

Incident ID	nOY1808043902
District RP	1RP-4995
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?	<u>&lt;51</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nOY1808043902
District RP	1RP-4995
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: Dale Woodall Title: Environmental ProfessionalSignature: Dale Woodall Date: 9/9/2022email: Dale.Woodall@dvn.com Telephone: 575-748-1838**OCD Only**Received by: Jocelyn Harimon Date: 09/08/2022

Incident ID	nOY1808043902
District RP	1R-4995
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## 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: Dale Woodall Title: Environmental Professional  
Signature: Dale Woodall Date: 9/9/2022  
email: Dale.Woodall@dm.com Telephone: 575-748-1838

**OCD Only**

Received by: Jocelyn Harimon Date: 09/08/2022

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
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## 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: Dale Woodall Title: EHS Professional  
Signature: Dale Woodall Date: 9/9/2022  
email: Dale.Woodall@dvn.com Telephone: 575-748-1838

**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: \_\_\_\_\_

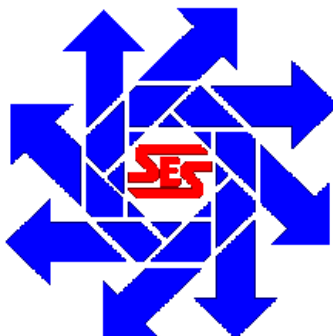
**DEVON ENERGY**  
**Cotton Draw Unit #506H**

**Closure Plan**

**UL N, Section 18, T25S, R32E**  
**Lea County, New Mexico**

**1RP-4995**  
**nOY1808043902**

**August 22, 2022**



**Prepared for:**

**Devon Energy**  
**6488 Seven Rivers Hwy**  
**Artesia, NM 88210**

**By:**

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

## Company Contacts

Representative	Company	Telephone	E-mail
Dale Woodall	Devon Energy	575-748-1838	<a href="mailto:Dale.Woodall@dvn.com">Dale.Woodall@dvn.com</a>
Bob Allen	SESI	575-397-0510	<a href="mailto:ballen@sesi-nm.com">ballen@sesi-nm.com</a>

## Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was contracted by Devon Energy to assess a release at the Cotton Draw Unit #506H location. This site is situated in UL N, Section 18, Township 25S and Range 32E, in Lea County New Mexico.

The C-141 1RP-4995 was also assigned two incident number, nOY1808043902 and was received on March 21, 2018, by Oliva Yu.

According to the C-141 filed on March 21, 2018, on March 2, 2018, during completion operations A 12" lay flat hose transferring produced water failed, released approximately 62 barrels, of which 0 barrels were recovered. The lay flat line runs parallel to the Cotton Draw Unit 506H location and the water that was release sprayed towards and landed on the pad location. The pumping operations were shut down and the hose was replaced, and supervisors were contacted for repairs and cleanup.

## Surface and Ground Water

According to the NMOCD Oil and Gas Map, there is no surface water within 3,000 feet of this location and spill areas. However, on 5/11/2022, Devon made Application for Permit to Drill a well with No Water Right (WR-07) #C-4618 to install a soil boring at 32.123872, -103.716859 to the depth of 51' BGS. On 5/19/2022, the application was approved, and the soil boring was installed to a depth BGS of 51' on 6/1/2022. The borehole was left open for the required 72 hours and no water was encountered. The soil boring was plugged on 6/6/2022. (See Evidence Documents).

## Characterization

The release has been fully delineated both vertically and horizontally, which includes establishing horizontal and vertical extent of delineation to the most stringent standard of 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene.

## Release Area (1RP-4995), Investigation

SESI personnel tracked and mapped the release and sampled the area to achieve both vertical and horizontal delineation. Samples were taken at the surface and 1-foot intervals until field testing indicated the samples to meet target levels. The horizontal extent samples are denoted on the map with an H beside the sample number. The samples were properly preserved and packaged and sent to Hall Environmental Labs for testing.

The results of the analytical are captured in the summary table below.

