



# Turner A Battery

## REMEDIATION WORK PLAN

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API No (closest well). 30-015-29001

Release Date: November 7, 2016

Unit Letter O, Section 18, Township 17 South, Range 31 East

RP# 2R-4018

January 12, 2017

**Prepared by:**

Laura Flores  
Diversified Field Service, Inc.  
3412 N. Dal Paso  
Hobbs, NM 88240  
Phone: (575)964-8394  
Fax: (575)393-8396

Mike Bratcher  
Environmental Specialist  
NM Oil Conservation District – Division 2  
811 S First St  
Artesia, NM 88210

**RE: Linn Turner A Battery – Remediation Work Plan**  
UL/O, Section 18, T17S, R31E  
API No. 30-015-29001 (closest well)  
NMOCD Case #: 2R-4018  
NMOCD Score: 0

Mr. Bratcher,

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located northeast of Loco Hills, NM, in Eddy County. The spill resulted from a broken gasket on the fire tube of a production heater, releasing a total of 8 barrels of oil, with 3 barrels recovered. An initial C-141 was submitted to the NMOCD on November 28, 2016 (Appendix I).

### **Site Assessment and Delineation**

On November 7, 2016, DFSI personnel were on site to obtain samples within the leak area (Figure 1). Ten samples were obtained and field sampled for chloride levels, as well as BTEX (Appendix II). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Field samples were submitted for analysis at Hall Environmental Analysis Laboratory of Albuquerque, NM to obtain confirmation, resulting in concentrations below BLM and NMOCD regulatory guidelines (Appendix III).

DFSI has conducted a groundwater study of the area and has determined, according to the New Mexico Office of the State Engineer, there is no known groundwater beneath this site. Therefore, no eminent danger of groundwater impact or threat to life is anticipated (Appendix IV).

## Conclusion

After careful review DFSI on behalf of Linn Energy would like to propose the following:

Excavate the area around SP8 to a depth of 4' bgs. Scrape the areas around SP1, SP2, SP3, SP4, SP5 and SP6. The excavated and scraped areas will be backfilled with clean, imported soil, topsoil within the pasture around and caliche within the pad, to ground surface and contoured to the surrounding. The entire release area within the pasture will be seeded with a BLM - NMOCD approved blend of native vegetation (Figure 2).

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact Mike Burton at 575-390-5454 or me with any questions concerning this remediation plan request.

Sincerely,



Laura Flores

Environmental Report Writer | Diversified Field Services, Inc.

