

**Frontier Field Services,
AKA Durango Midstream
Caviness 8" PPL**

Closure Report

**UL O, Section 13, T18S, R32E
Lea County, New Mexico**

NAPP2101836808

May 25, 2021



Prepared for:

**Durango Midstream
4200 E. Skelly Dr
Tulsa, OK**

By:

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

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May 25, 2021

Durango Midstream
Lea County, New Mexico

I. Company Contacts

Representative	Company	Telephone	E-mail
Harley Everhart	Durango Midstream	575-513-4922	heverhart@durangomidstream.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Durango Midstream to assess a spill area on the Caviness 8" Pipeline ROW. This site is situated in Unit Letter O, Section 13, Township 18S and Range 32E, in Lea county New Mexico.

According to the C-141: the cause of release was due to a hole developed in the pipeline and allowed the fluid to be released..

II. Surface and Ground Water

According to research of the website for the New Mexico Office of the State Engineer records; there is no record of groundwater in the immediate vicinity of the site location. However, the records indicated an average depth to water of over 140' bgs. for Township 18S and Range 32E.

IV. Characterization

The site has been remediated according to the NMOCD NMAC 19.15.29 published guidelines (July 24, 2018). The site ranking and soil screening levels as presented in the table below:

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

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V. Work Performed

On January 7th, 2021, SESI personnel, together with personnel from Durango Midstream were on site to evaluate and delineate the release site. The area around the release site was designated and flagged in order to delineate the spill area vertically, and horizontally. After the Arch Survey was completed, without findings, the area was sampled. All confirmation samples were grabbed on walls and bottom hole excavation and field tested for Total Petroleum Hydrocarbons, BTEX, and Chlorides. The samples were properly packaged, preserved, and transported to Hall Laboratories for analyses of Chloride (CL Method 300.0 Anions), Total Petroleum Hydrocarbons (TPH Method 8015), and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX Method 8021B). The table below is a recap of the results from the Hall Laboratory Analyses (Appendix C)

Durango Midstream Caviness 8" PPL Soil Sample Results: Hall Environmental Analysis Laboratory 03/31/2021									
SAMPLE ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO	TPH MRO
Area #1 E Wall	ND	ND	ND	ND	ND	ND	ND	12	ND
Area #1 N Wall	ND	ND	ND	ND	ND	ND	ND	ND	ND
Area #1 S Wall	ND	ND	ND	ND	ND	ND	ND	110	ND
Area #1 Bottom	ND	ND	ND	ND	ND	ND	ND	22	ND
Area #2 N Wall	ND	ND	ND	ND	ND	ND	ND	ND	ND
Area #2 S Wall	ND	ND	ND	ND	ND	ND	ND	ND	ND
Area #2 Bottom	ND	ND	ND	ND	ND	ND	ND	26	ND
Area #3 N Wall	ND	ND	ND	ND	ND	ND	ND	25	ND
Area #3 W Wall	ND	ND	ND	ND	ND	ND	ND	ND	ND
Area #3 S Wall	ND	ND	ND	ND	ND	ND	ND	ND	ND
Area #3 Bottom	ND	ND	ND	ND	ND	ND	ND	ND	ND

After receiving the confirmation samples on April 12th of 2021: based on the above soil analyses, and depth to groundwater, SESI personnel together with excavation equipment and personnel from Durango Midstream returned to the site to commence soil remediation activities. Impacted soils were transported to an NMOCD approved facility for disposal.

The impacted area was excavated to depths where soil screening levels for chloride were <600 ppm in pasture areas, TPH screening levels of >2,500 ppm, and BTEX levels of <50 ppm. All impacted soil was transported to an NMOCD approved disposal facility. The affected area on the pipeline ROW was backfilled with native soil.

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May 25, 2021

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VI. Conclusions

The spill area was excavated and remediated to the NMOCD approved work plan protocol. All impacted soil was transported to an NMOCD approved facility for disposal. Local soil was transported in for backfill material of the excavated area. The pasture area was restored with native topsoil.

SESI, on behalf of Durango Midstream, respectfully submits this closure report for your consideration and conclusion of the associated remediation permit.

VII. Figures & Appendices

Figure 1 – Site Map
Appendix A – Site Photographs
Appendix B – C-141
Appendix C – Analytical

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Durango Midstream
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Figure 1 Site Map

Durango Midstream

Caviness 8" PPL
DUR-21-001
O-13-T18S-R32E

Legend

-  Spill Area

32E



Google Earth



Caviness 8" PPL
May 25, 2021

Durango Midstream
Lea County, New Mexico

Appendix A

Site Photographs

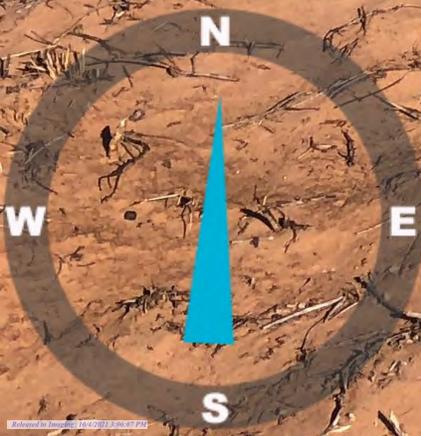
1/7/2021 9:35 AM
N 32.7426°, W 103.7179°
NM



