



Turner B #99

REVISED REMEDIATION WORK PLAN

API No. 30-015-26621

Release Date: 02/07/2012

Unit Letter L, Section 29, Township 17 South, Range 31 East

RP# 2RP-1054

BLM Event# NU12070TG

June 8, 2016

Prepared by:

Michael Burton, Environmental Operations Director

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 Energy Turner B #99 – Revised Remediation Work Plan**
UL/L, Section 29, T17S, R31E
API No. 30-015-26621
NMOCD Case #: 2R-1054

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 south west of Maljamar, NM, in Eddy County. The spill resulted from an over pressured line, releasing a total of 5 barrels of produced water and 0.5 barrels of oil, with 2 barrels of produced water and 10 gallons of oil recovered. The impacted area is on the side of the lease road adjacent to the pad. An initial C-141 was submitted to the NMOCD on October 14, 2011, and approved on February 28, 2012 (Appendix I).

Site Assessment and Delineation

On May 4, 2016, DFSI personnel were on site to obtain samples within the leak area (Appendix II). Eight samples were obtained and field sampled for chloride levels, as well as BTEX (Figure 1). The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Field samples were submitted for analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation, resulting in low concentrations below NMOCD and BLM 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 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 SP1 to a depth of 4' bgs and backfill with clean, imported soil to ground surface (Figure 2). The area will be contoured to the surrounding area and the entire release area will then be seeded with an approved BLM-NMOCD mix.

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 me with any questions concerning this remediation plan request.

