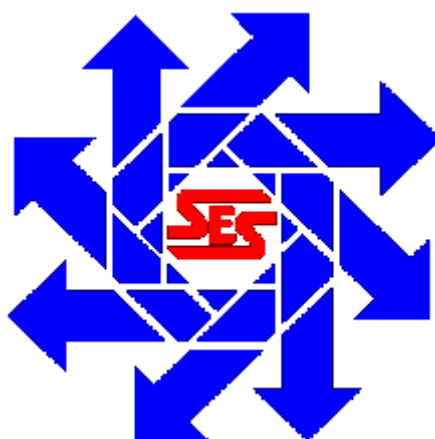


**Breitbart Operating LP**  
**Jalmat Sands Unit Water Injection Unit Battery**  
**Work Plan**

**Section 14, Township 22S, Range 35E**  
**Lea County, New Mexico**

**September 16, 2019**



**Prepared for:**

**Maverick Resources**  
**P.O. BOX 678**  
**Andrews, TX 79714**

**By:**

**Safety & Environmental Solutions, Inc.**  
**703 East Clinton Street**  
**Hobbs, New Mexico 88240**  
**(575) 397-0510**

## TABLE OF CONTENTS

<b>I. COMPANY CONTACTS.....</b>	<b>1</b>
<b>II. BACKGROUND .....</b>	<b>1</b>
<b>III. SURFACE AND GROUND WATER.....</b>	<b>1</b>
<b>IV. CHARACTERIZATION .....</b>	<b>1</b>
<b>V. WORK PERFORMED .....</b>	<b>2</b>
<b>VI. ACTION PLAN .....</b>	<b>2</b>
<b>VII. FIGURES &amp; APPENDICES.....</b>	<b>3</b>
Figure 1 – Site Map .....	4
Appendix A – C-141 .....	5
Appendix B – Groundwater .....	6
Appendix C – Analytical Results.....	7

**I. Company Contacts**

<b>Representative</b>	<b>Company</b>	<b>Telephone</b>	<b>E-mail</b>
Thomas Haigood	Maverick Resources	(432) 523-1807	Thomas.haigood@mavresources.com
Bob Allen	SESI	(575) 397-0510	ballen@sesi-nm.com

**II. Background**

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Maverick Resources to assess a spill at the Jalmat Sands Unit Water Injection Tank Battery. The spill area was mapped using a handheld Juno 3B. According to the mapped area the spill impacted approximately 514 square yards of pad area. This site is situated in Section 14, Township 22S, and Range 35E.

According to the C-141: A pump malfunctioned, not allowing the movement of water to the injection well. This caused the tanks to overflow. 90% of the fluid was captured inside the containment area. Maverick took proactive measures by dispatching a vac truck to recover the fluid. Some fluid overflowed the containment traversing the lease road. There was no impact to pasture areas.

**III. Surface and Ground Water**

There is no record of groundwater in the immediate vicinity of the site location. Further research of the New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 185' bgs., as documented for the depth to water in Section 14.

**IV. Characterization**

The target cleanup levels are determined using the NMAC 19.15.29 revisions dated July 24, 2018. The soil screening criteria presented below, and the applicable Recommended Remediation Action Levels (RRAL) for depths to groundwater >300' are 10 parts per million (ppm) Benzene, 50 ppm combined Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX), and 2,500 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level of 20,000 Mg/kg, furthermore 600 mg/kg (PPM) is also required for pasture impact.