1/7/2021 9:36 AM
N 32.7427°, W 103.7181°
NM



1/7/2021 9:37 AM
N 32.7425°, W 103.7181°
NM



1/7/2021 9:46 AM
N 32.7417°, W 103.7174°
NM

COC OPERATING LLC
CORBIN "13-A" FEDERAL #3
1980' FEL "G" 660' FSL
SECTION 13, T18S, R32E
NM-94197
LEA COUNTY, NEW MEXICO







Network: Aug 3, 2021 at 12:39:35 PM MDT

Local: Aug 3, 2021 at 12:39:35 PM MDT

N 32° 44' 33.370", W 103° 43' 6.114"

Hobbs NM 88240

United States



Network: Aug 3, 2021 at 12:35:57 PM MDT
Local: Aug 3, 2021 at 12:35:57 PM MDT
N 32° 44' 32.402", W 103° 43' 4.944"
Hobbs NM 88240
United States



Network: Aug 3, 2021 at 12:38:27 PM MDT

Local: Aug 3, 2021 at 12:38:27 PM MDT

N 32° 44' 33.761", W 103° 43' 4.457"

Hobbs NM 88240

United States



Network: Aug 3, 2021 at 12:37:19 PM MDT

Local: Aug 3, 2021 at 12:37:19 PM MDT

N 32° 44' 33.166", W 103° 43' 4.082"

Hobbs NM 88240

United States





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Durango Midstream
Lea County, New Mexico

Appendix B

C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2101836808
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Frontier Field Services	OGRID	221115
Contact Name	HARLEY EVERHART	Contact Telephone	575-513-4922
Contact email	HEVERHART@DURANGOMIDSTREAM.COM	Incident # (assigned by OCD)	NAPP2101836808
Contact mailing address	4200 EAST SKELLY DRIVE; TULSA, OK 74135		

Location of Release Source

Latitude N 32.742557 Longitude W -103.718072
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	CAVINESS 8 INCH PPL	Site Type	PIPELINE ROW
Date Release Discovered	01/07/2021	API# (if applicable)	N/A

Unit Letter	Section	Township	Range	County
O	13	18S	32E	LEA COUNTY, NM

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 65 BBLS	Volume Recovered (bbls) 45 BBLS
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20 BBLS	Volume Recovered (bbls) 10 BBLS
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A HOLE IN AN 8 INCH PIPELINE CAUSE THE OIL AND PRODUCED WATER SPILL

Incident ID	NAPP2101836808
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? THE SPILL HAS A VOLUME GREATER THAN 25 BBLS
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, BY HARLEY EVERHART OF FRONTIER FIELD SERVICES TO KERRY FULTNER OF NMOCD VIA TELEPHONE	

Initial Response

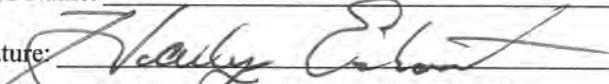
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

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

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

Printed Name: **HARLEY EVERHART** Title: **EHS ANALYST**
Signature:  Date: **01/18/21**
email: **HEVERHART@DURANGOMIDSTREAM.COM** Telephone: **575-513-4922**

OCD Only

Received by: _____ Date: _____

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Lea County, New Mexico

Appendix C

Analytical Data



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

April 12, 2021

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

RE: Caviness 8" PPL

OrderNo.: 2104080

Dear James Allen:

Hall Environmental Analysis Laboratory received 11 sample(s) on 4/2/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #1 East Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 9:00:00 AM

Lab ID: 2104080-001

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/8/2021 7:18:21 PM	59299
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	4/8/2021 12:50:43 PM	59265
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/8/2021 12:50:43 PM	59265
Surr: DNOP	93.6	70-130		%Rec	1	4/8/2021 12:50:43 PM	59265
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2021 7:45:00 PM	59180
Surr: BFB	95.0	70-130		%Rec	1	4/7/2021 7:45:00 PM	59180
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/7/2021 7:45:00 PM	59180
Toluene	ND	0.050		mg/Kg	1	4/7/2021 7:45:00 PM	59180
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2021 7:45:00 PM	59180
Xylenes, Total	ND	0.099		mg/Kg	1	4/7/2021 7:45:00 PM	59180
Surr: 4-Bromofluorobenzene	89.1	70-130		%Rec	1	4/7/2021 7:45:00 PM	59180

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #1 North Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 9:20:00 AM

Lab ID: 2104080-002

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/8/2021 7:30:42 PM	59299
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/8/2021 1:00:41 PM	59265
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/8/2021 1:00:41 PM	59265
Surr: DNOP	97.9	70-130		%Rec	1	4/8/2021 1:00:41 PM	59265
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2021 8:05:00 PM	59180
Surr: BFB	94.3	70-130		%Rec	1	4/7/2021 8:05:00 PM	59180
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/7/2021 8:05:00 PM	59180
Toluene	ND	0.050		mg/Kg	1	4/7/2021 8:05:00 PM	59180
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2021 8:05:00 PM	59180
Xylenes, Total	ND	0.10		mg/Kg	1	4/7/2021 8:05:00 PM	59180
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	4/7/2021 8:05:00 PM	59180

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #1 South Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 9:40:00 AM

Lab ID: 2104080-003

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/8/2021 7:43:03 PM	59299
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	110	9.8		mg/Kg	1	4/8/2021 1:10:42 PM	59265
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/8/2021 1:10:42 PM	59265
Surr: DNOP	96.2	70-130		%Rec	1	4/8/2021 1:10:42 PM	59265
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2021 8:25:00 PM	59180
Surr: BFB	104	70-130		%Rec	1	4/7/2021 8:25:00 PM	59180
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/7/2021 8:25:00 PM	59180
Toluene	ND	0.050		mg/Kg	1	4/7/2021 8:25:00 PM	59180
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2021 8:25:00 PM	59180
Xylenes, Total	ND	0.10		mg/Kg	1	4/7/2021 8:25:00 PM	59180
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	4/7/2021 8:25:00 PM	59180

