Devon Energy Production Company
Cotton Draw Unit Trunkline

Closure Report
U/L L, Section 25, T25S, R31E
Eddy County, New Mexico
NAB1907953086 and NAB1907953961
2RP-5306 and 2RP-5307

July 15, 2020

Prepared for:

Devon Energy Production Company
6488 Seven Rivers Hwy
Artesia, New Mexico 88211

By:

Safety & Environmental Solutions, Inc.
703 East Clinton Street
Hobbs, New Mexico 88240

Company Contacts

Representative	Company	Telephone	E-mail
Tom Bynum	Devon Energy	580-748-1613	Tom.Bynum@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Devon Energy to perform a site assessment at the Cotton Draw Unit Trunkline, concerning two releases of produced water dated 2/28/19 and 3/2/19. This site is situated in Eddy County, Section 25, Township 25S, and Range 31E.

According to the C-141s: Approximately 23.55 bbls on 2/28/19 and 23.13 bbls on 3/2/19 of produced water were released because the saddle weld blew out on the camel-back of the pipeline. No fluids were recovered. Safety & Environmental Solutions was contacted to conduct a site assessment.

SESI personnel performed an assessment of the site in February of 2020 based on generator knowledge of the location of both leaks that occurred on top of each other. It was determined at that time that the legal description of the first leak was incorrectly stated on the initial C-141. The generator had used the well legal description instead of the legal description of the leak. SESI personnel mapped the leaks and performed delineation. During the assessment, SESI personnel observed a very clean area that appeared to have been recently tended to. Photos were taken of the area and included in this report.

Surface and Ground Water

Based on the NMOCD Oil and Gas map included in this report, surface water is not present within 3,000 feet of this release. The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 350’ bgs; however, since no wells less than 25 years old and less than a half mile away are known to be present, SESI will delineate this release to the most stringent criteria established by NMOCD.

Characterization

On February 17, 2020, SESI personnel performed sampling to determine if the release would need remediation. SESI advanced 6 auger holes within the leak areas. The samples were properly packaged and preserved and sent to Hall Laboratories for analyzation. The results of the testing are captured in the summary below:

Devon Energy Cotton Draw Trunkline Soil Sample Results: Hall Environmental Laboratories 2/17/20								
SAMPLE ID	**Chloride**	**DRO**	**MRO**	**GRO**	**Benzene**	**Toluene**	**Ethyl benzene**	**Total Xylenes**
AH1 @ SURFACE	**190**	ND	ND	ND	ND	ND	ND	ND
AH1 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND
AH2 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH2 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND
AH3 @ SURFACE	**180**	ND	ND	ND	ND	ND	ND	ND
AH3 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND
AH4 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH4 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND
AH5 @ SURFACE	**180**	ND	ND	ND	ND	ND	ND	ND
AH5 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ SURFACE	ND	ND	ND	ND	ND	ND	ND	ND
AH6 @ 1’	ND	ND	ND	ND	ND	ND	ND	ND

Closure Request

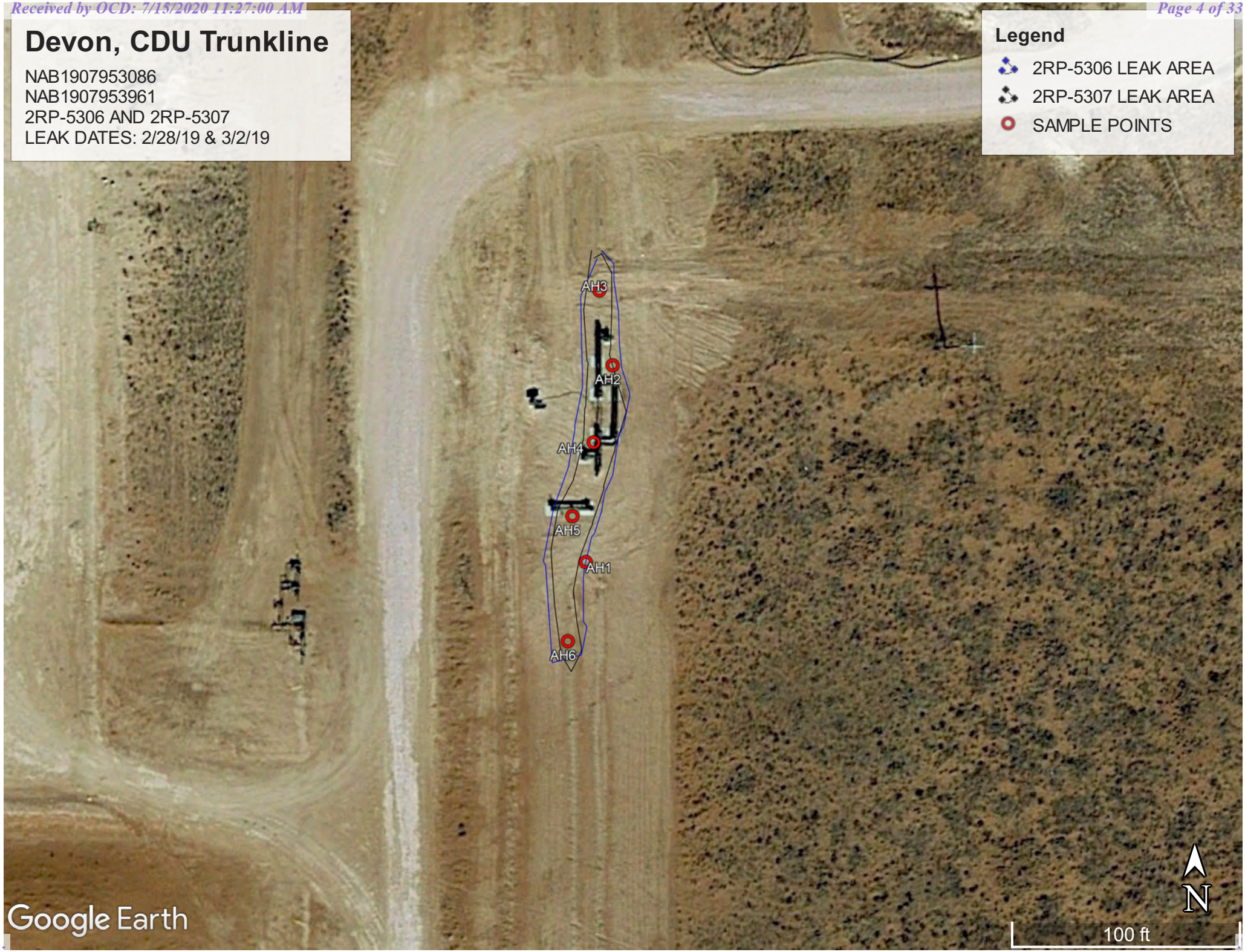
Based on the results of the delineation, SESI, along with Devon, believe this site does not require any further action. Consequently, SESI will not perform remediation, so no volume of material will be removed and no remediation pictures will be provided. Therefore SESI, on behalf of Devon Energy, respectfully requests closure approval.