Table 1 Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l	Constituent	Method*	Limit**
TDS			
<50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015B	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg

## V. Work Performed

On August 16, 2019 SESI personnel, were on site to advance soil auger holes, and map the spill area. Five auger hole locations were designated and flagged in order to delineate the spill area vertically, and horizontally. Soil samples were grabbed at surface and one-foot increments and field tested for Total Petroleum Hydrocarbons and Chlorides. All soil samples were properly packaged, preserved and transported to Hall Environmental Analysis Laboratory of Albuquerque, NM via chain of custody, and analyzed for TPH (total petroleum hydrocarbons) (Method 8015M), BTEX, and Chlorides (Method SM4500Cl-B). The lab results are recapped in the following table:

<b>Breitburn Operating LP</b> <b>Jalmat Sands Unit Battery</b> <b>Soil Sample Results: Cardinal Laboratories September 03, 2019</b>									
SAMPLE ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO	EXT DRO
SP-1 Surface	ND	ND	ND	ND	ND	790	ND	2400	2400
SP-1 @ 1ft	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-2 Surface	ND	ND	ND	ND	ND	41000	ND	1000	1000
SP-2 @ 1ft	ND	ND	ND	ND	ND	160	ND	ND	ND
SP-3 Surface	ND	ND	ND	ND	ND	510	ND	19000	15000
SP-3 @ 1ft	ND	ND	ND	ND	ND	1400	ND	260	810
SP-4 Surface	ND	ND	ND	ND	ND	1900	ND	14000	11000
SP-4 @ 1ft	ND	ND	ND	ND	ND	1000	ND	210	380
SP-5 Surface	ND	ND	ND	ND	ND	2500	ND	14000	11000
SP-5 @ 1ft	ND	ND	ND	ND	ND	630	ND	170	170

## VI. Action Plan

The results of the samples listed above indicate no BTEX present in any of the samples. SESI proposes to excavate the pad area, and interior of the berm to the extent that Recommended Remediation Levels are < 20,000 ppm for the Chloride Constituency, and < 2,500 ppm for Total Petroleum Hydrocarbons.

The horizontal extent of contamination will be determined by side wall samples to be taken at the time of excavation. Vertical remediation will be documented with bottom soil grab sample laboratory confirmation of RL's. It is estimated that a 1' bgs excavation will be necessary for the removal of impacted caliche. All contaminated soil will be transported to an NMOCD approved facility and documented via disposal manifests. The pad and interior bermed area will be backfilled with like material and returned to grade. Upon completion of approved remediation activity; all necessary closure documentation will be submitted to the appropriate regulatory agencies, and parties of concern.

## VII. Figures & Appendices

Figure 1 - Site Map  
Appendix A – C-141  
Appendix B – Groundwater  
Appendix C – Analytical Results  
Appendix D – Photo Documentation


# **Figure 1**

## **Site Map**


Jalmat Sands Unit Battery

**Legend**

-  Jalmat Battery
-  Line Measure
-  Sample Positions
-  Spill Area

 Jalmat Battery

SP1 Surface 

SP2 

SP3 

SP4 

SP5 



# **Appendix A**

## **C-141**

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Maverick Natural Resources, LLC	OGRID 370080
Contact Name Thomas Haigood	Contact Telephone (432)701-7802
Contact email: Thomas.haigood@mavresources.com	Incident # (assigned by OCD)
Contact mailing address PO Box 678 Andrews, TX	

### Location of Release Source

Latitude 32.398801 Longitude -103.336184  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jalmat Sands Unit Water Injection Unit	Site Type Tank Battery
Date Release Discovered 07-02-19	API# (if applicable)

Unit Letter	Section	Township	Range	County
B	14	22S	35E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☒ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)75	Volume Recovered (bbls)80
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

**Cause of Release:** The pump malfunctioned, not allowing movement of water to the injections well. This caused the tanks to over fill. 90% of the fluid was captured in the containment area, and a vac truck was dispatched to recover the fluid. Some fluid overflowed the containment traversing the lease road. An environmental company has been contacted to remediate the area in accordance with NMOCD guidelines.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major  
release as defined by  
19.15.29.7(A) NMAC?

If YES, for what reason(s) does the responsible party consider this a major release?

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name Thomas Haigood Title: HSE Coordinator

Signature:  Date: 07/08/19

email: [Thomas.haigood@mavresources.com](mailto:Thomas.haigood@mavresources.com)

Telephone: (432)701-7802

#### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?

