

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

State of New Mexico
Energy Minerals and Natural Resources

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

NMOC

Form C-141
Revised April 3, 2017

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

DISTRICT III

Release Notification and Corrective Action

OPERATOR

☒ Initial Report

☒ Final Report

Name of Company: Enduring Resources, LLC	Contact: James McDaniel
Address: 332 Road 3100, Aztec, New Mexico 87410	Telephone No.: 505-636-9731
Facility Name: N Escavada Unit 313H	Facility Type: Well Site (Oil)

Surface Owner: BLM (Navajo Allottee)	Mineral Owner: BLM	API No. 30-049-21284
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LOCATION OF RELEASE

Unit Letter I	Section 10	Township 22N	Range 7W	Feet from the 1937	North/South Line SOUTH	Feet from the 1259	East/West Line EAST	County Sandoval
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Latitude **36.151932** Longitude **-107.557731** NAD83

NATURE OF RELEASE

Type of Release: Produced Oil	Volume of Release: 11 BBLS	Volume Recovered: 7 BBLS
Source of Release: Broken valve on Separator	Date and Hour of Occurrence: April 29, 2018 - 8 AM	Date and Hour of Discovery: April 29, 2018 - 8 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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.*
NOT IMPACTED


Describe Cause of Problem and Remedial Action Taken.*

On April 29, 2018, a leak was discovered in a kimray valve on a separator at the N Escavada Unit 313H well location. The valve was spraying oil in a mist into the bermed area, misting some oil outside of the lined berm. The well as shut in, and the valve replaced. The site was ranked a 10 pursuant to the NMOCD Guidelines for the Remediation for Leaks, Spills and Releases, due to a wash less than 1,000 feet from the spill location to the Southeast. This set the closure standards to 1,000 ppm TPH, 10 ppm benzene, and 50 ppm total BTEX. A crew was dispatched to wash the equipment and collect oil pooled on the liner. Approximately 7.5 bbls was recovered from inside the lined berm area.

Describe Area Affected and Cleanup Action Taken.*

Approximately 3.5 bbls of oil misted onto the wellpad outside the bermed area. The impacted area measured approximately 75' x 15' wide. On May 2, 2018, the area was scraped approximately three (3) inches, and two (2) composite samples were collected from the scraped area. The soil samples were analyzed for DRO/GRO via USEPA Method 8015, and for BTEX using USEPA Method 8021. Both samples returned results below the regulatory limits of 1,000 ppm TPH, 10 ppm benzene, and 50 ppm total BTEX. Approximately 10 cubic yards of impacted soil was disposed of at Envirotech's Landfarm. No further action is required regarding this incident.

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: 	OIL CONSERVATION DIVISION	
Printed Name: James McDaniel	Approved by Environmental Specialist: 	
Title: HSE Supervisor	Approval Date: 5/23/18	Expiration Date:
E-mail Address: jmcdaniel@enduringresources.com	Conditions of Approval: -	Attached <input type="checkbox"/>
Date: 5/9/2018	Phone: 505-636-9731	

* Attach Additional Sheets If Necessary

#wcs 1814342584

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ENDURING RESOURCES

ON-SITE FORM

Well Name N. Escalante 313 H API # 30-045-21204

Section 10 Township 22N Range 7W County Sandoval State NM

Contractors On-Site None Time On-Site 1430 Time Off-Site 1500

Spill Amount 10-11 bbls Spilled (Oil/Produced Water/Other —) Recovered 7

Land Use (Range / Residential / Tribe) Navajo Spill Area 15 x 75' x 0.3" deep

Site Diagram

Sample Location

Comments
* 1000 ppm closure due to wash less than 1,000 feet away

Samples

Time	Sample #	Sample Description	Characteristics	OVM (ppm)	Analysis Requested
	NA	100 Standard	NA		NA
240	1	Spill Area After Sample #1-0-3"	Sample 1, Dry, Brown, No odor		EOIS, EO21
245	2	Spill Area After Sample #2-0-3"	Sample 2, Dry, Brown, No odor		EOIS, EO21

Name (Print) James McDaniel

Date 5/2/12

Name (Signature) [Signature]