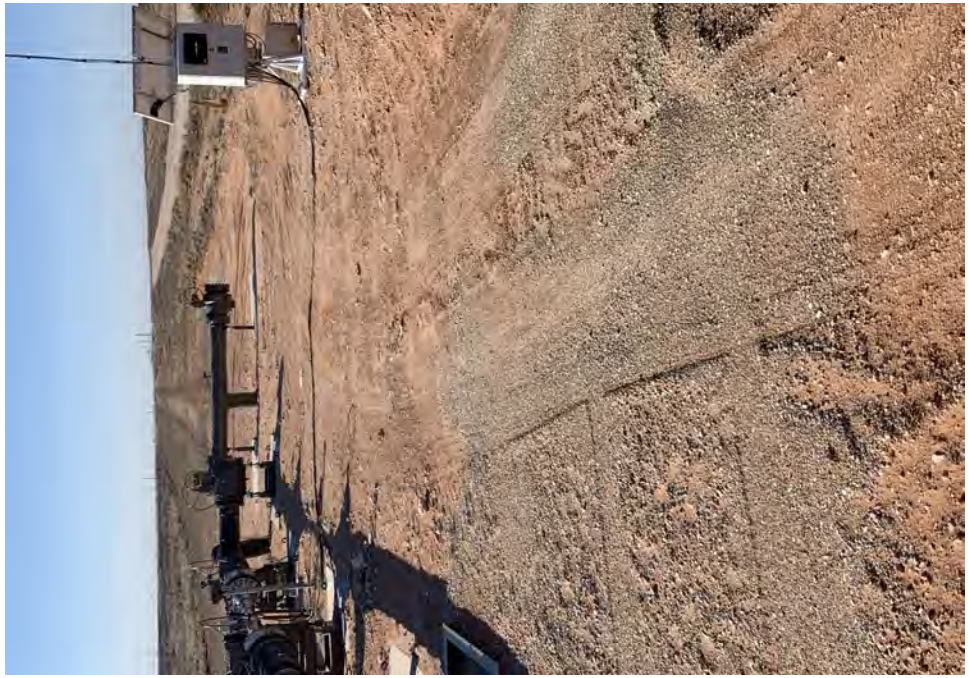
Supplemental Documentation for Closure

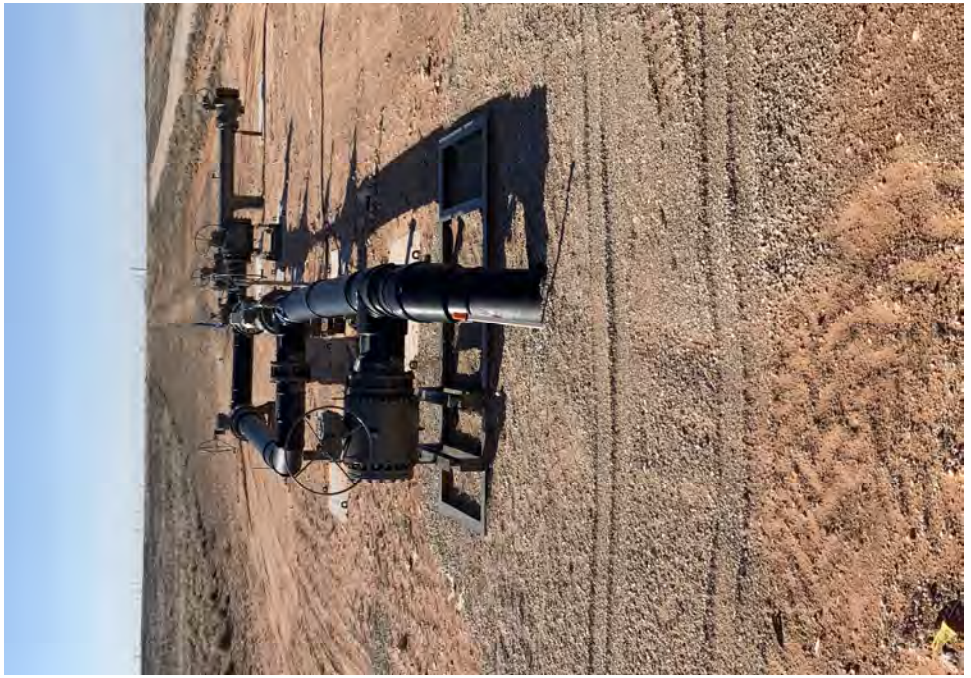
Map of Release with sample locations
Photos of Clean Area
NMOCD Oil and Gas Map
BLM Cave Karst Map
FEMA Floodplain Map
Laboratory Analysis 5/13/20
C-141, pages 3-6