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #1 Bottom Hole

Project: Caviness 8" PPL

Collection Date: 3/31/2021 10:00:00 AM

Lab ID: 2104080-004

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/8/2021 7:55:26 PM	59299
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	22	9.4		mg/Kg	1	4/8/2021 1:20:37 PM	59265
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/8/2021 1:20:37 PM	59265
Surr: DNOP	104	70-130		%Rec	1	4/8/2021 1:20:37 PM	59265
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/7/2021 8:45:00 PM	59180
Surr: BFB	94.6	70-130		%Rec	1	4/7/2021 8:45:00 PM	59180
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/7/2021 8:45:00 PM	59180
Toluene	ND	0.049		mg/Kg	1	4/7/2021 8:45:00 PM	59180
Ethylbenzene	ND	0.049		mg/Kg	1	4/7/2021 8:45:00 PM	59180
Xylenes, Total	ND	0.099		mg/Kg	1	4/7/2021 8:45:00 PM	59180
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	4/7/2021 8:45:00 PM	59180

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #2 North Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 10:20:00 AM

Lab ID: 2104080-005

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	4/8/2021 8:07:47 PM	59299
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2021 8:43:09 PM	59191
Surr: BFB	97.1	70-130		%Rec	1	4/7/2021 8:43:09 PM	59191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/7/2021 12:30:43 PM	59242
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/7/2021 12:30:43 PM	59242
Surr: DNOP	76.5	70-130		%Rec	1	4/7/2021 12:30:43 PM	59242
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	4/7/2021 8:43:09 PM	59191
Toluene	ND	0.050		mg/Kg	1	4/7/2021 8:43:09 PM	59191
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2021 8:43:09 PM	59191
Xylenes, Total	ND	0.10		mg/Kg	1	4/7/2021 8:43:09 PM	59191
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	4/7/2021 8:43:09 PM	59191
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	4/7/2021 8:43:09 PM	59191
Surr: Dibromofluoromethane	107	70-130		%Rec	1	4/7/2021 8:43:09 PM	59191
Surr: Toluene-d8	105	70-130		%Rec	1	4/7/2021 8:43:09 PM	59191

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
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #2 South Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 10:40:00 AM

Lab ID: 2104080-006

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/8/2021 8:20:08 PM	59299
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2021 10:08:56 PM	59191
Surr: BFB	100	70-130		%Rec	1	4/7/2021 10:08:56 PM	59191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/7/2021 1:09:30 PM	59242
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/7/2021 1:09:30 PM	59242
Surr: DNOP	76.0	70-130		%Rec	1	4/7/2021 1:09:30 PM	59242
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	4/7/2021 10:08:56 PM	59191
Toluene	ND	0.050		mg/Kg	1	4/7/2021 10:08:56 PM	59191
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2021 10:08:56 PM	59191
Xylenes, Total	ND	0.099		mg/Kg	1	4/7/2021 10:08:56 PM	59191
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	4/7/2021 10:08:56 PM	59191
Surr: 4-Bromofluorobenzene	86.9	70-130		%Rec	1	4/7/2021 10:08:56 PM	59191
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/7/2021 10:08:56 PM	59191
Surr: Toluene-d8	109	70-130		%Rec	1	4/7/2021 10:08:56 PM	59191

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
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2104080**

Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #2 Bottom Hole

Project: Caviness 8" PPL

Collection Date: 3/31/2021 11:00:00 AM

Lab ID: 2104080-007

Matrix: SOIL

Received Date: 4/2/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/9/2021 1:04:18 AM	59301
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/7/2021 10:37:25 PM	59191
Surr: BFB	103	70-130		%Rec	1	4/7/2021 10:37:25 PM	59191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	26	9.1		mg/Kg	1	4/7/2021 1:19:28 PM	59242
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/7/2021 1:19:28 PM	59242
Surr: DNOP	84.8	70-130		%Rec	1	4/7/2021 1:19:28 PM	59242
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	4/7/2021 10:37:25 PM	59191
Toluene	ND	0.048		mg/Kg	1	4/7/2021 10:37:25 PM	59191
Ethylbenzene	ND	0.048		mg/Kg	1	4/7/2021 10:37:25 PM	59191
Xylenes, Total	ND	0.096		mg/Kg	1	4/7/2021 10:37:25 PM	59191
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	4/7/2021 10:37:25 PM	59191
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	4/7/2021 10:37:25 PM	59191
Surr: Dibromofluoromethane	106	70-130		%Rec	1	4/7/2021 10:37:25 PM	59191
Surr: Toluene-d8	107	70-130		%Rec	1	4/7/2021 10:37:25 PM	59191

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
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: MB-59299	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59299	RunNo: 76565								
Prep Date: 4/8/2021	Analysis Date: 4/8/2021	SeqNo: 2712576	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59299	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59299	RunNo: 76565								
Prep Date: 4/8/2021	Analysis Date: 4/8/2021	SeqNo: 2712577	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID: MB-59301	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59301	RunNo: 76565								
Prep Date: 4/8/2021	Analysis Date: 4/9/2021	SeqNo: 2712617	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59301	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59301	RunNo: 76565								
Prep Date: 4/8/2021	Analysis Date: 4/9/2021	SeqNo: 2712618	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: MB-59242	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59242	RunNo: 76528								
Prep Date: 4/6/2021	Analysis Date: 4/7/2021	SeqNo: 2711249	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID: LCS-59242	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59242	RunNo: 76528								
Prep Date: 4/6/2021	Analysis Date: 4/7/2021	SeqNo: 2711250	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	68.9	141			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID: 2104080-005AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: Area #2 North Wall	Batch ID: 59242	RunNo: 76528								
Prep Date: 4/6/2021	Analysis Date: 4/7/2021	SeqNo: 2711251	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.8	48.88	7.305	103	15	184			
Surr: DNOP	4.0		4.888		81.7	70	130			