		TT-1 @ SURFACE	TT-1 @ 2'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
Chloride	SM4500CI-B	ND	<b>320</b>
DRO	TPH 8015M	ND	ND
MRO	TPH 8015M	ND	ND
GRO	TPH 8015M	ND	ND
Benzene	BTEX 8021B	ND	ND
Toluene	BTEX 8021B	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND
Total Xylenes	BTEX 8021B	ND	ND

		TT-2 @ SURFACE	TT-2 @ 3'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
Chloride	SM4500CI-B	ND	<b>350</b>
DRO	TPH 8015M	ND	ND
MRO	TPH 8015M	ND	ND
GRO	TPH 8015M	ND	ND
Benzene	BTEX 8021B	ND	ND
Toluene	BTEX 8021B	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND
Total Xylenes	BTEX 8021B	ND	ND

		TT-3 @ SURFACE	TT-3 @ 3'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
Chloride	SM4500CI-B	ND	<b>250</b>
DRO	TPH 8015M	ND	ND
MRO	TPH 8015M	ND	ND
GRO	TPH 8015M	ND	ND
Benzene	BTEX 8021B	ND	ND
Toluene	BTEX 8021B	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND
Total Xylenes	BTEX 8021B	ND	ND

		TT-4 @ SURFACE	TT-4 @ 2'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
Chloride	SM4500CI-B	<b>660</b>	<b>550</b>
DRO	TPH 8015M	ND	ND
MRO	TPH 8015M	ND	ND

		TT-4 @ SURFACE	TT-4 @ 2'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
GRO	TPH 8015M	ND	ND
Benzene	BTEX 8021B	ND	ND
Toluene	BTEX 8021B	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND
Total Xylenes	BTEX 8021B	ND	ND

		TT-5 @ SURFACE	TT-5 @ 1'	TT-5 @ 2'	TT-5 @ 3'
Analyte	Method	4/17/20	4/17/20	6/23/20	6/23/20
		mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B	670	840	330	ND
DRO	TPH 8015M	ND	ND	ND	ND
MRO	TPH 8015M	ND	ND	ND	ND
GRO	TPH 8015M	ND	ND	ND	ND
Benzene	BTEX 8021B	ND	ND	ND	ND
Toluene	BTEX 8021B	ND	ND	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND	ND	ND
Total Xylenes	BTEX 8021B	ND	ND	ND	ND

		TT-6 @ SURFACE	TT-6 @ 1'	TT-6 @ 2'	TT-6 @ 3'
Analyte	Method	4/17/20	4/17/20	6/23/20	6/23/20
		mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B	1500	1000	410	ND
DRO	TPH 8015M	ND	ND	ND	ND
MRO	TPH 8015M	ND	ND	ND	ND
GRO	TPH 8015M	ND	ND	ND	ND
Benzene	BTEX 8021B	ND	ND	ND	ND
Toluene	BTEX 8021B	ND	ND	ND	ND
Ethylbenzene	BTEX 8021B	ND	ND	ND	ND
Total Xylenes	BTEX 8021B	ND	ND	ND	ND

		TT-7 @ SURFACE	TT-7 @ 1'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
Chloride	SM4500CI-B	10000	ND
DRO	TPH 8015M	ND	ND
MRO	TPH 8015M	ND	ND
GRO	TPH 8015M	ND	ND



		TT-7 @ SURFACE	TT-7 @ 1'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
<b>Benzene</b>	BTEX 8021B	ND	ND
<b>Toluene</b>	BTEX 8021B	ND	ND
<b>Ethylbenzene</b>	BTEX 8021B	ND	ND
<b>Total Xylenes</b>	BTEX 8021B	ND	ND