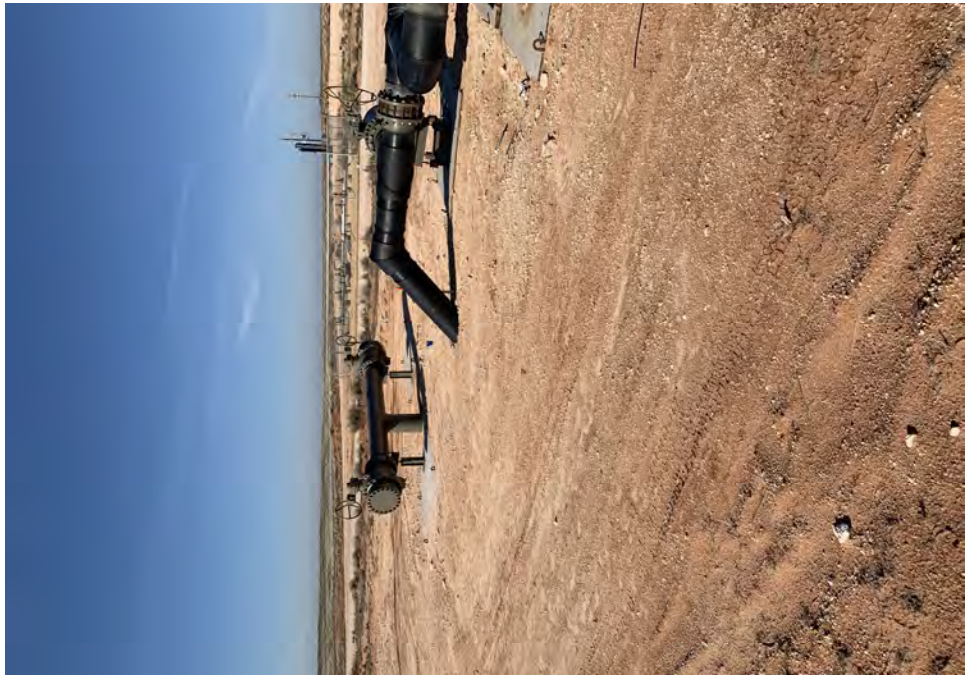
Devon, CDU Trunkline

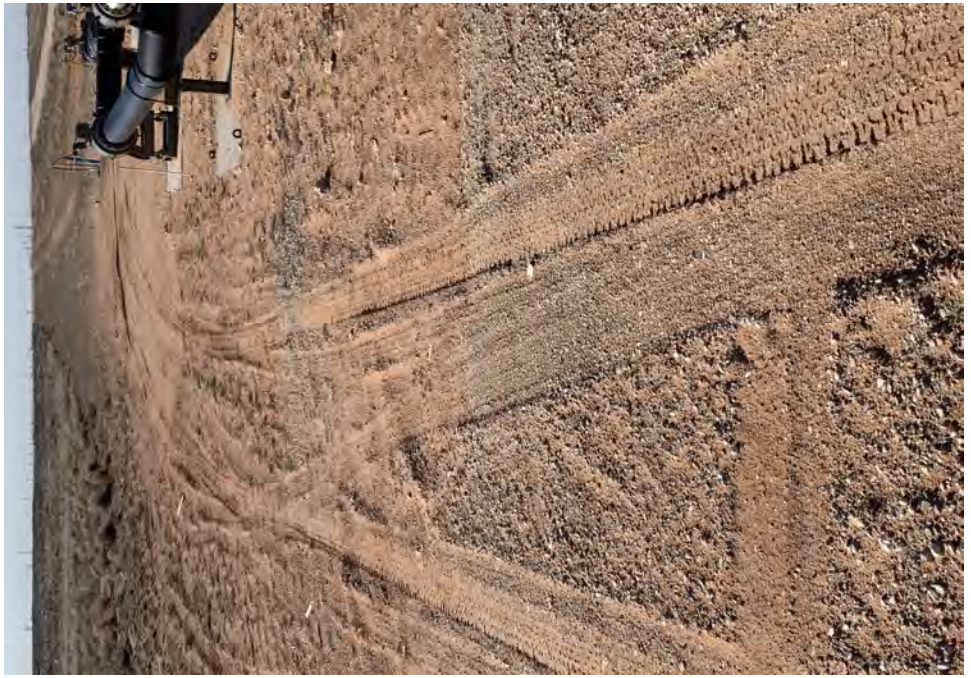
NAB1907953086
NAB1907953961
2RP-5306 AND 2RP-5307
LEAK DATES: 2/28/19 & 3/2/19