Sample ID: 2104080-005AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: Area #2 North Wall	Batch ID: 59242	RunNo: 76528								
Prep Date: 4/6/2021	Analysis Date: 4/7/2021	SeqNo: 2711252	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.6	47.80	7.305	99.0	15	184	5.57	23.9	
Surr: DNOP	3.9		4.780		82.4	70	130	0	0	

Sample ID: MB-59265	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59265	RunNo: 76564								
Prep Date: 4/7/2021	Analysis Date: 4/8/2021	SeqNo: 2712499	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: LCS-59265	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59265	RunNo: 76564								
Prep Date: 4/7/2021	Analysis Date: 4/8/2021	SeqNo: 2712501	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	68.9	141			
Surr: DNOP	5.1		5.000		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: ics-59180	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59180	RunNo: 76534								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711407	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	78.6	131			
Surr: BFB	1100		1000		110	70	130			

Sample ID: mb-59180	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59180	RunNo: 76534								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711408	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	930		1000		93.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: ics-59180	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 59180		RunNo: 76534							
Prep Date: 4/3/2021	Analysis Date: 4/7/2021		SeqNo: 2711440		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.0	80	120			
Toluene	0.95	0.050	1.000	0	95.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.2	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	70	130			

Sample ID: mb-59180	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 59180		RunNo: 76534							
Prep Date: 4/3/2021	Analysis Date: 4/7/2021		SeqNo: 2711441		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	0.90		1.000		90.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: ics-59191	SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batch ID: 59191		RunNo: 76538							
Prep Date: 4/3/2021	Analysis Date: 4/7/2021		SeqNo: 2711627		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.6	70	130			
Toluene	0.94	0.050	1.000	0	93.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.1	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.3	70	130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			

Sample ID: mb-59191	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batch ID: 59191		RunNo: 76538							
Prep Date: 4/3/2021	Analysis Date: 4/7/2021		SeqNo: 2711628		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: 1,2-Dichloroethane-d4	0.52		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.6	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.54		0.5000		108	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104080

12-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: ics-59191	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 59191	RunNo: 76538								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711635	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	70	130			
Surr: BFB	500		500.0		100	70	130			

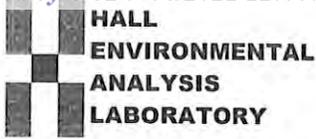
Sample ID: mb-59191	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 59191	RunNo: 76538								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711636	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	490		500.0		97.6	70	130			

Sample ID: 2104080-005AMS	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: Area #2 North Wall	Batch ID: 59191	RunNo: 76538								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711638	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.88	0	87.8	49.2	122			
Surr: BFB	500		497.5		100	70	130			

Sample ID: 2104080-005AMSD	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: Area #2 North Wall	Batch ID: 59191	RunNo: 76538								
Prep Date: 4/3/2021	Analysis Date: 4/7/2021	SeqNo: 2711639	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.78	0	90.8	49.2	122	2.92	20	
Surr: BFB	500		495.5		100	70	130	0	0	

Qualifiers:

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2104080
RcptNo: 1

Received By: Juan Rojas 4/2/2021 7:35:00 AM
Completed By: Cheyenne Cason 4/2/2021 9:13:00 AM
Reviewed By: JR 4/2/21

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C? Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: 10
4/2/21
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [checked] No [] NA [checked]

Person Notified: Sergio Date: 4/2/21
By Whom: Erin M/Erinc. Via: [] eMail [checked] Phone [] Fax [] In Person
Regarding: Missing all "Area #3" samples.
Client Instructions: Client has samples and will submit them on their own CDC.

16. Additional remarks: -ENM 4/2/21

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Contains 2 rows of data.

Chain-of-Custody Record

Client: SESI

Mailing Address: BOX 11613

Phone #: 575-397-0510

email or Fax#: 575-393-4388

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

Accreditation: Az Compliance
 NELAC Other _____
 EDD (Type) _____

Turn-Around Time:
 Standard Rush

Project Name: CAVINESS 8" PPL

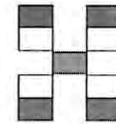
Project #: DUR 21-001

Project Manager: JAMES ALLEN

Sampler:
 On Ice: Yes No

of Coolers: 2 3.2 - 0.1 = 3.1

Cooler Temp (including CF): 2.1 - 0.1 = 2.0 (°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 Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TPH	CL	BTEX
03/31	0900	Soil	Area #1 East Wall	4oz - 1	COOL	001											✓	✓	✓
03/31	0920		Area #1 North Wall			002													
03/31	0940		Area #1 South Wall			003													
03/31	1000		Area #1 Bottom Hole			004													
03/31	1020		Area #2 North Wall			005													
03/31	1040		Area #2 South Wall			006													
03/31	1100		Area #2 Bottom Hole			007													
03/31	1120		Area #3 North Wall			008													
03/31	1140		Area #3 West Wall			009													
03/31	1200		Area #3 South Wall			010													
03/31	1220		Area #3 Bottom Hole			011													

Date: 4/1/21 Time: 1400 Relinquished by: [Signature]

Date: 4/1/21 Time: 1900 Relinquished by: [Signature]

Received by: [Signature] Via: _____ Date: 4/1/21 Time: 1400

Received by: [Signature] Via: _____ Date: 4/2/21 Time: 7:35

Remarks:
 * -008 thru -011 samples not provided * -ENM 4/2/21



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

April 13, 2021

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

RE: Caviness 8" PPL

OrderNo.: 2104268

Dear James Allen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/7/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104268**