206 West Snyder | Hobbs, NM 88240

Office: (575)964-8394 | Fax: (575)964-8396 | Email: lflores@diversifiedfsi.com

Figure 1 – Soil Delineation

Figure 2 – Proposed Work

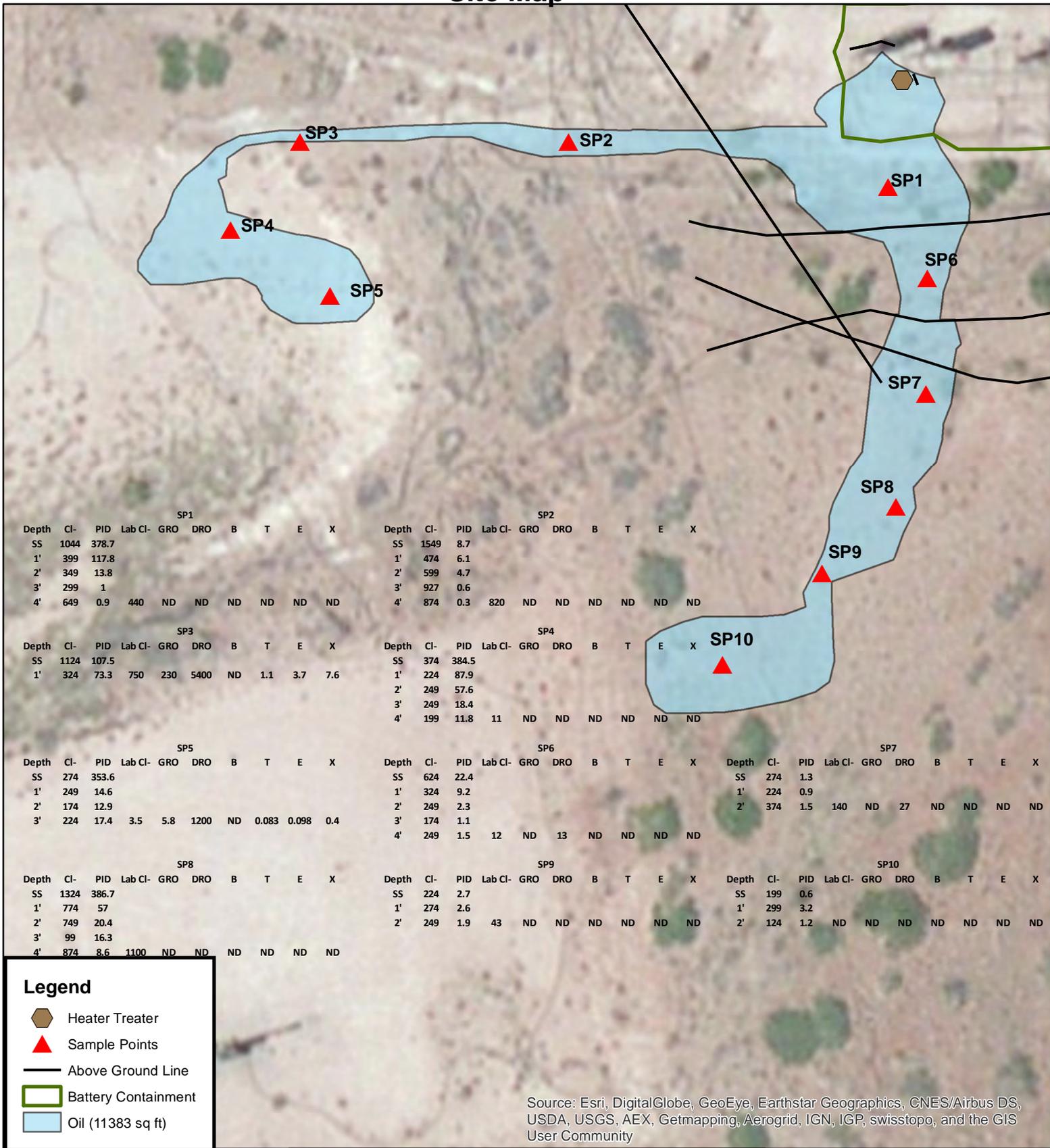
Appendix I – Initial C-141

Appendix II – Site Photos

Appendix III – Laboratory Analysis

Appendix IV – Groundwater Study

# Site Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

## Legend

- Heater Treater
- Sample Points
- Above Ground Line
- Battery Containment
- Oil (11383 sq ft)