185 (ft bgs)

Did this release impact groundwater or surface water?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?

☐ Yes ☒ No

Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?

☐ Yes ☒ No

Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?

☐ Yes ☒ No

Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?

☐ Yes ☒ No

Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a wetland?

☐ Yes ☒ No

Are the lateral extents of the release overlying a subsurface mine?

☐ Yes ☒ No

Are the lateral extents of the release overlying an unstable area such as karst geology?

☐ Yes ☒ No

Are the lateral extents of the release within a 100-year floodplain?

☐ Yes ☒ No

Did the release impact areas **not** on an exploration, development, production, or storage site?

☐ Yes ☒ No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name Thomas Haigood Title: **HSE Coordinator**Signature:  Date: **07/08/19**email: [Thomas.haigood@mavresources.com](mailto:Thomas.haigood@mavresources.com) Telephone: (432)701-7802**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name Thomas Haigood \_\_\_\_\_ Title: HSE Coordinator

Signature:  Date: 07/08/19

email: [Thomas.haigood@mavresources.com](mailto:Thomas.haigood@mavresources.com) Telephone: (432)701-7802

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# **Appendix B**

## **Groundwater**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

C=the file is  
closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub- basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
<a href="#">CP 00593 POD1</a>		CP	LE	4	4	06	22S	35E		650422	3587591*	62		
<a href="#">CP 00594 POD1</a>		CP	LE	2	1	34	22S	35E		654553	3580819*	98		
<a href="#">CP 00595 POD1</a>		CP	LE	2	2	20	22S	35E		652089	3584000*	96		
<a href="#">CP 00753</a>		CP	LE	2	2	14	22S	35E		656891	3585687*	215	185	30
Average Depth to Water:													185 feet	
Minimum Depth:													185 feet	
Maximum Depth:													185 feet	

**Record Count:** 4

**PLSS Search:**

**Township:** 22S **Range:** 35E

\*UTM location was derived from PLSS - see Help

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

9/11/19 2:13 PM

WATER COLUMN/ AVERAGE DEPTH TO  
WATER

# **Appendix C**

## **Analytical Results**



*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

September 03, 2019

Rebecca Pons  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX: (575) 393-4388

RE: Jalmat battery

OrderNo.: 1908C20

Dear Rebecca Pons:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/21/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**Date Reported: **9/3/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP1-Surface**Project:** Jalmat battery**Collection Date:** 8/16/2019**Lab ID:** 1908C20-001**Matrix:** SOIL**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	790	60		mg/Kg	20	8/27/2019 5:12:01 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	2400	100		mg/Kg	10	8/28/2019 9:44:02 AM	47038
Motor Oil Range Organics (MRO)	2400	500		mg/Kg	10	8/28/2019 9:44:02 AM	47038
Surr: DNOP	0	70-130	S	%Rec	10	8/28/2019 9:44:02 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/25/2019 8:48:23 AM	47024
Surr: BFB	88.7	77.4-118		%Rec	1	8/25/2019 8:48:23 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	8/25/2019 8:48:23 AM	47024
Toluene	ND	0.047		mg/Kg	1	8/25/2019 8:48:23 AM	47024
Ethylbenzene	ND	0.047		mg/Kg	1	8/25/2019 8:48:23 AM	47024
Xylenes, Total	ND	0.093		mg/Kg	1	8/25/2019 8:48:23 AM	47024
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	8/25/2019 8:48:23 AM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**Date Reported: **9/3/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP1 @1ft**Project:** Jalmat battery**Collection Date:** 8/16/2019**Lab ID:** 1908C20-002**Matrix:** SOIL**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	8/27/2019 5:24:26 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/28/2019 7:53:48 AM	47038
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/28/2019 7:53:48 AM	47038
Surr: DNOP	99.2	70-130		%Rec	1	8/28/2019 7:53:48 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2019 8:57:19 PM	47024
Surr: BFB	89.0	77.4-118		%Rec	1	8/24/2019 8:57:19 PM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/24/2019 8:57:19 PM	47024
Toluene	ND	0.048		mg/Kg	1	8/24/2019 8:57:19 PM	47024
Ethylbenzene	ND	0.048		mg/Kg	1	8/24/2019 8:57:19 PM	47024
Xylenes, Total	ND	0.097		mg/Kg	1	8/24/2019 8:57:19 PM	47024
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	8/24/2019 8:57:19 PM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report  
Lab Order **1908C20**  
Date Reported: **9/3/2019**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP2 Surface

