	38023
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	5/10/2018 8:13:33 PM	38023

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805496**

17-May-18

Client: Souder, Miller & Associates

Project: Ballard 2

Sample ID	**MB-38068**	SampType: **mblk**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **38068**			RunNo: **51214**					
Prep Date:	**5/11/2018**	Analysis Date: **5/11/2018**			SeqNo: **1664864**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-38068**	SampType: **lcs**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **38068**			RunNo: **51214**					
Prep Date:	**5/11/2018**	Analysis Date: **5/11/2018**			SeqNo: **1664865**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Sample ID	**MB-38091**	SampType: **mblk**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **38091**			RunNo: **51247**					
Prep Date:	**5/14/2018**	Analysis Date: **5/14/2018**			SeqNo: **1666509**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-38091**	SampType: **lcs**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **38091**			RunNo: **51247**					
Prep Date:	**5/14/2018**	Analysis Date: **5/14/2018**			SeqNo: **1666510**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.9	90	110			

Sample ID	**MB-38095**	SampType: **mblk**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **38095**			RunNo: **51299**					
Prep Date:	**5/14/2018**	Analysis Date: **5/15/2018**			SeqNo: **1667708**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-38095**	SampType: **lcs**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **38095**			RunNo: **51299**					
Prep Date:	**5/14/2018**	Analysis Date: **5/15/2018**			SeqNo: **1667709**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805496**

17-May-18

Client: Souder, Miller & Associates

Project: Ballard 2

Sample ID	**LCS-38039**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**38039**		RunNo:	**51216**				
Prep Date:	**5/10/2018**	Analysis Date:	**5/11/2018**		SeqNo:	**1664753**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.4	70	130			
Surr: DNOP	4.8		5.000		96.4	70	130			

Sample ID	**MB-38039**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**38039**		RunNo:	**51216**				
Prep Date:	**5/10/2018**	Analysis Date:	**5/11/2018**		SeqNo:	**1664754**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805496**

17-May-18

Client: Souder, Miller & Associates

Project: Ballard 2

Sample ID	**MB-38023**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**38023**	RunNo:	**51171**					
Prep Date:	**5/9/2018**	Analysis Date:	**5/10/2018**	SeqNo:	**1662961**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.2	15	316			

Sample ID	**LCS-38023**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**38023**	RunNo:	**51171**					
Prep Date:	**5/9/2018**	Analysis Date:	**5/10/2018**	SeqNo:	**1662962**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	75.9	131			
Surr: BFB	1100		1000		105	15	316			

Sample ID	**1805496-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**L1-4**	Batch ID:	**38023**	RunNo:	**51171**					
Prep Date:	**5/9/2018**	Analysis Date:	**5/10/2018**	SeqNo:	**1662965**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.6	23.11	0	106	77.8	128			
Surr: BFB	900		924.2		97.1	15	316			

Sample ID	**1805496-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**L1-4**	Batch ID:	**38023**	RunNo:	**51171**					
Prep Date:	**5/9/2018**	Analysis Date:	**5/10/2018**	SeqNo:	**1662966**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.61	0	100	77.8	128	0.554	20	
Surr: BFB	940		984.3		95.2	15	316	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805496**

17-May-18

Client: Souder, Miller & Associates

Project: Ballard 2

Sample ID **MB-38023**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **38023**	RunNo: **51171**
Prep Date: **5/9/2018**	Analysis Date: **5/10/2018**	SeqNo: **1663002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **LCS-38023**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **38023**	RunNo: **51171**
Prep Date: **5/9/2018**	Analysis Date: **5/10/2018**	SeqNo: **1663003** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.94	0.10	1.000	0	94.2	70.1	121			
Benzene	0.94	0.025	1.000	0	94.3	77.3	128			
Toluene	0.98	0.050	1.000	0	97.7	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	96.1	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	98.5	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1805496-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L2-5**	Batch ID: **38023**	RunNo: **51171**
Prep Date: **5/9/2018**	Analysis Date: **5/10/2018**	SeqNo: **1663007** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.98	0.093	0.9259	0	105	56.9	130			
Benzene	0.94	0.023	0.9259	0	101	68.5	133			
Toluene	0.98	0.046	0.9259	0.008949	105	75	130			
Ethylbenzene	0.98	0.046	0.9259	0	106	79.4	128			
Xylenes, Total	3.0	0.093	2.778	0.02792	108	77.3	131			
Surr: 4-Bromofluorobenzene	0.93		0.9259		101	80	120			

Sample ID **1805496-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L2-5**	Batch ID: **38023**	RunNo: **51171**
Prep Date: **5/9/2018**	Analysis Date: **5/10/2018**	SeqNo: **1663008** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.97	0.096	0.9606	0	101	56.9	130	0.557	20	
Benzene	0.96	0.024	0.9606	0	99.4	68.5	133	1.75	20	
Toluene	1.0	0.048	0.9606	0.008949	104	75	130	2.84	20	
Ethylbenzene	1.0	0.048	0.9606	0	105	79.4	128	3.10	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805496**

17-May-18

Client: Souder, Miller & Associates

Project: Ballard 2

Sample ID	**1805496-002AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**
Client ID:	**L2-5**	Batch ID:	**38023**	RunNo:	**51171**
Prep Date:	**5/9/2018**	Analysis Date:	**5/10/2018**	SeqNo:	**1663008** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.1	0.096	2.882	0.02792	107	77.3	131	2.86	20	
Surr: 4-Bromofluorobenzene	0.99		0.9606		103	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1805496 RcptNo: 1

Received By: Isaiah Ortiz 5/9/2018 9:30:00 AM IO

Completed By: Ashley Gallegos 5/9/2018 11:53:20 AM AG

Reviewed By: 05/09/18 Labeled by:

