Sample point 1 and 2 both need to be completed before approval for any work plan can be determined.

RECEIVED
By JKeyes at 11:12 am, Mar 28, 2016

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 [illegible]
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

XInitial Report Final Report

Name of Company Matador Resources Company	Contact Catherine Green
Address 500 N Main St Suite 1 Roswell NM 88201	Telephone No. 575-623-6601
Facility Name Federal AF 1	Facility Type Oil

Surface Owner	Mineral Owner Federal	API No.30-025-27406

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	~~18~~ 8	~~[illegible]~~ 18S	32E	1980	S	1980	W	Lea

Latitude 32.7602425 **Longitude -103.7907257**

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 10 barrels	Volume Recovered 0
Source of Release tank over flowed	Date and Hour of Occurrence March 26-27, 2016	Date and Hour of Discovery March 27, 2016 11:00 am
Was Immediate Notice Given? XYes No Not Required	If YES, To Whom? Larry Brigance, foreman	
By Whom? Anthony Sanchez	Date and Hour March 27, 2016 11:30	
Was a Watercourse Reached? Yes XNo	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Pumper miscalculated volume of water in tank. Did not call for water disposal truck in timely manner. Water spilled into containment. Remediation firm will collect soil samples, remove contaminated soil and replace.		

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.

Signature: Catherine Green	OIL CONSERVATION DIVISION	
Printed Name: Catherine Green	Approved by Environmental Specialist:	
Title: Regulatory Analyst	Approval Date: 03/28/2016	Expiration Date: 05/28/2016
E-mail Address: cgreen@matadorresources.com	Conditions of Approval:	
Date:March 28, 2016 Phone: 575-623-6601	Discrete site samples only. Delineate and remediate per NMOCD guidelines.	Attached 1RP 4225

* Attach Additional Sheets If Necessary

nJXK1608840214
pJXK1608840286

2RP-4225

Investigation Summary and Work Plan

Federal AF #1

June 21, 2016

Introduction

This summary and work plan by Matador Resources details knowledge and plans for remediation of the Federal AF #1 spill between March 26 and 27, 2016. The Federal AF #1 is located in Section 8, Township 18S, Range 32E of Eddy County, NM. This is a federal lease. The geodetic position is 32°45.61455 N, 103°47.44354W. The release occurred between March 26 and 27, 2016. Approximately 10 barrels of fluid overflowed the produced water vessel. 0 barrels were recovered. The release was reported to the New Mexico Oil Conservation Division Artesia office on March 28, 2016. OCD issued remediation project (RP) number ~~2RP~~ 1RP-4225. Attachments include surveys, pictures, and map.