Date Reported: **4/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #3 N Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 11:20:00 AM

Lab ID: 2104268-001

Matrix: SOIL

Received Date: 4/7/2021 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/12/2021 6:56:34 PM	59351
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	25	9.7		mg/Kg	1	4/9/2021 4:39:46 PM	59293
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/9/2021 4:39:46 PM	59293
Surr: DNOP	92.9	70-130		%Rec	1	4/9/2021 4:39:46 PM	59293
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/9/2021 5:14:17 PM	59289
Surr: BFB	94.7	70-130		%Rec	1	4/9/2021 5:14:17 PM	59289
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/9/2021 5:14:17 PM	59289
Toluene	ND	0.050		mg/Kg	1	4/9/2021 5:14:17 PM	59289
Ethylbenzene	ND	0.050		mg/Kg	1	4/9/2021 5:14:17 PM	59289
Xylenes, Total	ND	0.099		mg/Kg	1	4/9/2021 5:14:17 PM	59289
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	4/9/2021 5:14:17 PM	59289

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104268**

Date Reported: **4/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #3 W Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 11:40:00 AM

Lab ID: 2104268-002

Matrix: SOIL

Received Date: 4/7/2021 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/12/2021 7:08:58 PM	59351
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/9/2021 4:49:29 PM	59293
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/9/2021 4:49:29 PM	59293
Surr: DNOP	79.8	70-130		%Rec	1	4/9/2021 4:49:29 PM	59293
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/9/2021 6:24:41 PM	59289
Surr: BFB	96.0	70-130		%Rec	1	4/9/2021 6:24:41 PM	59289
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/9/2021 6:24:41 PM	59289
Toluene	ND	0.046		mg/Kg	1	4/9/2021 6:24:41 PM	59289
Ethylbenzene	ND	0.046		mg/Kg	1	4/9/2021 6:24:41 PM	59289
Xylenes, Total	ND	0.093		mg/Kg	1	4/9/2021 6:24:41 PM	59289
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	4/9/2021 6:24:41 PM	59289

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104268**

Date Reported: **4/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #3 S Wall

Project: Caviness 8" PPL

Collection Date: 3/31/2021 12:00:00 PM

Lab ID: 2104268-003

Matrix: SOIL

Received Date: 4/7/2021 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	4/12/2021 7:21:22 PM	59351
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/10/2021 3:11:38 PM	59293
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2021 3:11:38 PM	59293
Surr: DNOP	89.7	70-130		%Rec	1	4/10/2021 3:11:38 PM	59293
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/9/2021 6:48:27 PM	59289
Surr: BFB	95.6	70-130		%Rec	1	4/9/2021 6:48:27 PM	59289
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/9/2021 6:48:27 PM	59289
Toluene	ND	0.049		mg/Kg	1	4/9/2021 6:48:27 PM	59289
Ethylbenzene	ND	0.049		mg/Kg	1	4/9/2021 6:48:27 PM	59289
Xylenes, Total	ND	0.098		mg/Kg	1	4/9/2021 6:48:27 PM	59289
Surr: 4-Bromofluorobenzene	96.7	70-130		%Rec	1	4/9/2021 6:48:27 PM	59289

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2104268**

Date Reported: **4/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: Area #3 Bottom Hole

Project: Caviness 8" PPL

Collection Date: 3/31/2021 12:20:00 PM

Lab ID: 2104268-004

Matrix: SOIL

Received Date: 4/7/2021 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/12/2021 7:33:47 PM	59351
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/10/2021 3:25:08 PM	59293
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2021 3:25:08 PM	59293
Surr: DNOP	82.3	70-130		%Rec	1	4/10/2021 3:25:08 PM	59293
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/9/2021 7:11:56 PM	59289
Surr: BFB	93.7	70-130		%Rec	1	4/9/2021 7:11:56 PM	59289
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/9/2021 7:11:56 PM	59289
Toluene	ND	0.050		mg/Kg	1	4/9/2021 7:11:56 PM	59289
Ethylbenzene	ND	0.050		mg/Kg	1	4/9/2021 7:11:56 PM	59289
Xylenes, Total	ND	0.10		mg/Kg	1	4/9/2021 7:11:56 PM	59289
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	4/9/2021 7:11:56 PM	59289

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
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104268

13-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: MB-59351	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59351	RunNo: 76621								
Prep Date: 4/12/2021	Analysis Date: 4/12/2021	SeqNo: 2714873	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59351	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59351	RunNo: 76621								
Prep Date: 4/12/2021	Analysis Date: 4/12/2021	SeqNo: 2714874	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104268

13-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: MB-59293	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59293	RunNo: 76586								
Prep Date: 4/8/2021	Analysis Date: 4/9/2021	SeqNo: 2713306	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		119	70	130			

Sample ID: LCS-59293	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59293	RunNo: 76586								
Prep Date: 4/8/2021	Analysis Date: 4/9/2021	SeqNo: 2713308	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	103	68.9	141			
Surr: DNOP	5.0		5.000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104268

13-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: mb-59289	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713478	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	980		1000		97.9	70	130			

Sample ID: lcs-59289	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713479	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.6	78.6	131			
Surr: BFB	1100		1000		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104268

13-Apr-21

Client: Safety & Environmental Solutions

Project: Caviness 8" PPL

Sample ID: mb-59289	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713530	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	0.98		1.000		97.8	70	130			