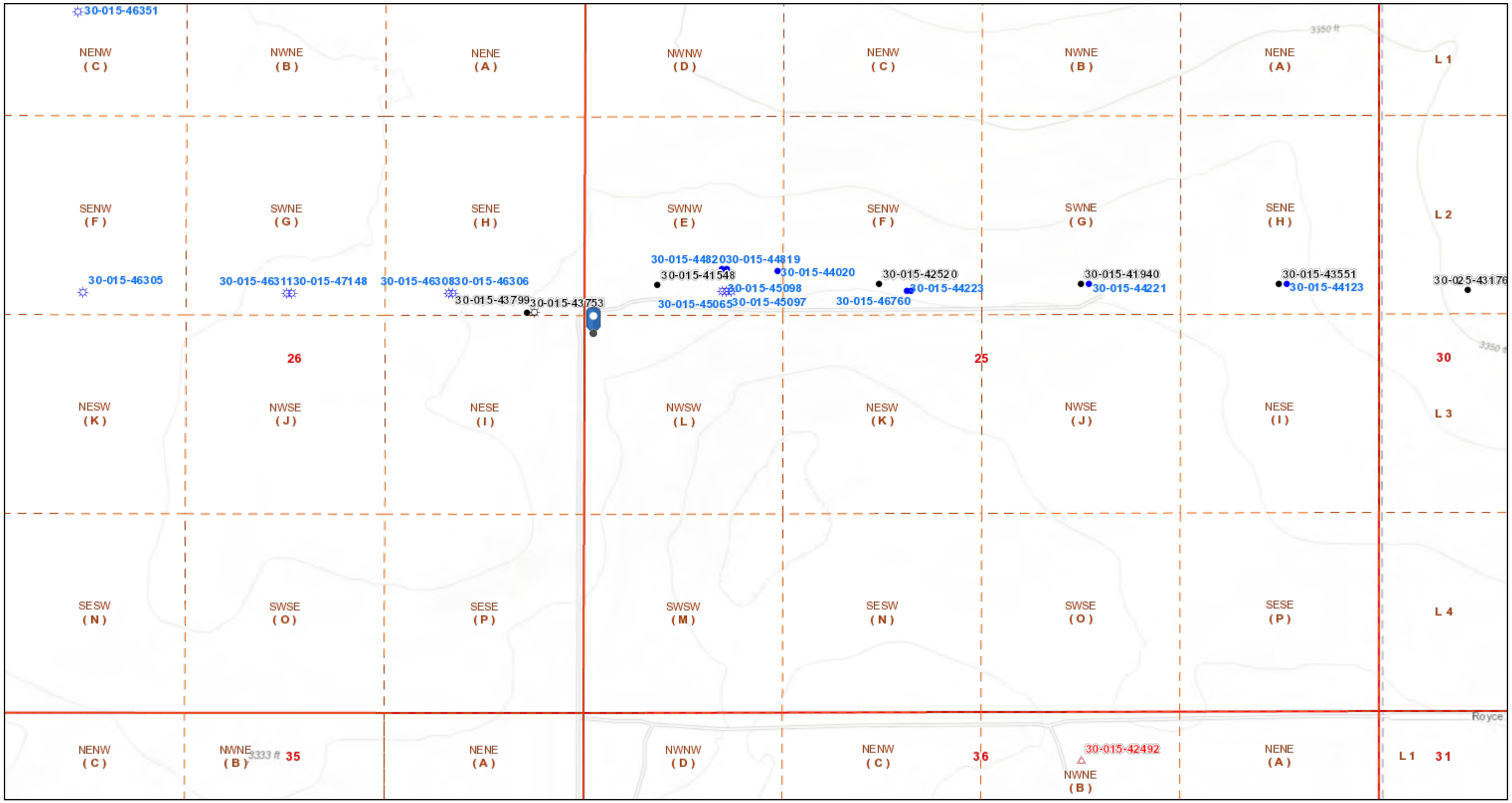








Devon, CDU TL



7/15/2020, 8:47:14 AM

1:9,028

0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Wells - Large Scale

- undefined
- Miscellaneous
- CO2, Active
- CO2, Cancelled
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New

Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,

Devon, Cotton Draw Unit Trunkline

NAB1907953086, NAB1907953961
2RP-5306, 2RP-5307
LEAK DATES: 2/28/19 & 3/2/19

Legend

- LOW POTENTIAL
- SAMPLE POINTS

Google Earth

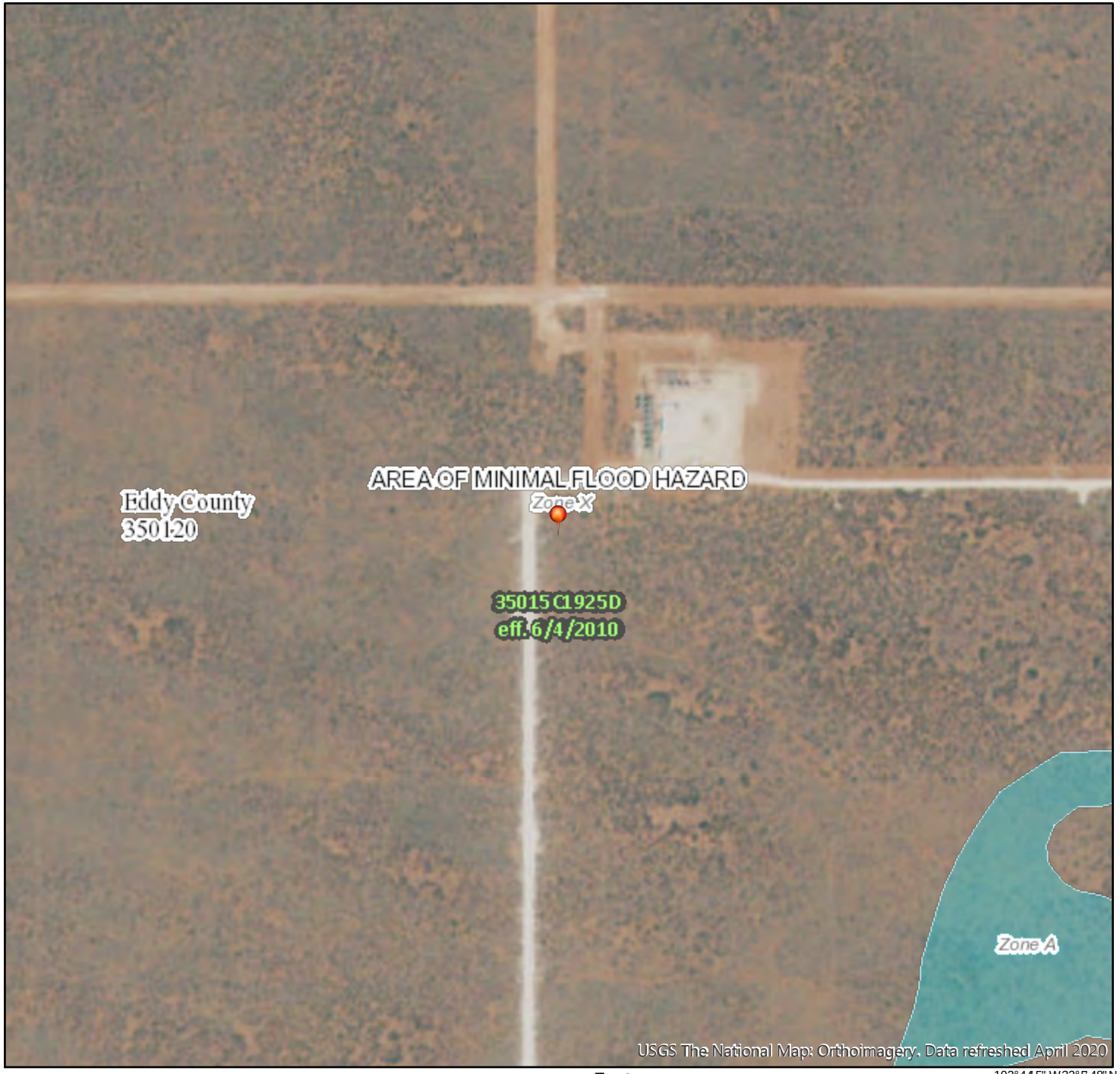
N

200 ft

National Flood Hazard Layer FIRMette

FEMA

103°44'43" W 32°6'19" N



103°44'5" W 32°5'48" N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/15/2020 at 10:16 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 27, 2020