**Linn**  
**Turner A Battery**  
**Unit Letter O, Sec. 18, T17S, R31E**  
**Eddy County, NM**  
**API #: 30-015-29001**

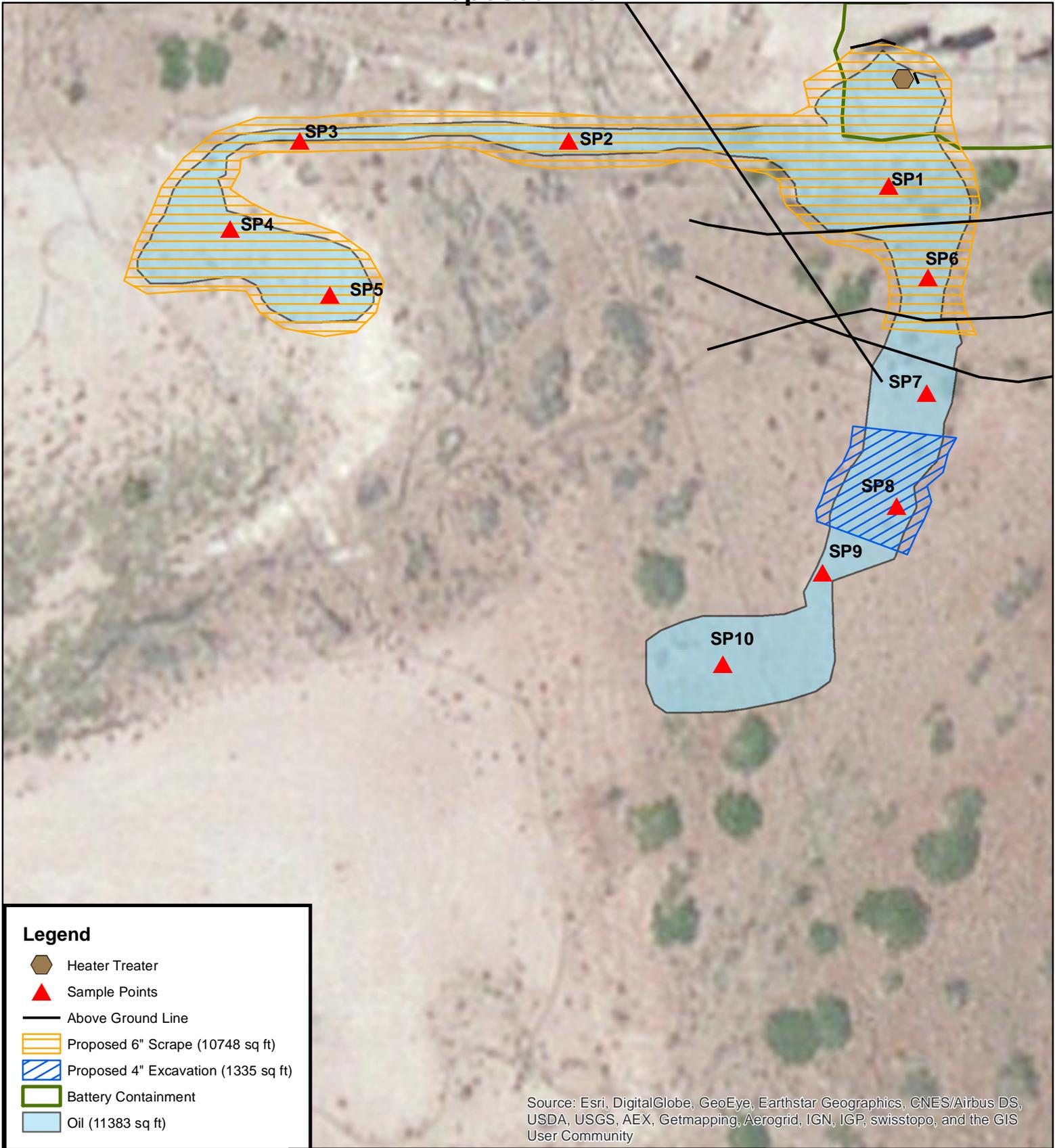
Figure 1



0 510 20 30 40  
 Feet



# Proposed Work



## Legend

-  Heater Treater
-  Sample Points
-  Above Ground Line
-  Proposed 6" Scrape (10748 sq ft)
-  Proposed 4" Excavation (1335 sq ft)
-  Battery Containment
-  Oil (11383 sq ft)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**Linn**  
**Turner A Battery**  
**Unit Letter O, Sec. 18, T17S, R31E**  
**Eddy County, NM**  
**API #: 30-015-29001**

## Figure 2



0 510 20 30 40  
 Feet

# Appendix I

INITIAL C-141

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394

**NM OIL CONSERVATION**

ARTESIA DISTRICT

Form C-141

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

NOV 28 2016

Revised August 8, 2011

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

**RECEIVED**

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

**FAB1634135238 Release Notification and Corrective Action**

**NAB1634135658**

**OPERATOR**

Initial Report  Final Report

Name of Company <b>LINN Operating, Inc.</b> <i>2169324</i>	Contact <b>Aaron Hickert</b>
Address <b>2130 W Bender Blvd Hobbs, NM 88240</b>	Telephone No. <b>432-363-9496</b>
Facility Name <b>Turner A Battery</b>	Facility Type <b>Battery</b>