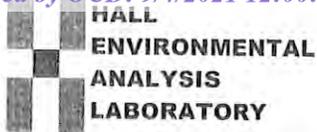
Sample ID: LCS-59289	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713531	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.9	80	120			
Toluene	0.95	0.050	1.000	0	94.8	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.1	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	70	130			

Sample ID: 2104268-001AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: Area #3 N Wall	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713533	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9785	0	91.8	76.3	120			
Toluene	0.92	0.049	0.9785	0	93.9	78.5	120			
Ethylbenzene	0.92	0.049	0.9785	0	93.8	78.1	124			
Xylenes, Total	2.7	0.098	2.935	0	92.6	79.3	125			
Surr: 4-Bromofluorobenzene	0.96		0.9785		97.8	70	130			

Sample ID: 2104268-001AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: Area #3 N Wall	Batch ID: 59289	RunNo: 76573								
Prep Date: 4/7/2021	Analysis Date: 4/9/2021	SeqNo: 2713534	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.023	0.9251	0	97.0	80	120	0.0729	20	
Toluene	0.91	0.046	0.9251	0	98.4	80	120	0.890	20	
Ethylbenzene	0.90	0.046	0.9251	0	97.5	80	120	1.76	20	
Xylenes, Total	2.7	0.093	2.775	0	96.7	80	120	1.33	20	
Surr: 4-Bromofluorobenzene	0.91		0.9251		98.2	70	130	0	0	

Qualifiers:

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2104268
RcptNo: 1

Received By: Juan Rojas 4/7/2021 9:50:00 AM

Completed By: Cheyenne Cason 4/7/2021 11:16:16 AM

Reviewed By: JR 4/7/21

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C? Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [checked] No []

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

Checked by: SPA 4.7.21

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 6 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.0, Good, [], [], []

Chain-of-Custody Record

Client: DESI

Mailing Address: Box 165

Phone #: 575-397-0510

email or Fax#: 575-393-4388

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

Accreditation: Az Compliance
 NELAC Other

EDD (Type)

Turn-Around Time: 5 Days

Standard Rush

Project Name: Business 8" PPL

Project #: DUR 21-001

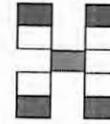
Project Manager: JAMES Allen

Sampler: Servicio Contratos

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 6.9 to 12.0 (°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 Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Other			
																	TPH	BTEX	CL-	
03/31	1120	SOPI	Arca#3 N Wall	402-1	COOL	2104268 001												✓	✓	✓
	1140	SOPI	Arca#3 W Wall			002												✓	✓	✓
	1200	SOPI	Arca#3 S Wall			003												✓	✓	✓
	1220	SOPI	Arca#3 Bottom Hole			004												✓	✓	✓

Date: 4/6/21 Time: 0815 Relinquished by: [Signature]

Date: 4/6/21 Time: 0815 Received by: [Signature] Via:

Date: 4/6/21 Time: 1900 Relinquished by: [Signature]

Date: 4/7/21 Time: 9:50 Received by: [Signature] Via: courier

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Caviness 8" PPL
May 25, 2021

Durango Midstream
Lea County, New Mexico

Appendix D

Arch Survey

NMCRIS No.: 147288

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 147288	2a. Lead Agency: US Bureau of Land Management Carlsbad Field Office	2b. Other Agency(ies):	3. Lead Agency Report No.:
--	---	-------------------------------	-----------------------------------

4. Title of Report: A Class III Archaeological Survey for the A Class III Archaeological Survey for the Durango Midstream Caviness 8" Pipeline Produced Water Release, Lea County, New Mexico Author(s) Galassini, Stacy K. and Joshua W. Broxson	5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
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6. Investigation Type

- Research Design Archaeological Survey/Inventory Architectural Survey/Inventory Test Excavation Excavation
 Collections/Non-Field Study Compliance Decision Based on Previous Inventory Overview/Lit Review Monitoring
 Ethnographic Study Site/Property Specific Visit Historic Structures Report Other

7. Description of Undertaking (what does the project entail?):

A pedestrian cultural resources survey was conducted at the request of Safety and Environmental Solutions, Inc. for a produced water release on federal land in Section 13 of T18S R32E. The release was confined to a blowout within the buried pipeline right-of-way and totals 0.02 acres. At the time of survey, the pipeline had been excavated (see Figures 1 and 2).

[] Continuation

8. Dates of Investigation: from: 18-Jan-2021 to: 18-Jan-2021	9. Report Date: 26-Jan-2021
---	------------------------------------

10. Performing Agency/Consultant: Boone Archaeological Resource Consultants, LLC.**Principal Investigator:** Stacy K. Galassini**Field Supervisor:** Erick Martinez**Field Personnel Names:** Erick Martinez**Historian / Other:**

11. Performing Agency/Consultant Report No.: BARC 01-21-06
--

12. Applicable Cultural Resource Permit No(s): BLM Permit No.: 190-2920-20-AA

NMCRIS No.: 147288

13. Client/Customer (project proponent):

Safety and Environmental Solutions, Inc.