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day turn
☐ Standard ☐ Rush

Project Name: Ballard #2

Project #:

Project Manager: Austin Weyant

Sampler: Heather Patterson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.8

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1805496	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5/7/18	12:01	Soil	L1-4	4oz		-001	X		X					X				
	12:05		L2-5			-002	X		X					X				
	12:11		L3-3			-003	X		X					X				
	12:03		SW1			-004	X		X					X				
	12:08		SW2			-005	X		X					X				
	12:13		SW3			-006	X		X					X				
	12:15		SW4			-007	X		X					X				
	12:18		SW5			-008	X		X					X				
	12:21		SW6			-009	X		X					X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
				5/8/18	1500
5/8/18	1800		Received by: Carrie	Date	Time
				5/9/18	930

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 06, 2018

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

RE: Bailard OrderNo.: 1805E17

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/25/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Bailard
Collection Date: 5/23/2018 9:21:00 AM
Lab ID: 1805E17-001 **Matrix:** SOIL
Received Date: 5/25/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2018 9:10:14 PM	38346
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/30/2018 9:10:14 PM	38346
Surr: DNOP	94.3	70-130		%Rec	1	5/30/2018 9:10:14 PM	38346
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2018 9:37:44 PM	38338
Surr: BFB	95.5	15-316		%Rec	1	5/30/2018 9:37:44 PM	38338

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Bailard
Collection Date: 5/23/2018 9:42:00 AM
Lab ID: 1805E17-002 **Matrix:** SOIL **Received Date:** 5/25/2018 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/30/2018 9:32:26 PM	38346
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/30/2018 9:32:26 PM	38346
Surr: DNOP	95.8	70-130		%Rec	1	5/30/2018 9:32:26 PM	38346
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2018 10:01:17 PM	38338
Surr: BFB	90.9	15-316		%Rec	1	5/30/2018 10:01:17 PM	38338

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805E17**

06-Jun-18

Client: Souder, Miller & Associates

Project: Bailard

Sample ID	**MB-38440**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38440**	RunNo:	**51683**					
Prep Date:	**6/1/2018**	Analysis Date:	**6/1/2018**	SeqNo:	**1686268**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38440**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38440**	RunNo:	**51683**					
Prep Date:	**6/1/2018**	Analysis Date:	**6/1/2018**	SeqNo:	**1686269**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805E17**

06-Jun-18

Client: Souder, Miller & Associates

Project: Bailard

Sample ID **MB-38346**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **38346**	RunNo: **51598**
Prep Date: **5/29/2018**	Analysis Date: **5/30/2018**	SeqNo: **1682648** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.4	70	130			

Sample ID **LCS-38346**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38346**	RunNo: **51598**
Prep Date: **5/29/2018**	Analysis Date: **5/30/2018**	SeqNo: **1682649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	70	130			
Surr: DNOP	5.2		5.000		103	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805E17**

06-Jun-18

Client: Souder, Miller & Associates

Project: Bailard

Sample ID	**MB-38338**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**38338**		RunNo:	**51580**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681351**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.1	15	316			

Sample ID	**LCS-38338**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**38338**		RunNo:	**51580**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681352**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	75.9	131			
Surr: BFB	1100		1000		112	15	316			

Sample ID	**MB-38366**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**38366**		RunNo:	**51603**				
Prep Date:	**5/29/2018**	Analysis Date:	**5/30/2018**		SeqNo:	**1682799**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.9	15	316			

Sample ID	**LCS-38366**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**38366**		RunNo:	**51603**				
Prep Date:	**5/29/2018**	Analysis Date:	**5/30/2018**		SeqNo:	**1682800**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		106	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805E17**

06-Jun-18

Client: Souder, Miller & Associates

Project: Bailard

Sample ID	**MB-38338**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**38338**	RunNo:	**51580**					
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**	SeqNo:	**1681394**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	**LCS-38338**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**38338**	RunNo:	**51580**					
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**	SeqNo:	**1681396**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.96	0.10	1.000	0	95.7	70.1	121			
Benzene	0.91	0.025	1.000	0	91.3	77.3	128			
Toluene	0.94	0.050	1.000	0	93.6	79.2	125			
Ethylbenzene	0.93	0.050	1.000	0	93.2	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	94.5	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	**MB-38366**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**38366**	RunNo:	**51603**					
Prep Date:	**5/29/2018**	Analysis Date:	**5/30/2018**	SeqNo:	**1682840**	Units:	**%Rec**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	**LCS-38366**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**38366**	RunNo:	**51603**					
Prep Date:	**5/29/2018**	Analysis Date:	**5/30/2018**	SeqNo:	**1682841**	Units:	**%Rec**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1805E17 RcptNo: 1

Received By: Isaiah Ortiz 5/25/2018 9:15:00 AM

Completed By: Erin Melendrez 5/25/2018 9:54:22 AM

Reviewed By: JMO 5/25/18

Labled By: JB 05/25/18

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: (<2 or >12 unless noted) 2
Adjusted?
Checked by: JB 05/25/18

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5day

Project Name:
Ballard

Project #:

Project Manager:
Austin Weyant

Sampler: MCS

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.9

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4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1805E17	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5/23/18	9:21	soil	SW2	4oz.		-001			X									
	9:42		SW3			-002			X									
	10:00		Cellar 1			-003	X		X					X				
	10:10		Cellar 2			-004	X		X					X				

Date: 5/24/18 Time: 1030 Relinquished by: [signature]

Received by: [signature] Date: 5/24/18 Time: 1030

Date: 5/24/18 Time: 1900 Relinquished by: [signature]

Received by: [signature] Date: 5/25/18 Time: 915

Remarks: Marathon | BDS

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