Surface Owner <b>Federal</b>	Mineral Owner	API No.
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**LOCATION OF RELEASE**

Unit Letter <b>O</b>	Section <b>18</b>	Township <b>17S</b>	Range <b>31E</b>	Feet from the <b>560</b>	North/South Line <b>South</b>	Feet from the <b>1880</b>	East/West Line <b>East</b>	County <b>Eddy</b>
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Latitude 32.826955 Longitude -103.906938

**NATURE OF RELEASE**

Type of Release <b>Crude Oil</b>	Volume of Release <b>8 Bbl</b>	Volume Recovered <b>3 Bbl</b>
Source of Release <b>Gasket on Heater Treater</b>	Date and Hour of Occurrence <b>11/7/16</b>	Date and Hour of Discovery <b>11/7/2016 at 7:00 am</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

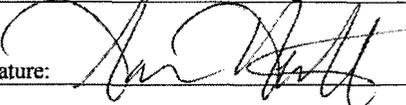
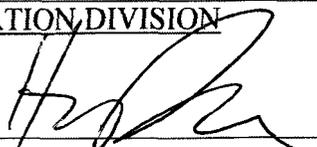
Describe Cause of Problem and Remedial Action Taken.\*

**Gasket on fire tube of production heater broke spraying oil both inside and outside the secondary containment. Called for a truck to vacuum up pooled oil, recovered 3 Bbls.**

Describe Area Affected and Cleanup Action Taken.\*

**Affected area inside containment - 10' x 30'. Area affected outside 2'x100', 5'x5', 2'x150', and 6'x6'.**

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Aaron Hickert</b>	Approved by Environmental Specialist: 	
Title: <b>Sr. EH&amp;S Representative</b>	Approval Date: <b>11/29/16</b>	Expiration Date: <b>NA</b>
E-mail Address: <b>ahickert@linnenergy.com</b>	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: <b>11/28/2016</b>	Phone: <b>432-363-9496</b>	

\* Attach Additional Sheets If Necessary

**2RP-4018**

# Appendix II

## SITE PHOTOS

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# Turner A Battery

Unit Letter O, Section 18, T17S, R30E

## PHOTO PAGE

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# Appendix III

## LABORATORY ANALYSIS

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



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)

November 30, 2016

Michael Burton  
Diversified Field Services, Inc  
315 S. Leech St  
Hobbs, NM 88240  
TEL: (575) 964-8394  
FAX

RE: Turner A Battery

OrderNo.: 1611960

Dear Michael Burton:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/17/2016 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](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 #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 1

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 8:32:00 AM

**Lab ID:** 1611960-001

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	440	30		mg/Kg	20	11/22/2016 12:19:19 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/22/2016 3:29:38 PM	28745
Surr: DNOP	91.5	70-130		%Rec	1	11/22/2016 3:29:38 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/18/2016 5:00:29 PM	28740
Surr: BFB	87.0	68.3-144		%Rec	1	11/18/2016 5:00:29 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	11/18/2016 5:00:29 PM	28740
Toluene	ND	0.049		mg/Kg	1	11/18/2016 5:00:29 PM	28740
Ethylbenzene	ND	0.049		mg/Kg	1	11/18/2016 5:00:29 PM	28740
Xylenes, Total	ND	0.099		mg/Kg	1	11/18/2016 5:00:29 PM	28740
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	11/18/2016 5:00:29 PM	28740

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
R	RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 2

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 9:40:00 AM

**Lab ID:** 1611960-002

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	820	30		mg/Kg	20	11/22/2016 1:58:34 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/22/2016 3:52:47 PM	28745
Surr: DNOP	85.3	70-130		%Rec	1	11/22/2016 3:52:47 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/21/2016 1:00:48 PM	28740
Surr: BFB	88.8	68.3-144		%Rec	1	11/21/2016 1:00:48 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	11/21/2016 1:00:48 PM	28740
Toluene	ND	0.050		mg/Kg	1	11/21/2016 1:00:48 PM	28740
Ethylbenzene	ND	0.050		mg/Kg	1	11/21/2016 1:00:48 PM	28740
Xylenes, Total	ND	0.099		mg/Kg	1	11/21/2016 1:00:48 PM	28740
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/21/2016 1:00:48 PM	28740