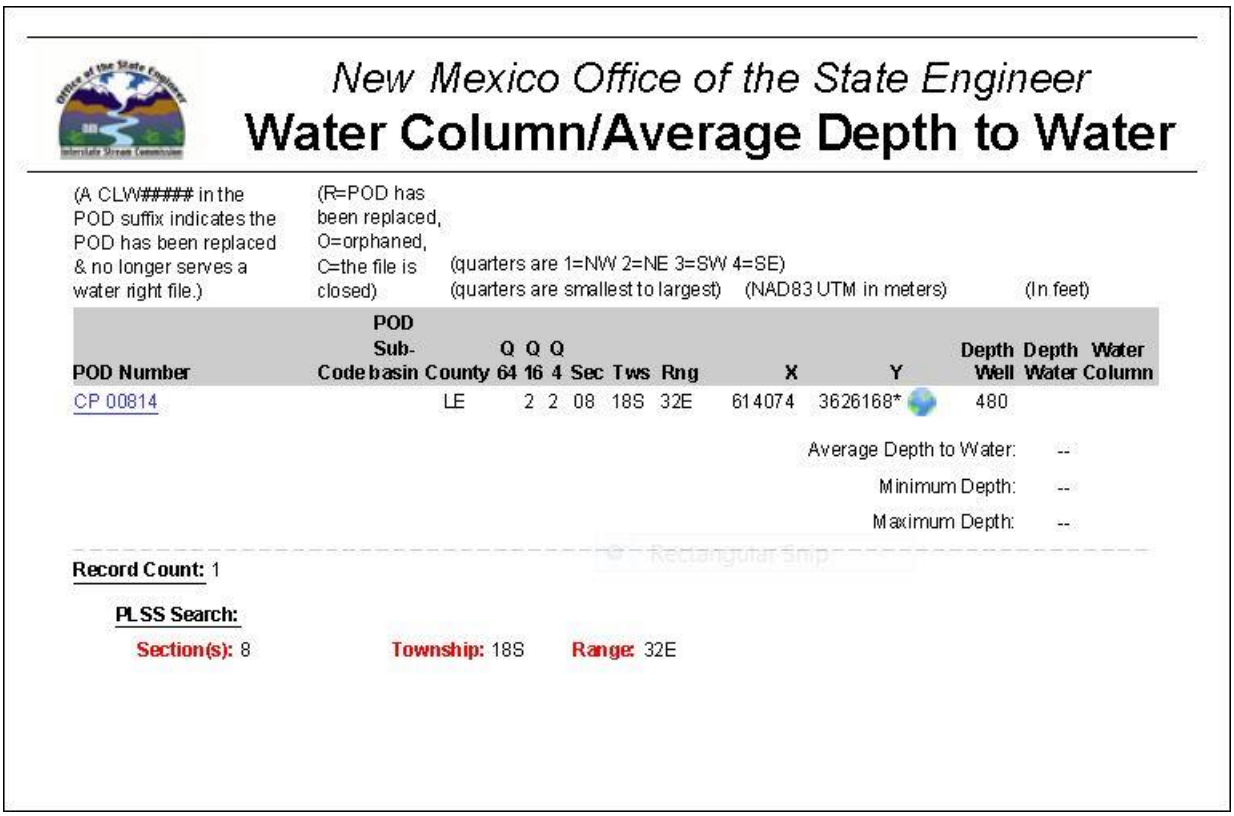
Setting

The setting is as follows:

- The surface elevation is approximately 3,756 feet above sea level.
- The topography is undulating sands with Kermit soils and dune land, along with Pyote and maljamar fine sands.
- Groundwater depth is unknown or not present according to records from the New Mexico Office of the State Engineer (OSE)
- No fresh water wells in the area. (See attached OSE water well reports)

Remediation Action

Collect soil samples at a minimum depth of 24 inches below surface near fire source to be analyzed by Cardinal Labs in Hobbs, NM. Upon return of results, determine whether or not soil needs to be remediated deeper than 24 inches below surface.



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 Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00814			LE	2	2		08	18S	32E	614074	3626168*	480		