Bob Allen

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

RE: Cotton Drum Trunkline 2RP 5306 2RP 5307 OrderNo.: 2002911

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 12 sample(s) on 2/21/2020 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-1 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 9:10:00 AM
Lab ID: 2002911-001 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	190	60		mg/Kg	20	2/24/2020 11:53:17 PM	50639
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/25/2020 3:52:03 AM	50593
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2020 3:52:03 AM	50593
Surr: DNOP	69.0	55.1-146		%Rec	1	2/25/2020 3:52:03 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/24/2020 11:55:22 PM	50586
Surr: BFB	79.4	66.6-105		%Rec	1	2/24/2020 11:55:22 PM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/24/2020 11:55:22 PM	50586
Toluene	ND	0.049		mg/Kg	1	2/24/2020 11:55:22 PM	50586
Ethylbenzene	ND	0.049		mg/Kg	1	2/24/2020 11:55:22 PM	50586
Xylenes, Total	ND	0.097		mg/Kg	1	2/24/2020 11:55:22 PM	50586
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	2/24/2020 11:55:22 PM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-1 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 9:20:00 AM
Lab ID: 2002911-002 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	2/25/2020 12:05:38 AM	50639
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/25/2020 4:14:08 AM	50593
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/25/2020 4:14:08 AM	50593
Surr: DNOP	70.8	55.1-146		%Rec	1	2/25/2020 4:14:08 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/25/2020 12:18:38 AM	50586
Surr: BFB	80.2	66.6-105		%Rec	1	2/25/2020 12:18:38 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 12:18:38 AM	50586
Toluene	ND	0.048		mg/Kg	1	2/25/2020 12:18:38 AM	50586
Ethylbenzene	ND	0.048		mg/Kg	1	2/25/2020 12:18:38 AM	50586
Xylenes, Total	ND	0.097		mg/Kg	1	2/25/2020 12:18:38 AM	50586
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/25/2020 12:18:38 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-2 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 9:30:00 AM
Lab ID: 2002911-003 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 12:50:27 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/25/2020 4:35:58 AM	50593
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/25/2020 4:35:58 AM	50593
Surr: DNOP	65.6	55.1-146		%Rec	1	2/25/2020 4:35:58 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 1:28:26 AM	50586
Surr: BFB	81.4	66.6-105		%Rec	1	2/25/2020 1:28:26 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 1:28:26 AM	50586
Toluene	ND	0.049		mg/Kg	1	2/25/2020 1:28:26 AM	50586
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 1:28:26 AM	50586
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 1:28:26 AM	50586
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	2/25/2020 1:28:26 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-2 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 9:45:00 AM
Lab ID: 2002911-004 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 1:52:10 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/25/2020 4:58:00 AM	50593
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/25/2020 4:58:00 AM	50593
Surr: DNOP	66.7	55.1-146		%Rec	1	2/25/2020 4:58:00 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/25/2020 1:51:38 AM	50586
Surr: BFB	81.2	66.6-105		%Rec	1	2/25/2020 1:51:38 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 1:51:38 AM	50586
Toluene	ND	0.048		mg/Kg	1	2/25/2020 1:51:38 AM	50586
Ethylbenzene	ND	0.048		mg/Kg	1	2/25/2020 1:51:38 AM	50586
Xylenes, Total	ND	0.097		mg/Kg	1	2/25/2020 1:51:38 AM	50586
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	2/25/2020 1:51:38 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-3 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 9:55:00 AM
Lab ID: 2002911-005 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	180	60		mg/Kg	20	2/25/2020 2:04:31 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/25/2020 5:19:56 AM	50593
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/25/2020 5:19:56 AM	50593
Surr: DNOP	70.8	55.1-146		%Rec	1	2/25/2020 5:19:56 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 2:14:51 AM	50586
Surr: BFB	78.4	66.6-105		%Rec	1	2/25/2020 2:14:51 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 2:14:51 AM	50586
Toluene	ND	0.049		mg/Kg	1	2/25/2020 2:14:51 AM	50586
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 2:14:51 AM	50586
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 2:14:51 AM	50586
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	2/25/2020 2:14:51 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-3 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 10:10:00 AM
Lab ID: 2002911-006 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 2:16:52 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/25/2020 5:42:00 AM	50593
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/25/2020 5:42:00 AM	50593
Surr: DNOP	67.6	55.1-146		%Rec	1	2/25/2020 5:42:00 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/25/2020 2:38:00 AM	50586
Surr: BFB	78.9	66.6-105		%Rec	1	2/25/2020 2:38:00 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 2:38:00 AM	50586
Toluene	ND	0.047		mg/Kg	1	2/25/2020 2:38:00 AM	50586
Ethylbenzene	ND	0.047		mg/Kg	1	2/25/2020 2:38:00 AM	50586
Xylenes, Total	ND	0.094		mg/Kg	1	2/25/2020 2:38:00 AM	50586
Surr: 4-Bromofluorobenzene	88.0	80-120		%Rec	1	2/25/2020 2:38:00 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-4 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 10:20:00 AM
Lab ID: 2002911-007 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	2/25/2020 2:29:13 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/25/2020 6:03:58 AM	50593
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/25/2020 6:03:58 AM	50593
Surr: DNOP	69.4	55.1-146		%Rec	1	2/25/2020 6:03:58 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/25/2020 3:01:11 AM	50586
Surr: BFB	79.7	66.6-105		%Rec	1	2/25/2020 3:01:11 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 3:01:11 AM	50586
Toluene	ND	0.048		mg/Kg	1	2/25/2020 3:01:11 AM	50586
Ethylbenzene	ND	0.048		mg/Kg	1	2/25/2020 3:01:11 AM	50586
Xylenes, Total	ND	0.097		mg/Kg	1	2/25/2020 3:01:11 AM	50586
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	2/25/2020 3:01:11 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-4 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 10:35:00 AM
Lab ID: 2002911-008 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	2/25/2020 2:41:34 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/25/2020 6:26:04 AM	50593
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 6:26:04 AM	50593
Surr: DNOP	67.6	55.1-146		%Rec	1	2/25/2020 6:26:04 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 3:24:22 AM	50586
Surr: BFB	80.5	66.6-105		%Rec	1	2/25/2020 3:24:22 AM	50586
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 3:24:22 AM	50586
Toluene	ND	0.049		mg/Kg	1	2/25/2020 3:24:22 AM	50586
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 3:24:22 AM	50586
Xylenes, Total	ND	0.098		mg/Kg	1	2/25/2020 3:24:22 AM	50586
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/25/2020 3:24:22 AM	50586

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-5 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 10:40:00 AM
Lab ID: 2002911-009 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	180	60		mg/Kg	20	2/25/2020 2:53:55 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/25/2020 6:48:01 AM	50593
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/25/2020 6:48:01 AM	50593
Surr: DNOP	73.8	55.1-146		%Rec	1	2/25/2020 6:48:01 AM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 9:47:13 AM	50588
Surr: BFB	87.4	66.6-105		%Rec	1	2/25/2020 9:47:13 AM	50588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 9:47:13 AM	50588
Toluene	ND	0.049		mg/Kg	1	2/25/2020 9:47:13 AM	50588
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 9:47:13 AM	50588
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 9:47:13 AM	50588
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	2/25/2020 9:47:13 AM	50588