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
R	RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 3

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 10:04:00 AM

**Lab ID:** 1611960-003

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	750	30		mg/Kg	20	11/22/2016 2:23:22 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	5400	98		mg/Kg	10	11/22/2016 4:15:41 PM	28745
Surr: DNOP	0	70-130	S	%Rec	10	11/22/2016 4:15:41 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	230	48		mg/Kg	10	11/18/2016 6:34:43 PM	28740
Surr: BFB	180	68.3-144	S	%Rec	10	11/18/2016 6:34:43 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.24		mg/Kg	10	11/18/2016 6:34:43 PM	28740
Toluene	1.1	0.48		mg/Kg	10	11/18/2016 6:34:43 PM	28740
Ethylbenzene	3.7	0.48		mg/Kg	10	11/18/2016 6:34:43 PM	28740
Xylenes, Total	7.6	0.95		mg/Kg	10	11/18/2016 6:34:43 PM	28740
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	10	11/18/2016 6:34:43 PM	28740

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
R	RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 4

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 11:51:00 AM

**Lab ID:** 1611960-004

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	11	1.5		mg/Kg	1	11/22/2016 2:35:46 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/22/2016 5:01:43 PM	28745
Surr: DNOP	94.6	70-130		%Rec	1	11/22/2016 5:01:43 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/18/2016 6:58:18 PM	28740
Surr: BFB	85.6	68.3-144		%Rec	1	11/18/2016 6:58:18 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	11/18/2016 6:58:18 PM	28740
Toluene	ND	0.047		mg/Kg	1	11/18/2016 6:58:18 PM	28740
Ethylbenzene	ND	0.047		mg/Kg	1	11/18/2016 6:58:18 PM	28740
Xylenes, Total	ND	0.094		mg/Kg	1	11/18/2016 6:58:18 PM	28740
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	11/18/2016 6:58:18 PM	28740

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
R	RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 5

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 12:30:00 PM

**Lab ID:** 1611960-005

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3.5	1.5		mg/Kg	1	11/22/2016 4:12:19 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1200	95		mg/Kg	10	11/22/2016 5:24:46 PM	28745
Surr: DNOP	0	70-130	S	%Rec	10	11/22/2016 5:24:46 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5.8	4.8		mg/Kg	1	11/18/2016 7:21:48 PM	28740
Surr: BFB	96.7	68.3-144		%Rec	1	11/18/2016 7:21:48 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/18/2016 7:21:48 PM	28740
Toluene	0.083	0.048		mg/Kg	1	11/18/2016 7:21:48 PM	28740
Ethylbenzene	0.098	0.048		mg/Kg	1	11/18/2016 7:21:48 PM	28740
Xylenes, Total	0.40	0.096		mg/Kg	1	11/18/2016 7:21:48 PM	28740
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/18/2016 7:21:48 PM	28740

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
R	RPD outside accepted recovery limits	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:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 6

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 2:05:00 PM

**Lab ID:** 1611960-006

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	12	7.5		mg/Kg	5	11/22/2016 4:37:08 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	11/22/2016 6:10:38 PM	28745
Surr: DNOP	96.5	70-130		%Rec	1	11/22/2016 6:10:38 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/18/2016 7:45:13 PM	28740
Surr: BFB	84.4	68.3-144		%Rec	1	11/18/2016 7:45:13 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/18/2016 7:45:13 PM	28740
Toluene	ND	0.048		mg/Kg	1	11/18/2016 7:45:13 PM	28740
Ethylbenzene	ND	0.048		mg/Kg	1	11/18/2016 7:45:13 PM	28740
Xylenes, Total	ND	0.097		mg/Kg	1	11/18/2016 7:45:13 PM	28740
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	11/18/2016 7:45:13 PM	28740