**Project:** Jalmat battery

**Collection Date:** 8/16/2019

**Lab ID:** 1908C20-003

**Matrix:** SOIL

**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	41000	3000		mg/Kg	1E+	8/28/2019 5:05:52 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1000	99		mg/Kg	10	8/28/2019 8:15:49 AM	47038
Motor Oil Range Organics (MRO)	1000	500		mg/Kg	10	8/28/2019 8:15:49 AM	47038
Surr: DNOP	0	70-130	S	%Rec	10	8/28/2019 8:15:49 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2019 10:22:14 AM	47024
Surr: BFB	88.5	77.4-118		%Rec	1	8/25/2019 10:22:14 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/25/2019 10:22:14 AM	47024
Toluene	ND	0.049		mg/Kg	1	8/25/2019 10:22:14 AM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2019 10:22:14 AM	47024
Xylenes, Total	ND	0.099		mg/Kg	1	8/25/2019 10:22:14 AM	47024
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	8/25/2019 10:22:14 AM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**Date Reported: **9/3/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP2 @1ft**Project:** Jalmat battery**Collection Date:** 8/16/2019**Lab ID:** 1908C20-004**Matrix:** SOIL**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	160	60		mg/Kg	20	8/27/2019 5:49:14 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/28/2019 8:37:54 AM	47038
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/28/2019 8:37:54 AM	47038
Surr: DNOP	95.5	70-130		%Rec	1	8/28/2019 8:37:54 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/24/2019 10:32:42 PM	47024
Surr: BFB	93.8	77.4-118		%Rec	1	8/24/2019 10:32:42 PM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	8/24/2019 10:32:42 PM	47024
Toluene	ND	0.046		mg/Kg	1	8/24/2019 10:32:42 PM	47024
Ethylbenzene	ND	0.046		mg/Kg	1	8/24/2019 10:32:42 PM	47024
Xylenes, Total	ND	0.092		mg/Kg	1	8/24/2019 10:32:42 PM	47024
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	8/24/2019 10:32:42 PM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report  
Lab Order **1908C20**  
Date Reported: **9/3/2019**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP3-Surface

**Project:** Jalmat battery

**Collection Date:** 8/16/2019

**Lab ID:** 1908C20-005

**Matrix:** SOIL

**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	510	60		mg/Kg	20	8/27/2019 6:01:38 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	19000	950		mg/Kg	100	8/28/2019 8:59:57 AM	47038
Motor Oil Range Organics (MRO)	15000	4700		mg/Kg	100	8/28/2019 8:59:57 AM	47038
Surr: DNOP	0	70-130	S	%Rec	100	8/28/2019 8:59:57 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2019 10:56:29 PM	47024
Surr: BFB	102	77.4-118		%Rec	1	8/24/2019 10:56:29 PM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/24/2019 10:56:29 PM	47024
Toluene	ND	0.049		mg/Kg	1	8/24/2019 10:56:29 PM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2019 10:56:29 PM	47024
Xylenes, Total	ND	0.099		mg/Kg	1	8/24/2019 10:56:29 PM	47024
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	8/24/2019 10:56:29 PM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report  
Lab Order **1908C20**  
Date Reported: 9/3/2019