Sincerely,

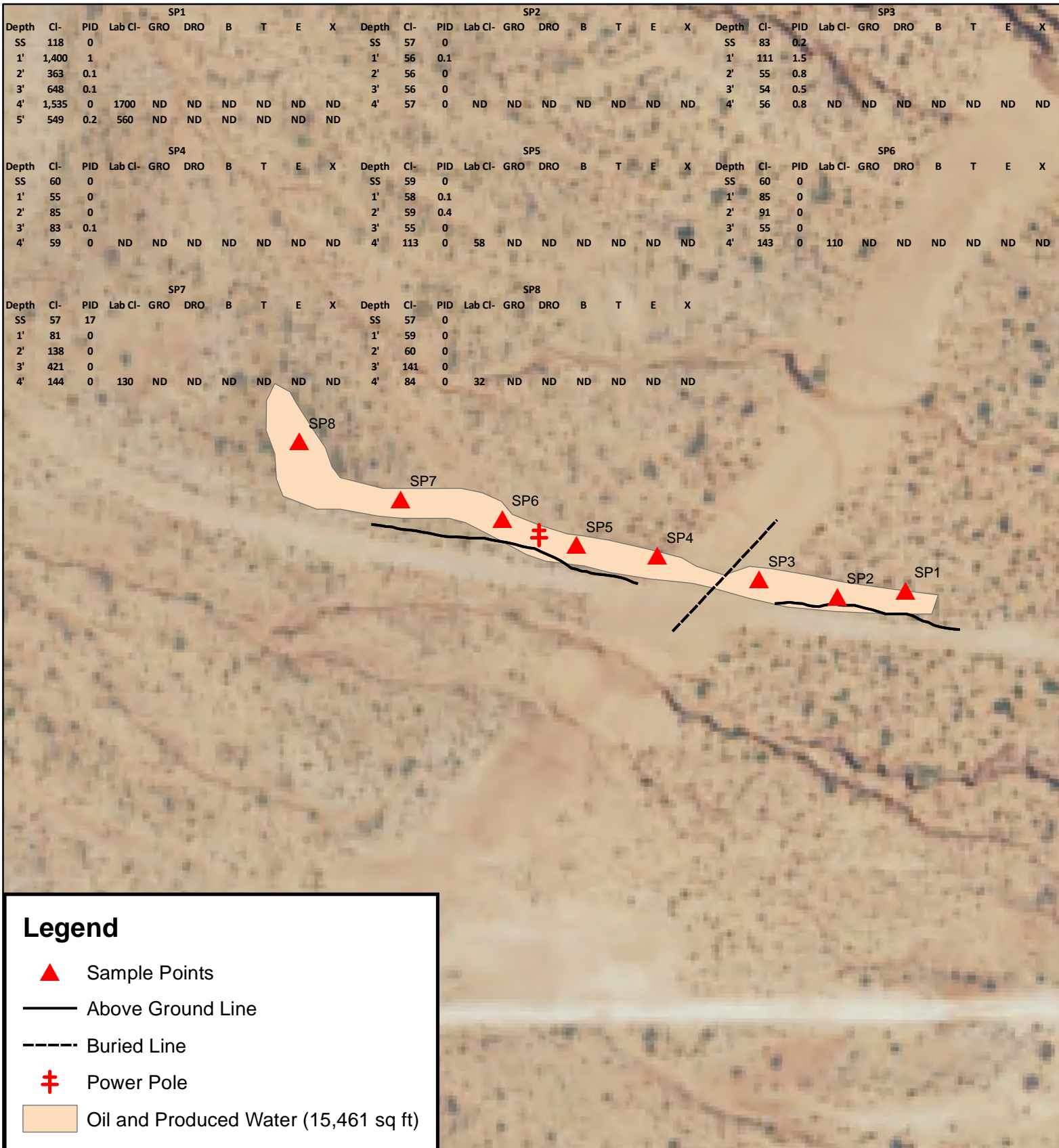


Michael Burton
Environmental Operations Director | Diversified Field Service, Inc.
206 West Snyder | Hobbs, NM 88240
Office: (575)964-8394 | Mobile: (575)390-5454
Fax: (575)964-8396 | Email: Mburton@diversifiedfsi.com

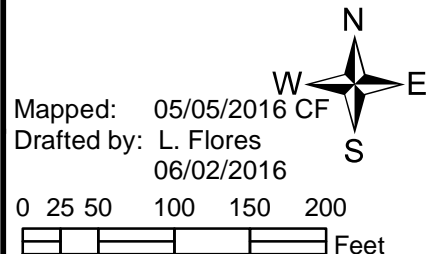
cc Shelly Tucker

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

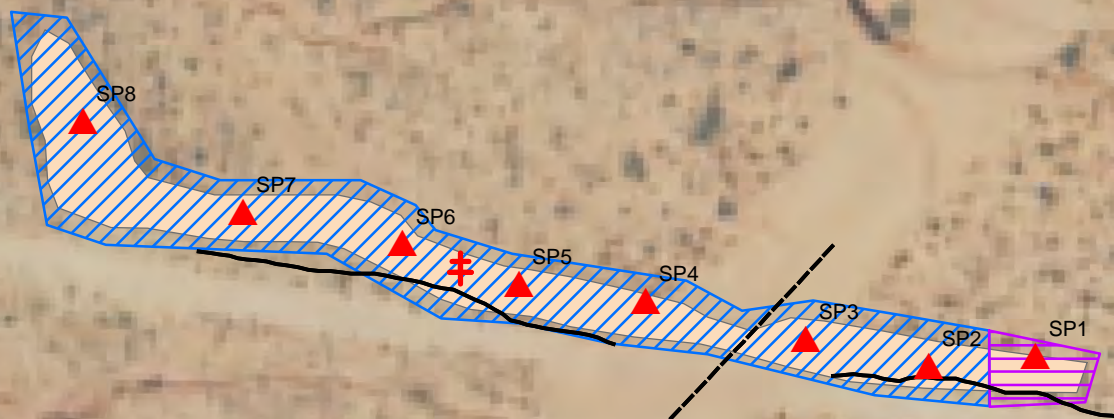
Soil Delineation










Linn
Turner B #99
Unit Letter L, Section 29, T17S, R31E
Eddy County, NM
API #: 30-015-26621
NMOCD Case #: 2R-1054