Average Depth to Water: --

Minimum Depth: --

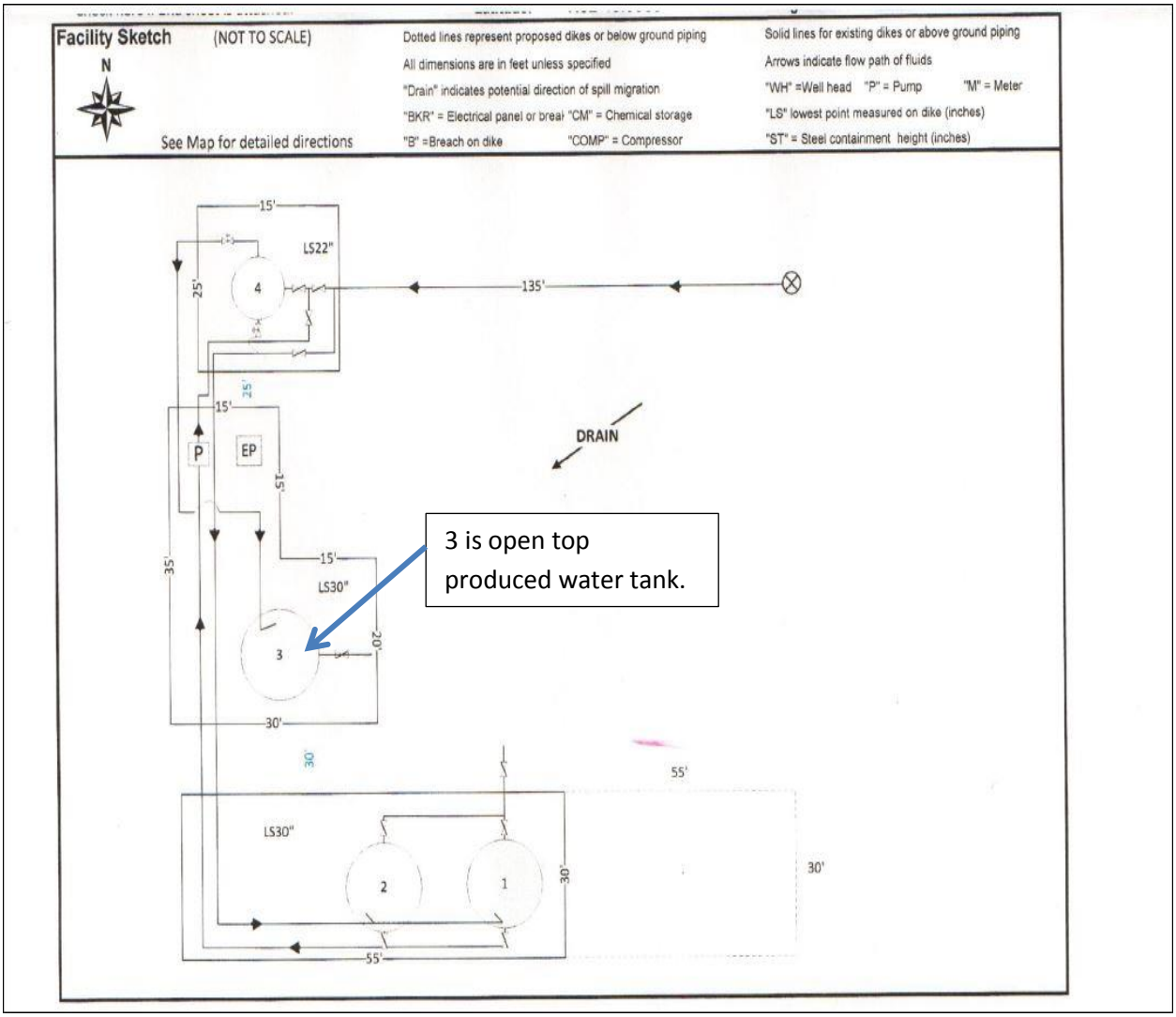
Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 8 **Township:** 18S **Range:** 32E

As can be seen above, one well has been drilled. However the depth of the well is 480 ft. This well was drilled in 1965 and water depth is blank.


Facility Sketch
(NOT TO SCALE)
N
See Map for detailed directions
Dotted lines represent proposed dikes or below ground piping
All dimensions are in feet unless specified
"Drain" indicates potential direction of spill migration
"BKR" = Electrical panel or breal "CM" = Chemical storage
"B" =Breach on dike "COMP" = Compressor
Solid lines for existing dikes or above ground piping
Arrows indicate flow path of fluids
"WH" =Well head "P" = Pump "M" = Meter
"LS" lowest point measured on dike (inches)
"ST" = Steel containment height (inches)
15'
LS22"
4
25'
135'
25'
15'
P
EP
15'
DRAIN
3 is open top produced water tank.
35'
15'
LS30"
3
20'
30'
30'
55'
LS30"
2
1
30'
30'
55'


2
0

Remediation Actions

Soil samples were collected as shown on the attached plat at the surface around the spill site.

The table depicting the results BTEX, TPH, and Chlorides is shown below.

Analytical Report- 1605A72	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1605A72-001	L1	5/19/2016	0.5'	BDL	BDL	BDL	BDL	160
1605A72-002	L1-1	5/19/2016	1'	N/A	N/A	N/A	N/A	390
1605A72-003	L1-2	5/19/2016	2'	N/A	N/A	N/A	N/A	BDL
1605A72-004	L1-3	5/19/2016	3'	N/A	N/A	N/A	N/A	2500
1605A72-005	L2	5/19/2016	0.5'	BDL	BDL	BDL	BDL	580
1605A72-006	L2-1	5/19/2016	1'	N/A	N/A	N/A	N/A	45
1605A72-007	L2-2	5/19/2016	2'	N/A	N/A	N/A	N/A	2000
1605A72-008	L2-3	5/19/2016	3'	N/A	N/A	N/A	N/A	N/A
1605A72-009	L2-4	5/19/2016	4'	N/A	N/A	N/A	N/A	2300
1605A72-010	L3	5/19/2016	0.5	BDL	BDL	BDL	250	8200
1605A72-011	L3-1	5/19/2016	1'	N/A	N/A	N/A	N/A	4600
1605A72-012	L3-2	5/19/2016	2'	N/A	N/A	N/A	N/A	1600
1605A72-013	L3-3	5/19/2016	3'	N/A	N/A	N/A	N/A	260
1605A72-014	L3-4	5/19/2016	4'	N/A	N/A	N/A	N/A	470

The results of the soil analysis are attached for further investigation. Matador proposes to remove up to 4 feet of contaminated soil and replace with top soil from a local vendor.