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP3 @ 1ft

**Project:** Jalmat battery

**Collection Date:** 8/16/2019

**Lab ID:** 1908C20-006

**Matrix:** SOIL

**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	1400	60		mg/Kg	20	8/27/2019 6:14:02 AM	47069
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	260	94		mg/Kg	10	8/28/2019 9:22:04 AM	47038
Motor Oil Range Organics (MRO)	810	470		mg/Kg	10	8/28/2019 9:22:04 AM	47038
Surr: DNOP	0	70-130	S	%Rec	10	8/28/2019 9:22:04 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2019 11:44:01 PM	47024
Surr: BFB	92.2	77.4-118		%Rec	1	8/24/2019 11:44:01 PM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/24/2019 11:44:01 PM	47024
Toluene	ND	0.049		mg/Kg	1	8/24/2019 11:44:01 PM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2019 11:44:01 PM	47024
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2019 11:44:01 PM	47024
Surr: 4-Bromofluorobenzene	91.5	80-120		%Rec	1	8/24/2019 11:44:01 PM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**

Date Reported: **9/3/2019**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP4- Surface

**Project:** Jalmat battery

**Collection Date:** 8/16/2019

**Lab ID:** 1908C20-007

**Matrix:** SOIL

**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	1900	59		mg/Kg	20	8/27/2019 4:28:55 PM	47084
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	14000	970		mg/Kg	100	8/28/2019 8:00:12 AM	47038
Motor Oil Range Organics (MRO)	11000	4800		mg/Kg	100	8/28/2019 8:00:12 AM	47038
Surr: DNOP	0	70-130	S	%Rec	100	8/28/2019 8:00:12 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2019 11:09:00 AM	47024
Surr: BFB	85.7	77.4-118		%Rec	1	8/25/2019 11:09:00 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/25/2019 11:09:00 AM	47024
Toluene	ND	0.049		mg/Kg	1	8/25/2019 11:09:00 AM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2019 11:09:00 AM	47024
Xylenes, Total	ND	0.098		mg/Kg	1	8/25/2019 11:09:00 AM	47024
Surr: 4-Bromofluorobenzene	85.2	80-120		%Rec	1	8/25/2019 11:09:00 AM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**Date Reported: **9/3/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP4 @1 ft**Project:** Jalmat battery**Collection Date:** 8/16/2019**Lab ID:** 1908C20-008**Matrix:** SOIL**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	1000	60		mg/Kg	20	8/27/2019 4:41:20 PM	47084
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	210	8.5		mg/Kg	1	8/28/2019 10:50:33 AM	47038
Motor Oil Range Organics (MRO)	380	43		mg/Kg	1	8/28/2019 10:50:33 AM	47038
Surr: DNOP	102	70-130		%Rec	1	8/28/2019 10:50:33 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2019 12:32:32 AM	47024
Surr: BFB	101	77.4-118		%Rec	1	8/25/2019 12:32:32 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/25/2019 12:32:32 AM	47024
Toluene	ND	0.049		mg/Kg	1	8/25/2019 12:32:32 AM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2019 12:32:32 AM	47024
Xylenes, Total	ND	0.097		mg/Kg	1	8/25/2019 12:32:32 AM	47024
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/25/2019 12:32:32 AM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1908C20**Date Reported: **9/3/2019****CLIENT:** Safety & Environmental Solutions**Client Sample ID:** SP5-Surface**Project:** Jalmat battery**Collection Date:** 8/16/2019**Lab ID:** 1908C20-009**Matrix:** SOIL**Received Date:** 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	2500	150		mg/Kg	50	8/30/2019 3:16:08 AM	47084
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	14000	900		mg/Kg	100	8/28/2019 8:48:55 AM	47038
Motor Oil Range Organics (MRO)	11000	4500		mg/Kg	100	8/28/2019 8:48:55 AM	47038
Surr: DNOP	0	70-130	S	%Rec	100	8/28/2019 8:48:55 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/25/2019 12:56:36 AM	47024
Surr: BFB	118	77.4-118	S	%Rec	1	8/25/2019 12:56:36 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/25/2019 12:56:36 AM	47024
Toluene	ND	0.049		mg/Kg	1	8/25/2019 12:56:36 AM	47024
Ethylbenzene	ND	0.049		mg/Kg	1	8/25/2019 12:56:36 AM	47024
Xylenes, Total	ND	0.098		mg/Kg	1	8/25/2019 12:56:36 AM	47024
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/25/2019 12:56:36 AM	47024