Proposed Work

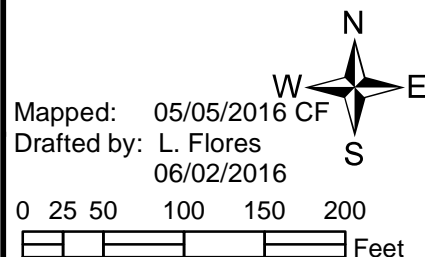


Legend

-  Sample Points
-  Above Ground Line
-  Buried Line
-  Power Pole
-  Proposed Excavation to 4' bgs
-  Proposed Surface Restoration
-  Oil and Produced Water (15,461 sq ft)



**Linn
Turner B #99
Unit Letter L, Section 29, T17S, R31E
Eddy County, NM
API #: 30-015-26621
NMOCD Case #: 2R-1054**



Appendix I

INITIAL C-141

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED

FEB 28 2012

NMOCD ARTESIA

Form C-141
Revised October 10, 2003
Appropriate District Office in
accordance with 19.15.29 NMAC

REVISED

Release Notification and Corrective Action

NMLB1206131638

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating 269324	Contact: Joë Hernandez
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B #99	Facility Type: Oil Well
Surface Owner: Federal	Mineral Owner: Federal
API No.: 3001526621	

LOCATION OF RELEASE

Unit Letter L	Section 29	Township 17S	Range 31E	Feet from the 2590	North/South Line South	Feet from the 100	East/West Line West	County Eddy
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Latitude: 32.8054229524098 Longitude: -103.900125487933

NATURE OF RELEASE

Type of Release: Produced Water/ Oil Condensate	Volume of Release: 5 / .5	Volume Recovered: 2 / 10gal.
Source of Release: Polly Pipeline	Date and Hour of Occurrence: 02/07/2012 1:00pm	Date and Hour of Discovery: 02/07/2012 1:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher-NM OCD Terry Gregston-BLM	
By Whom? Joe Hernandez	Date and Hour 02/07/2012 3:00pm	
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.*: 2" Flow line pressured up and clamp gave out

Describe Area Affected and Cleanup Action Taken.* : leaking out 151ft x 2ft wide on side of lease road and next to unit TB #99. A.C.D. Vac Truck. Further remedial action pending.

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: 

Printed Name: Joe Hernandez

Title: Production Foreman

E-mail Address: jhernandez@innenergy.com

Date: 2/28/2012

Phone: 575-942-9492

OIL CONSERVATION DIVISION

Approved by District Supervisor: 

Approval Date:

MAR 01 2012

Expiration Date:

Conditions of Approval:

Attached ☐

Remediation per OCD Rules &
Guidelines. SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN:

4/1/2012

2RP-1054

* Attach Additional Sheets If Necessary

Appendix II

SITE PHOTOS

Turner B #099

Unit Letter L, Section 29, T17S, R31E | NMOCD Case #: 2R-1054

PHOTO PAGE



Site prior, facing west

6/19/2014



Site prior, facing east

6/19/2014



Collecting sample by hand auger, facing east

5/4/2016



Collecting sample by hand auger, facing northwest

5/5/2016

Appendix III

LABORATORY ANALYSIS

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

May 20, 2016

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

RE: Turner B #099

OrderNo.: 1605444

Dear Dennis Potter:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/11/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 17, 2016.

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. 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. All samples are reported as received unless otherwise indicated.

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

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 1605444

Date Reported: 5/20/2016

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 1 @4'

Project: Turner B #099

Collection Date: 5/5/2016 8:00:00 AM

Lab ID: 1605444-001

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1700	75		mg/Kg	50	5/17/2016 2:39:49 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/12/2016 2:05:32 PM	25274
Surr: DNOP	72.3	70-130		%Rec	1	5/12/2016 2:05:32 PM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/12/2016 1:16:16 PM	25265
Surr: BFB	104	80-120		%Rec	1	5/12/2016 1:16:16 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/12/2016 1:16:16 PM	25265
Toluene	ND	0.048		mg/Kg	1	5/12/2016 1:16:16 PM	25265
Ethylbenzene	ND	0.048		mg/Kg	1	5/12/2016 1:16:16 PM	25265
Xylenes, Total	ND	0.097		mg/Kg	1	5/12/2016 1:16:16 PM	25265
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	5/12/2016 1:16:16 PM	25265

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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 2@4'