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 27, 2016

JUSTIN ROBERTS

DIAMONDBACK DISPOSAL SERVICE INC.

P. O. BOX 2491

HOBBS, NM 88241

RE: FEDERAL AF #1

Enclosed are the results of analyses for samples received by the laboratory on 04/21/16 8:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC.
JUSTIN ROBERTS
P. O. BOX 2491
HOBBS NM, 88241
Fax To: (575) 392-9376

Received:	04/21/2016	Sampling Date:	04/20/2016
Reported:	04/27/2016	Sampling Type:	Soil
Project Name:	FEDERAL AF #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SURFACE CONFIRMATION (H600867-01)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2016	ND	2.03	101	2.00	0.809	
Toluene*	<0.050	0.050	04/22/2016	ND	1.96	98.0	2.00	0.581	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.77	88.7	2.00	0.792	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.46	90.9	6.00	0.270	
Total BTEX	<0.300	0.300	04/22/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.6 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**17800**	16.0	04/26/2016	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	**40.2**	10.0	04/22/2016	ND	217	109	200	11.4	

Surrogate: 1-Chlorooctane *98.4 %* *35-147*

Surrogate: 1-Chlorooctadecane *115 %* *28-171*

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC.
JUSTIN ROBERTS
P. O. BOX 2491
HOBBS NM, 88241
Fax To: (575) 392-9376

Received:	04/21/2016	Sampling Date:	04/20/2016
Reported:	04/27/2016	Sampling Type:	Soil
Project Name:	FEDERAL AF #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: 2' BGS CONFIRMATION (H600867-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2016	ND	2.03	101	2.00	0.809	
Toluene*	<0.050	0.050	04/22/2016	ND	1.96	98.0	2.00	0.581	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.77	88.7	2.00	0.792	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.46	90.9	6.00	0.270	
Total BTEX	<0.300	0.300	04/22/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.6 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	04/26/2016	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	**14.7**	10.0	04/22/2016	ND	217	109	200	11.4	

Surrogate: 1-Chlorooctane *92.5 %* *35-147*

Surrogate: 1-Chlorooctadecane *111 %* *28-171*

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

DIAMONDBACK DISPOSAL SERVICE INC.
JUSTIN ROBERTS
P. O. BOX 2491
HOBBS NM, 88241
Fax To: (575) 392-9376

Received:	04/21/2016	Sampling Date:	04/20/2016
Reported:	04/27/2016	Sampling Type:	Soil
Project Name:	FEDERAL AF #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: 4' BGS CONFIRMATION (H600867-03)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2016	ND	2.03	101	2.00	0.809	
Toluene*	<0.050	0.050	04/22/2016	ND	1.96	98.0	2.00	0.581	
Ethylbenzene*	<0.050	0.050	04/22/2016	ND	1.77	88.7	2.00	0.792	
Total Xylenes*	<0.150	0.150	04/22/2016	ND	5.46	90.9	6.00	0.270	
Total BTEX	<0.300	0.300	04/22/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.2 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	04/26/2016	ND	416	104	400	3.92	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/22/2016	ND	188	93.9	200	8.09	
DRO >C10-C28	**48.6**	10.0	04/22/2016	ND	217	109	200	11.4	

Surrogate: 1-Chlorooctane *85.6 %* *35-147*

Surrogate: 1-Chlorooctadecane *106 %* *28-171*

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	Diamondback Disposal	BILL TO P.O. #:	
Project Manager:	Justin Roberts	Company:	
Address:	P.O. Box 2491	Attn:	
City:	Hobbs State: NM Zip: 88241	Address:	
Phone #:	575-392-9996 Fax #: 575-392-9374	City:	
Project #:	N/A Project Owner: Mattador	State: Zip:	
Project Name:	Federal AF #2	Phone #:	
Project Location:	N/A	Fax #:	
Sampler Name:	Justin Roberts		