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report  
Lab Order 1908C20  
Date Reported: 9/3/2019

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP5 @1 ft

Project: Jalmat battery

Collection Date: 8/16/2019

Lab ID: 1908C20-010

Matrix: SOIL

Received Date: 8/21/2019 9:02:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	630	60		mg/Kg	20	8/27/2019 5:30:57 PM	47084
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	170	10		mg/Kg	1	8/28/2019 9:13:19 AM	47038
Motor Oil Range Organics (MRO)	170	51		mg/Kg	1	8/28/2019 9:13:19 AM	47038
Surr: DNOP	116	70-130		%Rec	1	8/28/2019 9:13:19 AM	47038
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/25/2019 1:45:15 AM	47024
Surr: BFB	101	77.4-118		%Rec	1	8/25/2019 1:45:15 AM	47024
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/25/2019 1:45:15 AM	47024
Toluene	ND	0.050		mg/Kg	1	8/25/2019 1:45:15 AM	47024
Ethylbenzene	ND	0.050		mg/Kg	1	8/25/2019 1:45:15 AM	47024
Xylenes, Total	ND	0.099		mg/Kg	1	8/25/2019 1:45:15 AM	47024
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	1	8/25/2019 1:45:15 AM	47024

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1908C20

03-Sep-19

Client: Safety &amp; Environmental Solutions

Project: Jalmat battery

Sample ID: <b>MB-47069</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47069</b>	RunNo: <b>62418</b>								
Prep Date: <b>8/26/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2122979</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-47069</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47069</b>	RunNo: <b>62418</b>								
Prep Date: <b>8/26/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2122980</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Sample ID: <b>MB-47084</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47084</b>	RunNo: <b>62447</b>								
Prep Date: <b>8/27/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2124844</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-47084</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47084</b>	RunNo: <b>62447</b>								
Prep Date: <b>8/27/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2124845</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.0	90	110			

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1908C20

03-Sep-19

Client: Safety &amp; Environmental Solutions

Project: Jalmat battery

Sample ID: <b>LCS-47038</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47038</b>	RunNo: <b>62445</b>								
Prep Date: <b>8/26/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2123537</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	63.9	124			
Surr: DNOP	4.8		5.000		96.8	70	130			

Sample ID: <b>MB-47038</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47038</b>	RunNo: <b>62445</b>								
Prep Date: <b>8/26/2019</b>	Analysis Date: <b>8/27/2019</b>	SeqNo: <b>2123538</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID: <b>LCS-47122</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47122</b>	RunNo: <b>62465</b>								
Prep Date: <b>8/28/2019</b>	Analysis Date: <b>8/29/2019</b>	SeqNo: <b>2127327</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.1	70	130			

Sample ID: <b>MB-47122</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47122</b>	RunNo: <b>62465</b>								
Prep Date: <b>8/28/2019</b>	Analysis Date: <b>8/29/2019</b>	SeqNo: <b>2127328</b>			Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1908C20

03-Sep-19

Client: Safety &amp; Environmental Solutions

Project: Jalmat battery

Sample ID: <b>MB-47024</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120907</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.3	77.4	118			

Sample ID: <b>LCS-47024</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120908</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.1	80	120			
Surr: BFB	1100		1000		106	77.4	118			

Sample ID: <b>1908C20-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SP1-Surface</b>	Batch ID: <b>47024</b>	RunNo: <b>62396</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/25/2019</b>	SeqNo: <b>2120965</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.30	0	84.0	69.1	142			
Surr: BFB	970		971.8		100	77.4	118			