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
	R RPD outside accepted recovery limits	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:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 7

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 3:15:00 PM

**Lab ID:** 1611960-007

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	140	7.5		mg/Kg	5	11/22/2016 5:01:57 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	27	9.6		mg/Kg	1	11/22/2016 6:33:28 PM	28745
Surr: DNOP	98.2	70-130		%Rec	1	11/22/2016 6:33:28 PM	28745
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/18/2016 8:08:44 PM	28740
Surr: BFB	85.5	68.3-144		%Rec	1	11/18/2016 8:08:44 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	11/18/2016 8:08:44 PM	28740
Toluene	ND	0.047		mg/Kg	1	11/18/2016 8:08:44 PM	28740
Ethylbenzene	ND	0.047		mg/Kg	1	11/18/2016 8:08:44 PM	28740
Xylenes, Total	ND	0.094		mg/Kg	1	11/18/2016 8:08:44 PM	28740
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/18/2016 8:08:44 PM	28740

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
	R RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 8

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 4:20:00 PM

**Lab ID:** 1611960-008

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	1100	30		mg/Kg	20	11/22/2016 5:39:10 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/22/2016 3:19:27 PM	28774
Surr: DNOP	72.9	70-130		%Rec	1	11/22/2016 3:19:27 PM	28774
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/18/2016 8:32:09 PM	28740
Surr: BFB	84.8	68.3-144		%Rec	1	11/18/2016 8:32:09 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/18/2016 8:32:09 PM	28740
Toluene	ND	0.048		mg/Kg	1	11/18/2016 8:32:09 PM	28740
Ethylbenzene	ND	0.048		mg/Kg	1	11/18/2016 8:32:09 PM	28740
Xylenes, Total	ND	0.096		mg/Kg	1	11/18/2016 8:32:09 PM	28740
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/18/2016 8:32:09 PM	28740

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
R	RPD outside accepted recovery limits	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.

Analytical Report

Lab Order 1611960

Date Reported: 11/30/2016

**CLIENT:** Diversified Field Services, Inc

**Client Sample ID:** Turner A Battery SP 9

**Project:** Turner A Battery

**Collection Date:** 11/10/2016 4:40:00 PM

**Lab ID:** 1611960-009

**Matrix:** SOIL

**Received Date:** 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	43	7.5		mg/Kg	5	11/22/2016 5:51:35 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/23/2016 1:38:00 PM	28774
Surr: DNOP	83.6	70-130		%Rec	1	11/23/2016 1:38:00 PM	28774
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/18/2016 8:55:42 PM	28740
Surr: BFB	83.0	68.3-144		%Rec	1	11/18/2016 8:55:42 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/18/2016 8:55:42 PM	28740
Toluene	ND	0.048		mg/Kg	1	11/18/2016 8:55:42 PM	28740
Ethylbenzene	ND	0.048		mg/Kg	1	11/18/2016 8:55:42 PM	28740
Xylenes, Total	ND	0.097		mg/Kg	1	11/18/2016 8:55:42 PM	28740
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	11/18/2016 8:55:42 PM	28740

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
R	RPD outside accepted recovery limits	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: Diversified Field Services, Inc

Client Sample ID: Turner A Battery SP 10

Project: Turner A Battery

Collection Date: 11/10/2016 5:20:00 PM

Lab ID: 1611960-010

Matrix: SOIL

Received Date: 11/17/2016 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	7.5		mg/Kg	5	11/22/2016 6:41:13 PM	28796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/23/2016 2:05:16 PM	28774
Surr: DNOP	87.7	70-130		%Rec	1	11/23/2016 2:05:16 PM	28774
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/18/2016 9:19:16 PM	28740
Surr: BFB	84.2	68.3-144		%Rec	1	11/18/2016 9:19:16 PM	28740
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	11/18/2016 9:19:16 PM	28740
Toluene	ND	0.048		mg/Kg	1	11/18/2016 9:19:16 PM	28740
Ethylbenzene	ND	0.048		mg/Kg	1	11/18/2016 9:19:16 PM	28740
Xylenes, Total	ND	0.096		mg/Kg	1	11/18/2016 9:19:16 PM	28740
Surr: 4-Bromofluorobenzene	99.7	80-120		%Rec	1	11/18/2016 9:19:16 PM	28740