Company Enduring

Enduring Resources

Sample Delivery Group: L991141
Samples Received: 05/04/2018
Project Number:
Description: Spill Sampling
Site: N ESCAVADA UNIT #3134
Report To: James McDaniel
332 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By:



Daphne Richards
Technical Service Representative

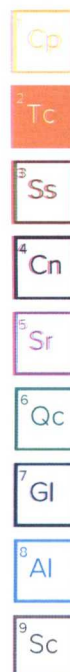
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SPILL AREA AFTER SCRAPE #1 L991141-01 Solid

Collected by
James McDaniel

Collected date/time
05/02/18 14:40

Received date/time
05/04/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1107808	1	05/07/18 09:55	05/07/18 10:05	KS
Volatile Organic Compounds (GC) by Method 8015/8021	WG1107694	1	05/04/18 16:26	05/07/18 01:30	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1107199	1	05/04/18 21:36	05/05/18 18:54	TNG

¹Cp

²Tc

SPILL AREA AFTER SCRAPE #2 L991141-02 Solid

Collected by
James McDaniel

Collected date/time
05/02/18 14:45

Received date/time
05/04/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1107808	1	05/07/18 09:55	05/07/18 10:05	KS
Volatile Organic Compounds (GC) by Method 8015/8021	WG1107694	1	05/04/18 16:26	05/07/18 01:51	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1107199	1	05/04/18 21:36	05/05/18 19:05	TNG

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Technical Service Representative



SPILL AREA AFTER SCRAPE #1

Collected date/time: 05/02/18 14:40

SAMPLE RESULTS - 01

L991141

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	05/07/2018 10:05	WG1107808

Cp

Tc

Ss

Cn

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000531	1	05/07/2018 01:30	WG1107694
Toluene	ND		0.00531	1	05/07/2018 01:30	WG1107694
Ethylbenzene	ND		0.000531	1	05/07/2018 01:30	WG1107694
Total Xylene	ND		0.00159	1	05/07/2018 01:30	WG1107694
TPH (GC/FID) Low Fraction	ND		0.106	1	05/07/2018 01:30	WG1107694
(S) a,a,a-Trifluorotoluene(FID)	99.1		77.0-120		05/07/2018 01:30	WG1107694
(S) a,a,a-Trifluorotoluene(PID)	105		75.0-128		05/07/2018 01:30	WG1107694

Qc

GI

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	104		4.25	1	05/05/2018 18:54	WG1107199
(S) o-Terphenyl	69.4		18.0-148		05/05/2018 18:54	WG1107199

AI

Sc



Collected date/time: 05/02/18 14:45

L991141

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.6		1	05/07/2018 10:05	WG1107808

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000540	1	05/07/2018 01:51	WG1107694
Toluene	ND		0.00540	1	05/07/2018 01:51	WG1107694
Ethylbenzene	ND		0.000540	1	05/07/2018 01:51	WG1107694
Total Xylene	ND		0.00162	1	05/07/2018 01:51	WG1107694
TPH (GC/FID) Low Fraction	ND		0.108	1	05/07/2018 01:51	WG1107694
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	100		77.0-120		05/07/2018 01:51	WG1107694
(S) <i>a,a,a</i> -Trifluorotoluene(PID)	104		75.0-128		05/07/2018 01:51	WG1107694

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	75.9		4.32	1	05/05/2018 19:05	WG1107199
(S) <i>o</i> -Terphenyl	24.0		18.0-148		05/05/2018 19:05	WG1107199



Method Blank (MB)

(MB) R3307799-1 05/07/18 10:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.000			



L991141-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991141-01 05/07/18 10:05 • (DUP) R3307799-3 05/07/18 10:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	94.1	94.3	1	0.268		5

Laboratory Control Sample (LCS)

(LCS) R3307799-2 05/07/18 10:05

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	



WG1107694

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

L991141-01.02

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3307480-5 05/06/18 19:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000365	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120
(S) a,a,a-Trifluorotoluene(PID)	106			75.0-128

Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3307480-1 05/06/18 18:13 • (LCSD) R3307480-2 05/06/18 18:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0515	0.0520	103	104	71.0-121			1.05	20
Toluene	0.0500	0.0504	0.0508	101	102	72.0-120			0.804	20
Ethylbenzene	0.0500	0.0556	0.0561	111	112	76.0-121			0.977	20
Total Xylene	0.150	0.168	0.170	112	113	75.0-124			0.829	20
(S) a,a,a-Trifluorotoluene(FID)				97.9	101	77.0-120				
(S) a,a,a-Trifluorotoluene(PID)				103	103	75.0-128				

7 GI

8 AI

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3307480-3 05/06/18 18:56 • (LCSD) R3307480-4 05/06/18 19:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.30	5.10	96.3	92.7	70.0-136			3.86	20
(S) a,a,a-Trifluorotoluene(FID)				87.6	88.0	77.0-120				
(S) a,a,a-Trifluorotoluene(PID)				113	113	75.0-128				

WG1107694

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L991141-01.02

L991150-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L991150-04 05/07/18 03:15 • (MS) R3307480-6 05/07/18 03:36 • (MSD) R3307480-7 05/07/18 03:57

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.000558	0.0189	0.0211	36.7	41.1	1	10.0-146			11.0	29
Toluene	0.0500	ND	0.0127	0.0141	24.6	27.4	1	10.0-143			10.6	30
Ethylbenzene	0.0500	ND	0.0105	0.0115	21.0	23.1	1	10.0-147			9.58	31
Total Xylene	0.150	ND	0.0264	0.0296	17.6	19.8	1	10.0-149	J6	J6	11.5	30
(S) a,a,a-Trifluorotoluene(FID)					98.2	98.4		77.0-120				
(S) a,a,a-Trifluorotoluene(PID)					103	103		75.0-128				

Cp

Tc

Ss

Cn

Sr

L991150-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L991150-04 05/07/18 03:15 • (MS) R3307480-8 05/07/18 04:18 • (MSD) R3307480-9 05/07/18 04:39

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	0.685	0.760	10.9	12.3	1	10.0-147			10.5	30
(S) a,a,a-Trifluorotoluene(FID)					96.6	98.5		77.0-120				
(S) a,a,a-Trifluorotoluene(PID)					102	105		75.0-128				

GI

Al

Sc

Method Blank (MB)

(MB) R3307459-1 05/05/18 17:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	54.9			18.0-148



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3307459-2 05/05/18 17:16 • (LCSD) R3307459-3 05/05/18 17:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	50.0	32.3	35.1	64.5	70.3	50.0-150			8.48	20
(S) o-Terphenyl				73.1	78.2	18.0-148				





Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-05-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

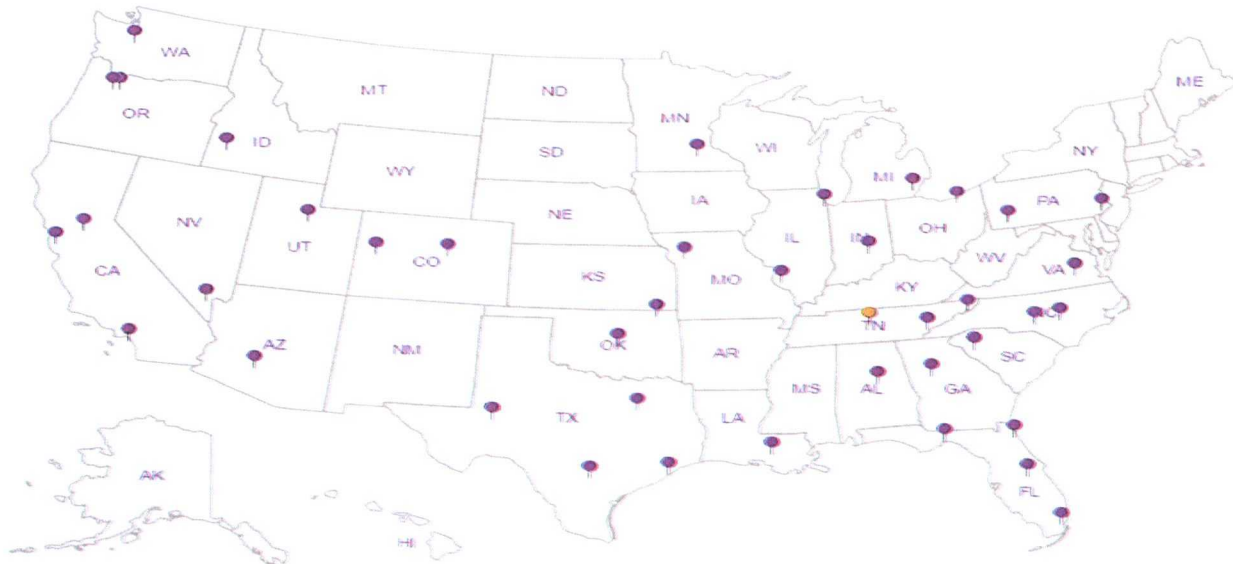
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