Contact: Kathy Purvis

Address:

Phone: 575-397-0510

14. Client/Customer Project No.:

15. Land Ownership Status (must be indicated on project map):

Land Owner (By Agency)	Acres Surveyed	Acres in APE
US Bureau of Land Management Carlsbad Field Office	1.30	1.30
TOTALS	1.30	1.30

16. Records Search(es):

Date(s) of HPD/ARMS File Review: 15 Jan 2021	Name of Reviewer(s): S.K. Galassini	
Date(s) of Other Agency File Review:	Name of Reviewer(s):	Agency:

17. Survey Data:

a. Source Graphics [] NAD 27 [x] NAD 83 **Note: NAD 83 is the NMCRIS standard.**

USGS 7.5' (1:24,000) topo map Other topo map, Scale:

GPS Unit Accuracy <1.0m 1-10m 10-100m >100m Aerial Photo(s)

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name USGS Quad Code

Laguna Gatuna NW, NM	32103-F6
----------------------	----------

c. County(ies): LEA

d. Nearest City or Town: Lovington, NM

e. Legal Description:

Township (N/S) Range (E/W) Section

18S	32E	13
-----	-----	----

Projected legal description? [] Yes [x] No [] Unplatted

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

[] Continuation

18. Survey Field Methods:

Intensity: 100% coverage <100% coverage

NMCRIS No.: 147288

Configuration: block survey units linear survey units (l x w):
 other survey units (specify):

Scope: non-selective (all sites/properties recorded) selective/thematic (selected sites/properties recorded)

Coverage Method: systematic pedestrian coverage
 other method (describe):

Survey Interval (m): 15 **Crew Size:** 1 **Fieldwork Dates:** from: 18-Jan-2021 to: 18-Jan-2021

Survey Person Hours: 0.50 **Recording Person Hours:** 0.00 **Total Hours:** 0.50

Additional Narrative:

A 238 ft. x 238 ft. block survey was conducted using 50 ft. parallel transects across and beyond the release providing at least 100 ft. of clearance. The survey area totals 1.30 acres.

There is one previously recorded cultural resource within ¼ mile of the release area, LA 98839.

[] Continuation

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

According to the Natural Resources Conservation Service' online database, the release area soils consist of Kimbrough soils. These soils are associated with the Very Shallow 12-17" PZ ecological site (R077DY049TX) which typically supports black and blue grama grasslands with a sparse distribution of feather dalea, catclaw, and vine ephedra. The current vegetative community consists of mesquite, yucca, prickly pear, broom snakeweed, and desert forbs and grasses. The survey area falls on desert scrubland with low coppice dunes. The elevation ranges from 3,820 ft. to 3,830 ft. above mean sea level.

[] Continuation

20.a. Percent Ground Visibility: 51%-75% **b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

The survey area has been affected by a buried pipeline, tank battery, well pad, produced water release, pipeline excavation, cattle grazing, and erosion.

[] Continuation

21. CULTURAL RESOURCE FINDINGS **Yes, see next report section** **No, discuss why:**

One isolated manifestation was recorded during the survey. For a detailed description of the isolates, see Table 1.

[] Continuation

22. Attachments (check all appropriate boxes):

- USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- Copy of NMCRIS Map Check (required)
- LA Site Forms - new sites (with sketch map & topographic map) if applicable
- LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
- Historic Cultural Property Inventory Forms, if applicable
- List and Description of Isolates, if applicable
- List and Description of Collections, if applicable

23. Other Attachments:

Photographs and Log: Release Photographs

[] **Other Attachments (Describe):**

NMCRIS No.: 147288

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: Printed Name: Stacy K. Galassini

Signature: Stacy K. Galassini **Date:** 1/25/21 **Title:** Principal Investigator

25. Reviewing Agency

Reviewer's Name/Date:

Accepted []

Rejected []

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 1

Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

One isolated manifestation was recorded during the survey. Completion of the release remediation will result in no effect to cultural resources which are eligible for listing to the NRHP. The release remediation is recommended for approval. If cultural materials are encountered during the remediation process, work should be halted and archaeologists with the BLM/CFO should be notified immediately.

[] **Continuation**

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No. Field/Agency No. Eligible? (Y/N/U, applicable criteria)

NMCRIS No.: 147288

Previously recorded revisited sites/HCPI properties:

LA/HCPI No. Field/Agency No. Eligible? (Y/N/U, applicable criteria)

MONITORING LA NUMBER LOG (site form required)

Sites Discovered (site form required):

Previously recorded sites (site update form required):

LA No. Field/Agency No.

LA No. Field/Agency No.

Areas outside known nearby site boundaries monitored? [] Yes [] No, Explain why:

TESTING & EXCAVATION LA NUMBER LOG (site form required)

Tested LA number(s)

Excavated LA number(s)

Table 1. Isolated Manifestations.

IM No.	Description	Easting	Northing
IM01	Primary flake, tan quartzite, > 4 cm	620084	3623473



Figure 1. Release and Pipeline Excavation, View East.



Figure 2. Release and Pipeline Excavation, View West.

A Class III Archaeological Survey for the A Class III Archaeological Survey for the Durango Midstream Caviness 8" Pipeline Produced Water Release, Lea County, New Mexico