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
R	RPD outside accepted recovery limits	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#: 1611960

30-Nov-16

**Client:** Diversified Field Services, Inc

**Project:** Turner A Battery

Sample ID	<b>MB-28796</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>28796</b>	RunNo:	<b>38922</b>					
Prep Date:	<b>11/21/2016</b>	Analysis Date:	<b>11/22/2016</b>	SeqNo:	<b>1216481</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-28796</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>28796</b>	RunNo:	<b>38922</b>					
Prep Date:	<b>11/21/2016</b>	Analysis Date:	<b>11/22/2016</b>	SeqNo:	<b>1216482</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	93.6	90	110			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611960

30-Nov-16

**Client:** Diversified Field Services, Inc

**Project:** Turner A Battery

Sample ID <b>LCS-28745</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>28745</b>		RunNo: <b>38853</b>							
Prep Date: <b>11/18/2016</b>	Analysis Date: <b>11/21/2016</b>		SeqNo: <b>1214276</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.2	62.6	124			
Surr: DNOP	4.4		5.000		88.0	70	130			

Sample ID <b>MB-28745</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>28745</b>		RunNo: <b>38853</b>							
Prep Date: <b>11/18/2016</b>	Analysis Date: <b>11/21/2016</b>		SeqNo: <b>1214280</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	8.6		10.00		86.5	70	130			

Sample ID <b>LCS-28774</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>28774</b>		RunNo: <b>38907</b>							
Prep Date: <b>11/21/2016</b>	Analysis Date: <b>11/22/2016</b>		SeqNo: <b>1216240</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	62.6	124			
Surr: DNOP	4.2		5.000		84.9	70	130			

Sample ID <b>MB-28774</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>28774</b>		RunNo: <b>38907</b>							
Prep Date: <b>11/21/2016</b>	Analysis Date: <b>11/22/2016</b>		SeqNo: <b>1216241</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	9.0		10.00		90.5	70	130			

Sample ID <b>1611960-008AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>Turner A Battery SP</b>	Batch ID: <b>28774</b>		RunNo: <b>38908</b>							
Prep Date: <b>11/21/2016</b>	Analysis Date: <b>11/22/2016</b>		SeqNo: <b>1216593</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.4	46.90	5.387	90.2	51.6	130			
Surr: DNOP	3.1		4.690		65.7	70	130			S

**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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611960

30-Nov-16

**Client:** Diversified Field Services, Inc

**Project:** Turner A Battery

Sample ID	1611960-008AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Turner A Battery SP	Batch ID:	28774	RunNo:	38908					
Prep Date:	11/21/2016	Analysis Date:	11/22/2016	SeqNo:	1216594	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.3	46.38	5.387	74.4	51.6	130	17.8	20	
Surr: DNOP	2.4		4.638		52.6	70	130	0	0	S

**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                                    |
| R RPD outside accepted recovery limits                  | 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#: 1611960

30-Nov-16

**Client:** Diversified Field Services, Inc

**Project:** Turner A Battery

Sample ID <b>MB-28740</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213564</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	800		1000		79.8	68.3	144			

Sample ID <b>LCS-28740</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213565</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.3	74.6	123			
Surr: BFB	860		1000		85.8	68.3	144			

Sample ID <b>1611960-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>Turner A Battery SP</b>	Batch ID: <b>28740</b>		RunNo: <b>38886</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/21/2016</b>		SeqNo: <b>1215253</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	24.98	0	89.2	61.3	150			
Surr: BFB	940		999.0		93.8	68.3	144			

Sample ID <b>1611960-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>Turner A Battery SP</b>	Batch ID: <b>28740</b>		RunNo: <b>38886</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/21/2016</b>		SeqNo: <b>1215254</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	4.8	24.25	0	88.7	61.3	150	3.49	20	
Surr: BFB	910		969.9		94.0	68.3	144	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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611960