Project: Turner B #099

Collection Date: 5/5/2016 8:50:00 AM

Lab ID: 1605444-002

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/16/2016 1:20:42 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/14/2016 6:53:57 AM	25274
Surr: DNOP	94.2	70-130		%Rec	1	5/14/2016 6:53:57 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2016 2:26:20 PM	25265
Surr: BFB	104	80-120		%Rec	1	5/12/2016 2:26:20 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/12/2016 2:26:20 PM	25265
Toluene	ND	0.050		mg/Kg	1	5/12/2016 2:26:20 PM	25265
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2016 2:26:20 PM	25265
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2016 2:26:20 PM	25265
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	5/12/2016 2:26:20 PM	25265

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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 3@4'

Project: Turner B #099

Collection Date: 5/5/2016 9:40:00 AM

Lab ID: 1605444-003

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/16/2016 1:33:07 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/14/2016 7:15:24 AM	25274
Surr: DNOP	92.9	70-130		%Rec	1	5/14/2016 7:15:24 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2016 2:49:42 PM	25265
Surr: BFB	102	80-120		%Rec	1	5/12/2016 2:49:42 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/12/2016 2:49:42 PM	25265
Toluene	ND	0.049		mg/Kg	1	5/12/2016 2:49:42 PM	25265
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2016 2:49:42 PM	25265
Xylenes, Total	ND	0.097		mg/Kg	1	5/12/2016 2:49:42 PM	25265
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/12/2016 2:49:42 PM	25265

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 1605444

Date Reported: 5/20/2016

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 4@4'

Project: Turner B #099

Collection Date: 5/5/2016 10:20:00 AM

Lab ID: 1605444-004

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/16/2016 1:45:32 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/12/2016 3:11:02 PM	25274
Surr: DNOP	70.4	70-130		%Rec	1	5/12/2016 3:11:02 PM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2016 3:13:07 PM	25265
Surr: BFB	103	80-120		%Rec	1	5/12/2016 3:13:07 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/12/2016 3:13:07 PM	25265
Toluene	ND	0.049		mg/Kg	1	5/12/2016 3:13:07 PM	25265
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2016 3:13:07 PM	25265
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2016 3:13:07 PM	25265
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/12/2016 3:13:07 PM	25265

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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 5@4'

Project: Turner B #099

Collection Date: 5/5/2016 11:00:00 AM

Lab ID: 1605444-005

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	58	30		mg/Kg	20	5/16/2016 1:57:57 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/14/2016 7:36:58 AM	25274
Surr: DNOP	89.3	70-130		%Rec	1	5/14/2016 7:36:58 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/12/2016 3:36:33 PM	25265
Surr: BFB	101	80-120		%Rec	1	5/12/2016 3:36:33 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/12/2016 3:36:33 PM	25265
Toluene	ND	0.048		mg/Kg	1	5/12/2016 3:36:33 PM	25265
Ethylbenzene	ND	0.048		mg/Kg	1	5/12/2016 3:36:33 PM	25265
Xylenes, Total	ND	0.095		mg/Kg	1	5/12/2016 3:36:33 PM	25265
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/12/2016 3:36:33 PM	25265

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
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	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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 6@4'

Project: Turner B #099

Collection Date: 5/5/2016 11:50:00 AM

Lab ID: 1605444-006

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	110	30		mg/Kg	20	5/16/2016 2:10:21 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/14/2016 7:58:23 AM	25274
Surr: DNOP	92.8	70-130		%Rec	1	5/14/2016 7:58:23 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/13/2016 8:52:12 PM	25265
Surr: BFB	103	80-120		%Rec	1	5/13/2016 8:52:12 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/13/2016 8:52:12 PM	25265
Toluene	ND	0.048		mg/Kg	1	5/13/2016 8:52:12 PM	25265
Ethylbenzene	ND	0.048		mg/Kg	1	5/13/2016 8:52:12 PM	25265
Xylenes, Total	ND	0.096		mg/Kg	1	5/13/2016 8:52:12 PM	25265
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/13/2016 8:52:12 PM	25265

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
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	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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 7@4'