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	TPH	BTEX	Cl
H600867																	
1	Surface Confirmation	G	1			X					X		4-20-16	10:18	X	X	X
2	2' BGS Confirmation	G	1			X					X		4-20-16	10:35	X	X	X
3	4' BGS Confirmation	G	1			X					X		4-20-16	10:39	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 4/21/16	Received By: Jodi Henson	Phone Result: ☐ Yes ☐	
	Time: 8:40		Fax Result: ☐ Yes ☐	
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: -5°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) JH

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Corrected -4.9°C #54

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 02, 2016

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

RE: Fed AF 1 OrderNo.: 1605A72

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 14 sample(s) on 5/24/2016 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 qualifers 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

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-0.5
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-001 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	160	30		mg/Kg	20	5/26/2016 4:47:26 PM	25539
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/27/2016 10:48:22 PM	25495
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/27/2016 10:48:22 PM	25495
Surr: DNOP	102	70-130		%Rec	1	5/27/2016 10:48:22 PM	25495
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Surr: BFB	121	80-120	S	%Rec	1	5/25/2016 2:17:08 PM	25461
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Benzene	ND	0.023		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Toluene	ND	0.047		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Ethylbenzene	ND	0.047		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Xylenes, Total	ND	0.094		mg/Kg	1	5/25/2016 2:17:08 PM	25461
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	5/25/2016 2:17:08 PM	25461

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-002 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	390	30		mg/Kg	20	5/31/2016 3:27:15 PM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-2
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-003 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	ND	30		mg/Kg	20	5/31/2016 3:39:40 PM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-3
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-004 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	2500	75		mg/Kg	50	6/2/2016 4:21:13 AM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-005 **Matrix:** SOIL

Client Sample ID: L2-0.5
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	580	30		mg/Kg	20	5/31/2016 4:54:09 PM	25583
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/27/2016 11:10:11 PM	25495
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/27/2016 11:10:11 PM	25495
Surr: DNOP	101	70-130		%Rec	1	5/27/2016 11:10:11 PM	25495
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Surr: BFB	113	80-120		%Rec	1	5/25/2016 2:40:37 PM	25461
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Benzene	ND	0.023		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Toluene	ND	0.047		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Ethylbenzene	ND	0.047		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Xylenes, Total	ND	0.094		mg/Kg	1	5/25/2016 2:40:37 PM	25461
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	5/25/2016 2:40:37 PM	25461

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-006 **Matrix:** SOIL

Client Sample ID: L1-1
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	45	30		mg/Kg	20	5/31/2016 5:06:33 PM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-007
Matrix: SOIL
Client Sample ID: L1-2
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	2000	75		mg/Kg	50	6/2/2016 4:33:38 AM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-008
Matrix: SOIL
Client Sample ID: L1-3
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	ND	30		mg/Kg	20	5/31/2016 5:31:23 PM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-009
Matrix: SOIL
Client Sample ID: L2-4
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	2300	75		mg/Kg	50	6/2/2016 4:46:03 AM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-0.5
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-010 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	8200	300		mg/Kg	200	6/2/2016 4:58:27 AM	25583
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	100	10		mg/Kg	1	5/27/2016 11:31:47 PM	25495
Motor Oil Range Organics (MRO)	150	50		mg/Kg	1	5/27/2016 11:31:47 PM	25495
Surr: DNOP	120	70-130		%Rec	1	5/27/2016 11:31:47 PM	25495
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Surr: BFB	113	80-120		%Rec	1	5/25/2016 3:04:08 PM	25461
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Benzene	ND	0.025		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Toluene	ND	0.050		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Ethylbenzene	ND	0.050		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Xylenes, Total	ND	0.10		mg/Kg	1	5/25/2016 3:04:08 PM	25461
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	5/25/2016 3:04:08 PM	25461

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-011 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	4600	150		mg/Kg	100	6/2/2016 5:10:52 AM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-2
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-012 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1600	75		mg/Kg	50	6/2/2016 5:23:17 AM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-3
Project: Fed AF 1
Collection Date: 5/19/2016 3:00:00 PM
Lab ID: 1605A72-013 **Matrix:** SOIL **Received Date:** 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	260	30		mg/Kg	20	5/31/2016 6:33:26 PM	25583

Analytical Report
Lab Order **1605A72**
Date Reported: **6/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Fed AF 1
Lab ID: 1605A72-014 **Matrix:** SOIL