30-Nov-16

**Client:** Diversified Field Services, Inc

**Project:** Turner A Battery

Sample ID <b>MB-28740</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213581</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		93.4	80	120			

Sample ID <b>LCS-28740</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213582</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	75.2	115			
Toluene	0.95	0.050	1.000	0	94.9	80.7	112			
Ethylbenzene	0.91	0.050	1.000	0	91.4	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	89.6	79.2	115			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.4	80	120			

Sample ID <b>1611960-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Turner A Battery SP</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213584</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9872	0	114	71.5	122			
Toluene	1.1	0.049	0.9872	0.01429	106	71.2	123			
Ethylbenzene	1.0	0.049	0.9872	0.01932	102	75.2	130			
Xylenes, Total	3.1	0.099	2.962	0.07740	101	72.4	131			
Surr: 4-Bromofluorobenzene	1.0		0.9872		105	-83.4	338			

Sample ID <b>1611960-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Turner A Battery SP</b>	Batch ID: <b>28740</b>		RunNo: <b>38819</b>							
Prep Date: <b>11/17/2016</b>	Analysis Date: <b>11/18/2016</b>		SeqNo: <b>1213586</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9606	0	95.0	71.5	122	20.5	20	R
Toluene	0.98	0.048	0.9606	0.01429	100	71.2	123	8.06	20	
Ethylbenzene	1.0	0.048	0.9606	0.01932	103	75.2	130	1.82	20	
Xylenes, Total	3.1	0.096	2.882	0.07740	103	72.4	131	0.790	20	
Surr: 4-Bromofluorobenzene	1.0		0.9606		108	-83.4	338	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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-1107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **DIVERSIFIED FIELD SE**

Work Order Number: **1611960**

ReptNo: **1**

Received by/date: *as* *11/17/16*

Logged By: **Andy Jansson** *11/17/2016 9:30:00 AM* *[Signature]*

Completed By: *Andy Jansson* *11/17/16*

Reviewed By: *[Signature]* *11/17/16*

**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
  - 13. Are matrices correctly identified on Chain of Custody? Yes  No
  - 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
- # of preserved bottles checked for pH  
(<2 or >12 unless noted)  
Adjusted?  
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	1.8	Good	Yes			

# Chain-of-Custody Record

Client: DFSI

Billing Address: 206 W. Snyder

Phone #: on file

Mail or Fax#:

QC Package: Standard  Level 4 (Full Validation)

Creditation: NELAP  Other

EDD (Type)

Turn-Around Time:  Standard  Rush

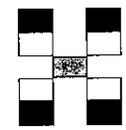
Project Name: Turner A Battery

Project Manager: Mike Burton

Sampler: Picky Alvarez

On Ice:  Yes  No

Sample Temperature: 1.9°C



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample 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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
11/16	0832	Soil	Turner A Batt SP1	4oz. jar 1	ice	1611960-001	X	X						X				
	0940		SP2			-002												
	1004		SP3			-003												
	1151		SP4			-004												
	1230		SP5			-005												
	1405		SP6			-006												
	1515		SP7			-007												
	1620		SP8			-008												
	1640		SP9			-009												
	1720		SP10			-010												

Relinquished by: Laura Howard  
 Date/Time: 11/16/16 07:30

Relinquished by: Spk  
 Date/Time: 6/16 1900

Received by: Spk  
 Date/Time: 11/16/16 0730

Received by: am pwn  
 Date/Time: 11/17/16 0930

Remarks: Hlores@diversifiedtsi.com  
M Burton  
Malves  
mpatterson  
ralvarez

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.

# Appendix IV

## GROUNDWATER STUDY

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Diversified Field Service, Inc.  
206 W. Snyder  
Hobbs, NM 88240  
(575) 964-8394



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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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No records found.

**PLSS Search:**

**Section(s):** 13, 24, 25

**Township:** 17S

**Range:** 30E



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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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No records found.

**PLSS Search:**

**Section(s):** 17, 18, 19, 20, 29, 30    **Township:** 17S    **Range:** 31E