Project: Turner B #099

Collection Date: 5/5/2016 1:30:00 PM

Lab ID: 1605444-007

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	30		mg/Kg	20	5/16/2016 2:22:45 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/14/2016 8:19:49 AM	25274
Surr: DNOP	77.2	70-130		%Rec	1	5/14/2016 8:19:49 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/13/2016 9:15:35 PM	25265
Surr: BFB	103	80-120		%Rec	1	5/13/2016 9:15:35 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/13/2016 9:15:35 PM	25265
Toluene	ND	0.048		mg/Kg	1	5/13/2016 9:15:35 PM	25265
Ethylbenzene	ND	0.048		mg/Kg	1	5/13/2016 9:15:35 PM	25265
Xylenes, Total	ND	0.095		mg/Kg	1	5/13/2016 9:15:35 PM	25265
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/13/2016 9:15:35 PM	25265

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
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1605444

Date Reported: 5/20/2016

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 8@4'

Project: Turner B #099

Collection Date: 5/5/2016 2:50:00 PM

Lab ID: 1605444-008

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	32	30		mg/Kg	20	5/16/2016 2:35:09 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/14/2016 8:41:09 AM	25274
Surr: DNOP	73.5	70-130		%Rec	1	5/14/2016 8:41:09 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/13/2016 9:39:06 PM	25265
Surr: BFB	102	80-120		%Rec	1	5/13/2016 9:39:06 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/13/2016 9:39:06 PM	25265
Toluene	ND	0.048		mg/Kg	1	5/13/2016 9:39:06 PM	25265
Ethylbenzene	ND	0.048		mg/Kg	1	5/13/2016 9:39:06 PM	25265
Xylenes, Total	ND	0.097		mg/Kg	1	5/13/2016 9:39:06 PM	25265
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/13/2016 9:39:06 PM	25265

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 **1605444**

Date Reported: **5/20/2016**

CLIENT: Diversified Field Services, Inc

Client Sample ID: Sample Point 1 @5'

Project: Turner B #099

Collection Date: 5/6/2016 9:00:00 AM

Lab ID: 1605444-009

Matrix: SOIL

Received Date: 5/11/2016 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	560	30		mg/Kg	20	5/16/2016 2:47:34 PM	25353
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	760	96		mg/Kg	10	5/14/2016 9:02:35 AM	25274
Surr: DNOP	0	70-130	S	%Rec	10	5/14/2016 9:02:35 AM	25274
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/13/2016 10:02:32 PM	25265
Surr: BFB	128	80-120	S	%Rec	1	5/13/2016 10:02:32 PM	25265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/13/2016 10:02:32 PM	25265
Toluene	ND	0.046		mg/Kg	1	5/13/2016 10:02:32 PM	25265
Ethylbenzene	ND	0.046		mg/Kg	1	5/13/2016 10:02:32 PM	25265
Xylenes, Total	ND	0.092		mg/Kg	1	5/13/2016 10:02:32 PM	25265
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/13/2016 10:02:32 PM	25265

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#: 1605444

20-May-16

Client: Diversified Field Services, Inc

Project: Turner B #099

Sample ID	MB-25353		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	25353		RunNo:	34271				
Prep Date:	5/16/2016		Analysis Date:	5/16/2016		SeqNo:	1056736		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-25353		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 25353		RunNo: 34271					
Prep Date:	5/16/2016		Analysis Date: 5/16/2016		SeqNo: 1056737		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
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#: 1605444

20-May-16

Client: Diversified Field Services, Inc

Project: Turner B #099

Sample ID	LCS-25274		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25274		RunNo: 34171					
Prep Date:	5/12/2016		Analysis Date: 5/12/2016		SeqNo: 1053714		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.1	65.8	136			
Surr: DNOP	3.8		5.000		75.3	70	130			

Sample ID	MB-25274		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 25274		RunNo: 34171					
Prep Date:	5/12/2016		Analysis Date: 5/12/2016		SeqNo: 1053715		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.9		10.00		79.4	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
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#: 1605444