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-5 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 10:50:00 AM
Lab ID: 2002911-010 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 3:06:16 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/25/2020 5:04:19 PM	50593
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/25/2020 5:04:19 PM	50593
Surr: DNOP	101	55.1-146		%Rec	1	2/25/2020 5:04:19 PM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/25/2020 10:57:23 AM	50588
Surr: BFB	84.9	66.6-105		%Rec	1	2/25/2020 10:57:23 AM	50588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/25/2020 10:57:23 AM	50588
Toluene	ND	0.047		mg/Kg	1	2/25/2020 10:57:23 AM	50588
Ethylbenzene	ND	0.047		mg/Kg	1	2/25/2020 10:57:23 AM	50588
Xylenes, Total	ND	0.094		mg/Kg	1	2/25/2020 10:57:23 AM	50588
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	2/25/2020 10:57:23 AM	50588

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-6 Surface
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 11:00:00 AM
Lab ID: 2002911-011 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 3:18:36 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/25/2020 5:26:26 PM	50593
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/25/2020 5:26:26 PM	50593
Surr: DNOP	103	55.1-146		%Rec	1	2/25/2020 5:26:26 PM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 12:07:42 PM	50588
Surr: BFB	83.3	66.6-105		%Rec	1	2/25/2020 12:07:42 PM	50588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 12:07:42 PM	50588
Toluene	ND	0.049		mg/Kg	1	2/25/2020 12:07:42 PM	50588
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 12:07:42 PM	50588
Xylenes, Total	ND	0.098		mg/Kg	1	2/25/2020 12:07:42 PM	50588
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	2/25/2020 12:07:42 PM	50588

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002911**
Date Reported: **2/27/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions
Client Sample ID: AH-6 1ft
Project: Cotton Drum Trunkline 2RP 5306 2RP 5
Collection Date: 2/17/2020 11:10:00 AM
Lab ID: 2002911-012 **Matrix:** SOIL
Received Date: 2/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 3:55:39 PM	50651
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/25/2020 5:48:26 PM	50593
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 5:48:26 PM	50593
Surr: DNOP	104	55.1-146		%Rec	1	2/25/2020 5:48:26 PM	50593
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 12:31:08 PM	50588
Surr: BFB	82.8	66.6-105		%Rec	1	2/25/2020 12:31:08 PM	50588
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/25/2020 12:31:08 PM	50588
Toluene	ND	0.049		mg/Kg	1	2/25/2020 12:31:08 PM	50588
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 12:31:08 PM	50588
Xylenes, Total	ND	0.098		mg/Kg	1	2/25/2020 12:31:08 PM	50588
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	2/25/2020 12:31:08 PM	50588

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002911**

27-Feb-20

Client: Safety & Environmental Solutions

Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **MB-50639** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **50639** RunNo: **66754**
Prep Date: **2/24/2020** Analysis Date: **2/24/2020** SeqNo: **2295479** Units: **mg/Kg**

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

Sample ID: **LCS-50639** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **50639** RunNo: **66754**
Prep Date: **2/24/2020** Analysis Date: **2/24/2020** SeqNo: **2295481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Sample ID: **MB-50651** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **50651** RunNo: **66788**
Prep Date: **2/25/2020** Analysis Date: **2/25/2020** SeqNo: **2297114** Units: **mg/Kg**

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

Sample ID: **LCS-50651** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **50651** RunNo: **66788**
Prep Date: **2/25/2020** Analysis Date: **2/25/2020** SeqNo: **2297115** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	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 Quanitative 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#: **2002911**

27-Feb-20

Client: Safety & Environmental Solutions

Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **LCS-50593** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **50593** RunNo: **66740**

Prep Date: **2/21/2020** Analysis Date: **2/25/2020** SeqNo: **2295415** 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	102	70	130			
Surr: DNOP	3.8		5.000		76.7	55.1	146			

Sample ID: **MB-50593** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **50593** RunNo: **66740**

Prep Date: **2/21/2020** Analysis Date: **2/25/2020** SeqNo: **2295421** 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	8.4		10.00		84.3	55.1	146			

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2002911**
27-Feb-20

Client: Safety & Environmental Solutions
Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **mb-50586**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **50586**	RunNo: **66747**							
Prep Date: **2/21/2020**	Analysis Date: **2/24/2020**	SeqNo: **2294758**	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	800		1000		80.2	66.6	105			

Sample ID: **lcs-50586**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **50586**	RunNo: **66747**							
Prep Date: **2/21/2020**	Analysis Date: **2/24/2020**	SeqNo: **2294759**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.7	80	120			
Surr: BFB	930		1000		93.0	66.6	105			

Sample ID: **mb-50588**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296837**	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	830		1000		83.5	66.6	105			

Sample ID: **lcs-50588**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296838**	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	94.8	80	120			
Surr: BFB	950		1000		94.7	66.6	105			

Sample ID: **2002911-010ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **AH-5 1ft**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296841**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.7	23.41	0	87.3	69.1	142			
Surr: BFB	860		936.3		91.4	66.6	105			

Sample ID: **2002911-010amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **AH-5 1ft**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296842**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 Quanitative 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#: **2002911**