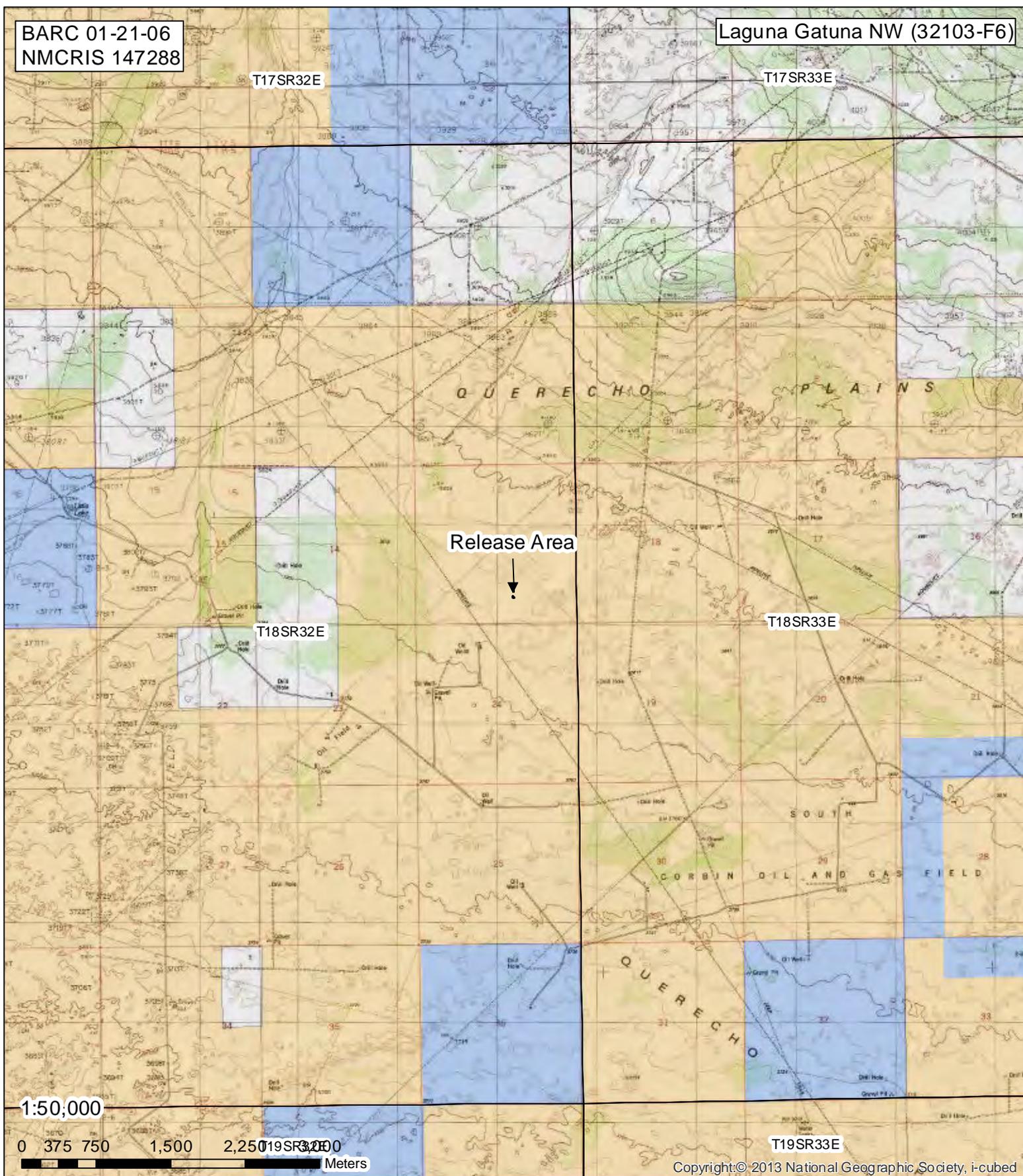
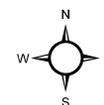


Figure 1. Project Area

- Release Area
- BLM
- Private
- NM State

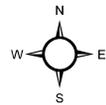


A Class III Archaeological Survey for the A Class III Archaeological Survey for the Durango Midstream Caviness 8" Pipeline Produced Water Release, Lea County, New Mexico



Figure 2. Current & Previous Survey

■ Survey Area
 ■ Previous Survey
 BLM
 Private
 NM State



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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAPP2101836808
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Frontier Field Services	OGRID	221115
Contact Name	HARLEY EVERHART	Contact Telephone	575-513-4922
Contact email	HEVERHART@DURANGOMIDSTREAM.COM	Incident # (assigned by OCD)	NAPP2101836808
Contact mailing address	4200 EAST SKELLY DRIVE; TULSA, OK 74135		

Location of Release Source

Latitude N 32.742557 Longitude W -103.718072
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	CAVINESS 8 INCH PPL	Site Type	PIPELINE ROW
Date Release Discovered	01/07/2021	API# (if applicable)	N/A

Unit Letter	Section	Township	Range	County
O	13	18S	32E	LEA COUNTY, NM

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 65 BBLS	Volume Recovered (bbls) 45 BBLS
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20 BBLS	Volume Recovered (bbls) 10 BBLS
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A HOLE IN AN 8 INCH PIPELINE CAUSE THE OIL AND PRODUCED WATER SPILL

Incident ID	NAPP2101836808
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? THE SPILL HAS A VOLUME GREATER THAN 25 BBLS
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, BY HARLEY EVERHART OF FRONTIER FIELD SERVICES TO KERRY FULTNER OF NMOCD VIA TELEPHONE	

Initial Response

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

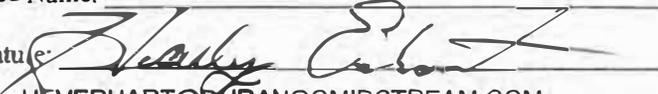
- The source of the release has been stopped.
- The impacted area has been secured to protect human health and the environment.
- Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- All free liquids and recoverable materials have been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

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

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

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

Printed Name: **HARLEY EVERHART** Title: **EHS ANALYST**

Signature:  Date: **01/18/21**

email: **HEVERHART@DURANGOMIDSTREAM.COM** Telephone: **575-513-4922**

OCD Only

Received by: Ramona Marcus Date: 9/10/2021

Incident ID	NAPP2101836808
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Harley Everhart Title: EHS Analyst
 Signature: *Harley Everhart* Date: 8/4/2021
 email: heverhart@durangomidstream.com Telephone: 575-513-4922

OCD Only

Received by: Chad Hensley Date: 10/04/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: *Chad Hensley* Date: 10/04/2021
 Printed Name: Chad Hensley Title: Environmental Specialist Advanced

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 46308

CONDITIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 46308
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	10/4/2021