Client Sample ID: L3-4
Collection Date: 5/19/2016 3:00:00 PM
Received Date: 5/24/2016 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	470	30		mg/Kg	20	5/31/2016 7:10:40 PM	25583

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605A72

02-Jun-16

Client: Souder, Miller & Associates

Project: Fed AF 1

Sample ID	MB-25539	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25539	RunNo:	34533					
Prep Date:	5/26/2016	Analysis Date:	5/26/2016	SeqNo:	1065112	Units:	mg/Kg			

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

Sample ID	LCS-25539	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25539	RunNo:	34533					
Prep Date:	5/26/2016	Analysis Date:	5/26/2016	SeqNo:	1065113	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID	MB-25583	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25583	RunNo:	34591					
Prep Date:	5/31/2016	Analysis Date:	5/31/2016	SeqNo:	1066733	Units:	mg/Kg			

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

Sample ID	LCS-25583	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25583	RunNo:	34591					
Prep Date:	5/31/2016	Analysis Date:	5/31/2016	SeqNo:	1066734	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.2	90	110			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605A72

02-Jun-16

Client: Souder, Miller & Associates

Project: Fed AF 1

Sample ID	LCS-25495	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25495		RunNo:	34525				
Prep Date:	5/25/2016	Analysis Date:	5/27/2016		SeqNo:	1065528	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	62.6	124			
Surr: DNOP	4.4		5.000		87.4	70	130			

Sample ID	MB-25495	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25495		RunNo:	34525				
Prep Date:	5/25/2016	Analysis Date:	5/27/2016		SeqNo:	1065529	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	9.6		10.00		95.8	70	130			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605A72

02-Jun-16

Client: Souder, Miller & Associates

Project: Fed AF 1

Sample ID **MB-25461** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **25461** RunNo: **34464**

Prep Date: **5/24/2016** Analysis Date: **5/25/2016** SeqNo: **1063448** 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	1.1		1.000		114	80	120			

Sample ID **LCS-25461** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **25461** RunNo: **34464**

Prep Date: **5/24/2016** Analysis Date: **5/25/2016** SeqNo: **1063449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.1	0.10	1.000	0	111	61	143			
Benzene	1.1	0.025	1.000	0	106	75.3	123			
Toluene	1.1	0.050	1.000	0	106	80	124			
Ethylbenzene	1.0	0.050	1.000	0	103	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	103	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1605A72

02-Jun-16

Client: Souder, Miller & Associates

Project: Fed AF 1

Sample ID **MB-25461** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **25461** RunNo: **34464**

Prep Date: **5/24/2016** Analysis Date: **5/25/2016** SeqNo: **1063427** 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	1100		1000		110	80	120			

Sample ID **LCS-25461** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **25461** RunNo: **34464**

Prep Date: **5/24/2016** Analysis Date: **5/25/2016** SeqNo: **1064053** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.9	80	120			
Surr: BFB	1200		1000		121	80	120			S

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: **1605A72** RcptNo: 1

Received by/date: 05/24/16

Logged By: **Ashley Gallegos** **5/24/2016 9:40:00 AM**

Completed By: **Ashley Gallegos** **5/24/2016 11:24:36 AM**

Reviewed By: 05/24/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. 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:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			

Chain-of-Custody Record

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

Client: Souder Miller & Associates	Turn-Around Time: ☐ Standard ☐ Rush
Mailing Address:	Project Name: Fed AF #1
	Project #:
Phone #:	
Email or Fax#:	Project Manager: Austin Weyant
QA/QC Package: Standard ☐ Level 4 (Full Validation)	Sampler: LCM
Accreditation: ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 3.6-1.0CF=2.6