20-May-16

Client: Diversified Field Services, Inc

Project: Turner B #099

Sample ID	MB-25265		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 25265		RunNo: 34190					
Prep Date:	5/11/2016		Analysis Date: 5/12/2016		SeqNo: 1054189		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	1000		1000		102	80	120			

Sample ID	LCS-25265		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 25265		RunNo: 34190					
Prep Date:	5/11/2016		Analysis Date: 5/12/2016		SeqNo: 1054190		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	92.6	80	120			
Surr: BFB	1100		1000		111	80	120			

Sample ID	1605444-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Sample Point 1@4'		Batch ID: 25265		RunNo: 34190					
Prep Date:	5/11/2016		Analysis Date: 5/12/2016		SeqNo: 1054196		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.56	0	107	59.3	143			
Surr: BFB	1100		942.5		116	80	120			

Sample ID	1605444-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	Sample Point 1@4'		Batch ID:	25265		RunNo:	34190				
Prep Date:	5/11/2016		Analysis Date:	5/12/2016		SeqNo:	1054197		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	4.7	23.39	0	105	59.3	143	2.75	20		
Surr: BFB	1100		935.5		116	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
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#: 1605444

20-May-16

Client: Diversified Field Services, Inc

Project: Turner B #099

Sample ID	MB-25265		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 25265		RunNo: 34190					
Prep Date:	5/11/2016		Analysis Date: 5/12/2016		SeqNo: 1054205		Units: mg/Kg			
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	1.0		1.000		104	80	120			

Sample ID	LCS-25265			SampType:	LCS			TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS			Batch ID:	25265			RunNo:	34190					
Prep Date:	5/11/2016			Analysis Date:	5/12/2016			SeqNo:	1054206			Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	1.1	0.025	1.000	0	105	75.3	123							
Toluene	1.0	0.050	1.000	0	104	80	124							
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121							
Xylenes, Total	3.0	0.10	3.000	0	101	83.9	122							
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120							

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: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **DIVERSIFIED FIELD SE**

Work Order Number: **1605444**

RptNo: 1

Received by/date:

Ja

05/11/16

Logged By: **Joe Archuleta**

5/11/2016 9:50:00 AM

Ja

Completed By: **Joe Archuleta**

5/11/2016 10:49:18 AM

Ja

Reviewed By:

IO

05/11/16

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 $>0^{\circ}\text{C}$ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: DESI Environmental

Mailing Address: 206 W. Snyder St
Hobbs, NM 88240

Phone #: _____

Email or Fax#: lflores@diversifiedfsi.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Turner B #099

Project #:

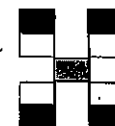
Project Manager:

Dennis Datter

Sampler: Chris Flores

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



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)	Air Bubbles (Y or N)
5/20/16	8:00 AM	Soil	Sample Point 1 @ 4'	4 oz glass	Ice	-001	X		X					X				
	8:50 AM		Sample Point 2 @ 4'			-002												
	9:40 AM		Sample Point 3 @ 4'			-003												
	10:20 AM		Sample Point 4 @ 4'			-004												
	11:00 AM		Sample Point 5 @ 4'			-005												
	11:50 AM		Sample Point 6 @ 4'			-006												
	1:30 PM		Sample Point 7 @ 4'			-007												
	2:50 PM		Sample Point 8 @ 4'			-008												
5/20/16	9:00 AM		Sample Point 1 @ 5'			-009												

Relinquished by:	Received by:	Date	Time	Remarks:
5/20/16 1035 <u>Chris Flores</u>	<u>Sp L</u>	5/10/16	1035	Email to: lflores@diversifiedfsi.com
5/16 1900 <u>Sp L</u>	<u>Joe Cota</u>	05/11/16	0950	malves @ ingurson @ neatherson @ cflores @

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

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



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11590 POD1			ED	2	1	3	32	17S	31E	603315	3628545	158		
RA 11590 POD3			ED	3	1	2	32	17S	31E	603932	3629260	60		
RA 11590 POD4			ED	4	1	1	32	17S	31E	603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Section(s): 19, 20, 21, 28,
29, 30, 31, 32,
33

Township: 17S

Range: 31E