Sample ID: <b>1908C20-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SP1-Surface</b>	Batch ID: <b>47024</b>	RunNo: <b>62396</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/25/2019</b>	SeqNo: <b>2120966</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.34	0	83.6	69.1	142	0.283	20	
Surr: BFB	980		973.7		101	77.4	118	0	0	

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1908C20

03-Sep-19

Client: Safety &amp; Environmental Solutions

Project: Jalmat battery

Sample ID: <b>MB-47024</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120945</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.7	80	120			

Sample ID: <b>LCS-47024</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120946</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.5	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	80	120			

Sample ID: <b>1908C20-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP1 @1ft</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120949</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9737	0.01163	106	76	123			
Toluene	1.1	0.049	0.9737	0.009302	111	80.3	127			
Ethylbenzene	1.1	0.049	0.9737	0	115	80.2	131			
Xylenes, Total	3.3	0.097	2.921	0.01744	114	78	133			
Surr: 4-Bromofluorobenzene	0.95		0.9737		97.4	80	120			

Sample ID: <b>1908C20-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SP1 @1ft</b>	Batch ID: <b>47024</b>	RunNo: <b>62394</b>								
Prep Date: <b>8/23/2019</b>	Analysis Date: <b>8/24/2019</b>	SeqNo: <b>2120950</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.023	0.9225	0.01163	103	76	123	8.73	20	
Toluene	1.0	0.046	0.9225	0.009302	107	80.3	127	8.80	20	
Ethylbenzene	1.0	0.046	0.9225	0	110	80.2	131	9.55	20	
Xylenes, Total	3.1	0.092	2.768	0.01744	110	78	133	9.07	20	
Surr: 4-Bromofluorobenzene	0.91		0.9225		98.8	80	120	0	0	

### Qualifiers:

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

# Sample Log-In Check List

Client Name: **Safety Env Solutions**

Work Order Number: **1908C20**

RcptNo: 1

Received By: **Isaiah Ortiz**

8/21/2019 9:02:00 AM

Completed By: **Leah Baca**

8/21/2019 12:41:38 PM

Reviewed By: **ENM**

8/23/19

*IOx*

*Leah Baca*

## 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? Yes ☒ No ☐  
(Note discrepancies on chain of custody)
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? Yes ☒ No ☐  
(If no, notify customer for authorization.)

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

Adjusted? \_\_\_\_\_

Checked by: **DAD 8/23/19**

## Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

## 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			
2	2.3	Good	Yes			

# Chain-of-Custody Record

Client: SEST

Mailing Address:

203 E. Lincoln, Hobbs

Phone #: 575-397-0510

email or Fax#: 0888-222-0551

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Delmont Battery

Project #:

MAV-019-04

Project Manager:

Rubena Pons

Sampler: R. Martinez

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp (including CP): 28-01(°C) 27.5

Container Type and #

Preservative Type

HEALING NO.

24-01(°C) 23.5

19087020

1332114

-001

-002

-003

-004

-005

-006

-007

-008

-009

-010

Date: 8/20 Time: 8:15

Relinquished by: Rubena Pons

Date: 8/20/19 Time: 1900

Relinquished by: [Signature]

Date: 8/20/19 Time: 1900

Relinquished by: [Signature]

Date: 8/20/19 Time: 1900

Relinquished by: [Signature]

Date: 8/20/19 Time: 1900

Received by: [Signature]

Date: 8/20/19 Time: 0815

Via: [Signature]

Date: 8/20/19 Time: 0815

Via: [Signature]

Date: 8/20/19 Time: 0815

Via: [Signature]

Date: 8/20/19 Time: 0815

Via: [Signature]

Remarks:

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCBs

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

8270 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Q, F, Br, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>

MTBE / TMBs (8021)

BTEX

✓

✓

✓

✓

✓

✓

✓

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## **Appendix D**

### **Site Photos**

**Maverick Resources  
Jalmat Sands Unit Injection Battery**



**Maverick Resources  
Jalmat Sands Unit Injection Battery**