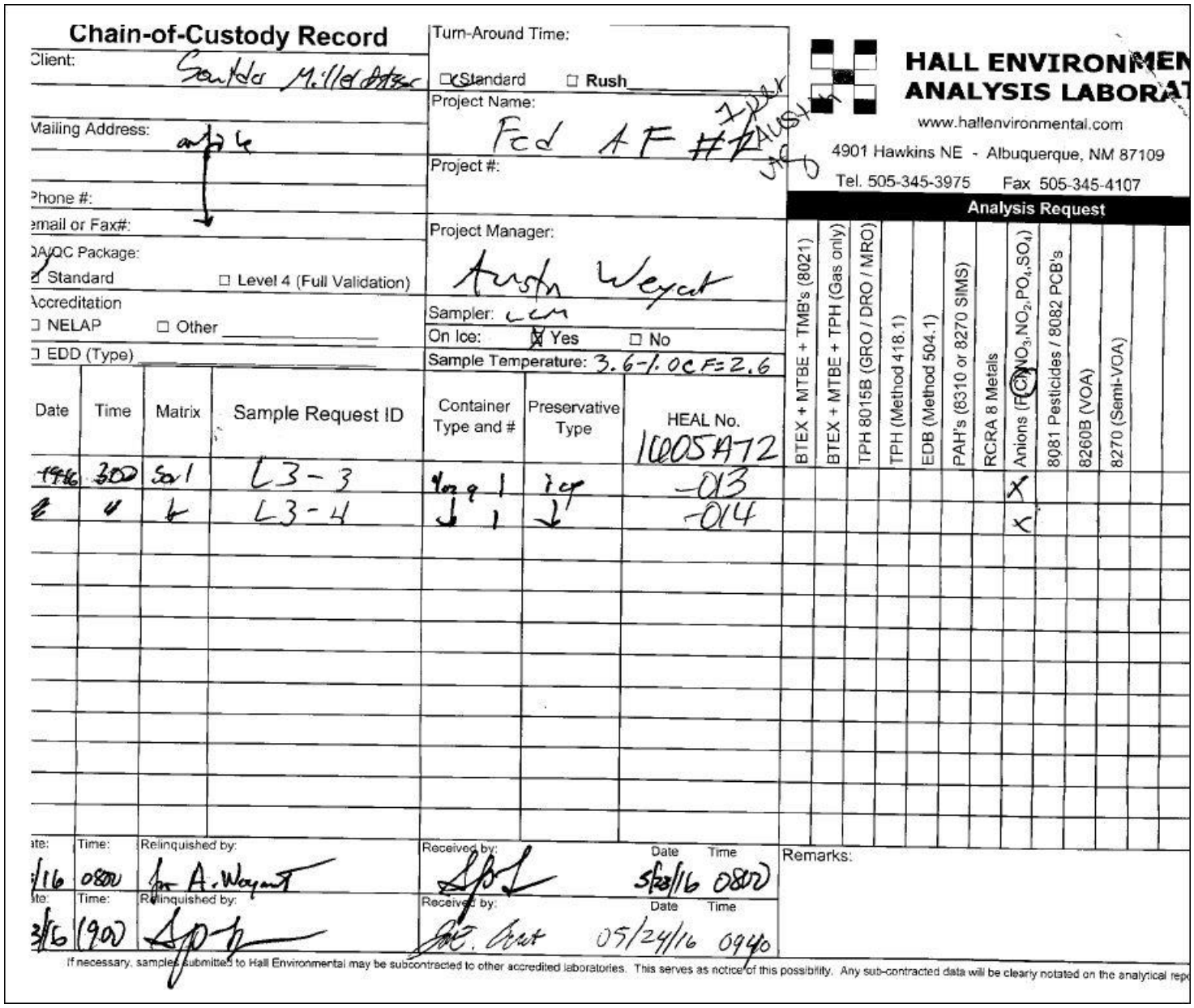
Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1605A72	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)
5/19/16	3020	Soil	L1-0.5	4oz 1	ice	-001	X		X					X			
			1			-002								X			
			2			-003								X			
			3			-004								X			
			L2-0.5			-005	X		X					X			
			L1-1			-006								X			
			L1-2			-007								X			
			L1-3			-008								X			
			L2-4			-009								X			
			L3 0.5			-010	X		X					X			
			1			-011								X			
			2			-012								X			

Date	Time	Relinquished by:	Received by:	Date	Time
5/19/16	0800	Austin Weyant		5/20/16	0800
5/19/16	1900			05/24/16	0940

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.



Chain-of-Custody Record

Client: Souder Miller Assoc

Mailing Address: [illegible]

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush 1 DAY RUSH

Project Name: Fed AF #1

Project #:

Project Manager: Austin Weyant

Sampler: LM

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.6-1.0 °C F=2.6

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	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)		
5/16	300	Soil	L3-3	4oz g 1	ice	1605A72-003								X					
"	"	"	L3-4	" 1	"	-004								X					

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/16	0800	for A. Weyant	[signature]	5/23/16	0800
5/16	1900	[signature]	[signature]	05/24/16	0940

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 rep