27-Feb-20

Client: Safety & Environmental Solutions

Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **2002911-010amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **AH-5 1ft**	Batch ID: **50588**	RunNo: **66771**
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296842** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.6	23.13	0	83.6	69.1	142	5.56	20	
Surr: BFB	850		925.1		91.4	66.6	105	0	0	

Sample ID: **mb-50628**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **50628**	RunNo: **66771**
Prep Date: **2/24/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296862** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.0	66.6	105			

Sample ID: **lcs-50628**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **50628**	RunNo: **66771**
Prep Date: **2/24/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296863** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.2	66.6	105			

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 Quanitative 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#: **2002911**
27-Feb-20

Client: Safety & Environmental Solutions
Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **mb-50586**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **50586**	RunNo: **66747**							
Prep Date: **2/21/2020**	Analysis Date: **2/24/2020**	SeqNo: **2294795**	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	0.87		1.000		87.3	80	120			

Sample ID: **LCS-50586**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **50586**	RunNo: **66747**							
Prep Date: **2/21/2020**	Analysis Date: **2/24/2020**	SeqNo: **2294796**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.3	80	120			
Toluene	0.95	0.050	1.000	0	95.0	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.8	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.3	80	120			

Sample ID: **mb-50588**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296886**	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	0.92		1.000		92.3	80	120			

Sample ID: **LCS-50588**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **50588**	RunNo: **66771**							
Prep Date: **2/21/2020**	Analysis Date: **2/25/2020**	SeqNo: **2296887**	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	92.1	80	120			
Toluene	0.96	0.050	1.000	0	95.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2002911**

27-Feb-20

Client: Safety & Environmental Solutions

Project: Cotton Drum Trunkline 2RP 5306 2RP 5307

Sample ID: **2002911-009ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **AH-5 Surface** Batch ID: **50588** RunNo: **66771**

Prep Date: **2/21/2020** Analysis Date: **2/25/2020** SeqNo: **2296889** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.023	0.9346	0	83.0	78.5	119			
Toluene	0.83	0.047	0.9346	0	88.7	75.7	123			
Ethylbenzene	0.85	0.047	0.9346	0	91.4	74.3	126			
Xylenes, Total	2.6	0.093	2.804	0	93.2	72.9	130			
Surr: 4-Bromofluorobenzene	0.88		0.9346		94.6	80	120			

Sample ID: **2002911-009amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **AH-5 Surface** Batch ID: **50588** RunNo: **66771**

Prep Date: **2/21/2020** Analysis Date: **2/25/2020** SeqNo: **2296890** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9775	0	88.2	78.5	119	10.7	20	
Toluene	0.89	0.049	0.9775	0	90.9	75.7	123	6.99	20	
Ethylbenzene	0.91	0.049	0.9775	0	93.4	74.3	126	6.65	20	
Xylenes, Total	2.7	0.098	2.933	0	93.4	72.9	130	4.74	20	
Surr: 4-Bromofluorobenzene	0.93		0.9775		94.9	80	120	0	0	

Sample ID: **mb-50628** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296910** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	80	120			

Sample ID: **LCS-50628** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296911** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		95.1	80	120			

Qualifiers:

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

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

Sample Log-In Check List

Client Name: **Safety Env Solutions** Work Order Number: **2002911** RcptNo: **1**

Received By: Juan Rojas **2/21/2020 8:00:00 AM**

Completed By: **Isaiah Ortiz** **2/21/2020 8:35:58 AM** I-Ox

Reviewed By: YG 2/21/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

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

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

Adjusted? _____

Checked by: JR 2/21/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Not Present			
2	0.1	Good	Not Present			

Chain-of-Custody Record

Client: SESI

Mailing Address: 703 E. Clinton Hobbs NM 88240

Phone #: 575-397-0510

email or Fax#:

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

Accreditation ☐ NELAP ☐ Other ____

☐ EDD (Type) ____

Turn-Around Time: 5 day ☒ Standard ☐ Rush

Project Name: Cotton Draw Trunkline 2RP-5306 + 2RP-5307

Project #: DEV-20-018

Project Manager: Allen Bob

Sampler: [signature]

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.6-0=2.6 0.1-0=0.1

HEAL No. 2002911

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chlorides	Air Bubbles (Y or N)
02/17	0910	S	AH-1 Surface	1	Ice Only	-001	X		X									X	
	0920	S	AH-1 1ft	1		-002													
	0930	S	AH-2 Surface	1		-003													
	0945	S	AH-2 1ft	1		-004													
	0955	S	AH-3 Surface	1		-005													
	1010	S	AH-3 1ft	1		-006													
	1020	S	AH-4 Surface	1		-007													
	1035	S	AH-4 1ft	1		-008													
	1040	S	AH-5 Surface	1		-009													
	1050	S	AH-5 1ft	1		-010													
	1100	S	AH-6 Surface	1		-011													
02/17	1110	S	AH-6 1ft	1		-012	X		X									X	

Date	Time	Relinquished by:	Received by:	Date	Time
02/19/20	0730	[signature]	[signature]	2/20/20	0730
2/20/20	1900	[signature]	[signature] courier	2/21/20	8:00

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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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: _____ Title: _____

Signature: Tom Bynum _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: _____ Title: _____

Signature: Tom Bynum Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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: _____ Title: _____

Signature: Tom Bynum Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____ Date: _____

Printed Name: _____ Title: _____