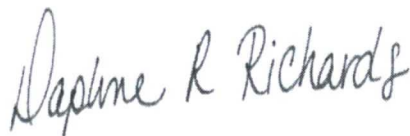
ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



Enduring Resources

Sample Delivery Group: L992702
Samples Received: 05/04/2018
Project Number:
Description: Spill Sampling
Site: N ESCAVADA UNIT #3134
Report To: James McDaniel
332 County Road 3100
Aztec, NM 87410

Entire Report Reviewed By:



Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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ONE LAB. NATIONWIDE.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SPILL AREA AFTER SCRAPE #1 L992702-01 Solid

Collected by
James McDanielCollected date/time
05/02/18 14:40Received date/time
05/04/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1107808	1	05/07/18 09:55	05/07/18 10:05	JAV
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1110194	1	05/11/18 10:14	05/11/18 20:28	DMW

¹ Cp² Tc

SPILL AREA AFTER SCRAPE #2 L992702-02 Solid

Collected by
James McDanielCollected date/time
05/02/18 14:45Received date/time
05/04/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1107808	1	05/07/18 09:55	05/07/18 10:05	JAV
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1110194	1	05/11/18 10:14	05/11/18 20:41	DMW

⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Technical Service Representative

¹ Cp² Tc³ Ss⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc



Collected date/time: 05/02/18 14:40

L992702

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	05/07/2018 10:05	WG1107808

1 Cp

2 Tc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	58.0		4.25	1	05/11/2018 20:28	WG1110194
C28-C40 Oil Range	43.5		4.25	1	05/11/2018 20:28	WG1110194
(S) o-Terphenyl	42.9		18.0-148		05/11/2018 20:28	WG1110194

3 Ss

4 Cn

6 Qc

7 GI

8 AI

9 Sc



Collected date/time: 05/02/18 14:45

L992702

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.6		1	05/07/2018 10:05	WG1107808

1 Cp

2 Tc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	93.3		4.32	1	05/11/2018 20:41	WG1110194
C28-C40 Oil Range	61.3		4.32	1	05/11/2018 20:41	WG1110194
(S) o-Terphenyl	55.1		18.0-148		05/11/2018 20:41	WG1110194

3 Ss

4 Cn

6 Qc

7 GI

8 AI

9 Sc

WG1107808

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

L992702-01,02

Method Blank (MB)

(MB) R3307799-1 05/07/18 10:05

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

Cp

²Tc³Ss⁴Cn⁵Sr

L991141-01 Original Sample (OS) • Duplicate (DUP)

(OS) L991141-01 05/07/18 10:05 • (DUP) R3307799-3 05/07/18 10:05

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.1	94.3	1	0.268		5

Laboratory Control Sample (LCS)

(LCS) R3307799-2 05/07/18 10:05

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3309128-1 05/11/18 15:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	67.1			18.0-148

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3309128-2 05/11/18 16:02 • (LCSD) R3309128-3 05/11/18 16:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	28.5	28.7	56.9	57.4	50.0-150			0.744	20
(S) o-Terphenyl				59.4	60.6	18.0-148				

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA - ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



ACCOUNT:
Enduring Resources

PROJECT:

SDG:
L992702

DATE/TIME:
05/14/18 07:12

PAGE:
10 of 12

[illegible]

Andy Vann

From: Daphne Richards
Sent: Thursday, May 10, 2018 1:18 PM
To: Login
Subject: Relog L991141 ENDRESANM

Please relog L991141-01 and -02 for DRORLA
Transfer TS data \$0 WG1107808

Thanks

✉ Daphne Richards
Project Manager

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