		TT-8 @ SURFACE	TT-8 @ 1'
Analyte	Method	4/17/20	4/17/20
		mg/kg	mg/kg
<b>Chloride</b>	SM4500CI-B	<b>10000</b>	<b>330</b>
<b>DRO</b>	TPH 8015M	ND	ND
<b>MRO</b>	TPH 8015M	ND	ND
<b>GRO</b>	TPH 8015M	ND	ND
<b>Benzene</b>	BTEX 8021B	ND	ND
<b>Toluene</b>	BTEX 8021B	ND	ND
<b>Ethylbenzene</b>	BTEX 8021B	ND	ND
<b>Total Xylenes</b>	BTEX 8021B	ND	ND

		Northwest, Horizontal	North, Horizontal	Northeast, Horizontal	East, Horizontal
Analyte	Method	6/23/20	6/23/20	6/23/20	6/23/20
		mg/kg	mg/kg	mg/kg	mg/kg
<b>Chloride</b>	SM4500CI-B	<b>260</b>	<b>280</b>	<b>260</b>	<b>280</b>
<b>DRO</b>	TPH 8015M	ND	ND	ND	<b>75</b>
<b>MRO</b>	TPH 8015M	ND	ND	ND	ND
<b>GRO</b>	TPH 8015M	ND	ND	ND	ND
<b>Benzene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Toluene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Ethylbenzene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Total Xylenes</b>	BTEX 8021B	ND	ND	ND	ND

		Southeast, Horizontal	South, Horizontal	Southwest Horizontal	West, Horizontal
Analyte	Method	6/23/20	6/23/20	6/23/20	6/23/20
		mg/kg	mg/kg	mg/kg	mg/kg
<b>Chloride</b>	SM4500CI-B	<b>270</b>	<b>270</b>	<b>270</b>	<b>260</b>
<b>DRO</b>	TPH 8015M	<b>68</b>	<b>68</b>	<b>63</b>	<b>66</b>
<b>MRO</b>	TPH 8015M	ND	ND	ND	ND
<b>GRO</b>	TPH 8015M	ND	ND	ND	ND

		Southeast, Horizontal	South, Horizontal	Southwest Horizontal	West, Horizontal
Analyte	Method	6/23/20	6/23/20	6/23/20	6/23/20
		mg/kg	mg/kg	mg/kg	mg/kg
<b>Benzene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Toluene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Ethylbenzene</b>	BTEX 8021B	ND	ND	ND	ND
<b>Total Xylenes</b>	BTEX 8021B	ND	ND	ND	ND

### Release Area (1RP-4995), Action Plan

Based on the results above for vertical extent samples TT-1 through TT-8, and the results of the soil boring installed on 6/1/2022, SESI respectfully requests that this spill be closed using the closure criteria in Table 1 in Title 19 Chapter 15 part 21 NMAC. The soil boring proved the depth to groundwater within ½ mile of the spill location is over 51' BGS. The table allows leaving Chlorides of 10,000 mg/kg, TPH (GRO+DRO+MRO) of 2,500 mg/kg, GRO + DRO of 1,000 mg/kg, BTEX 50mg/kg, and Benzene of 10 mg/kg. Sampling results meet this criterion.

SESI, on behalf of Devon respectfully submits this closure plan and requests approval at your earliest convenience.

### Supplemental and Supporting Documentation

- Evidence Document 1: Map of Release area, with vertical and horizontal extent sample locations
- Evidence Document 2: NMOCD Oil and Gas Topo map detailing area water features
- Evidence Document 3: NMOSE Form WR-07
- Evidence Document 4 NMOSE Approval
- Evidence Document 5 Plugging Plan
- Evidence Document 6 Well Log
- Evidence Document 7: BLM Cave Karst map showing location in low potential area
- Evidence Document 8: FEMA demonstrating minimal flood hazards for this area
- Evidence Document 9: Lab analysis for Release area
- Evidence Document 10: Final C-141



Devon CDU 506H

Write a description for your map.

**Legend**

- Devon
- Sample Point

Sample Point 1  
Point 6  
Point 5  
Sample Point 3  
Point 5



Devon Soil Boring C4618



300 ft



Devon Soil Boring C-4618

Write a description for your map.

Legend

Devon

Devon Cotton Draw Unit 18 CTB

Sample Point 2 Sample Point 7

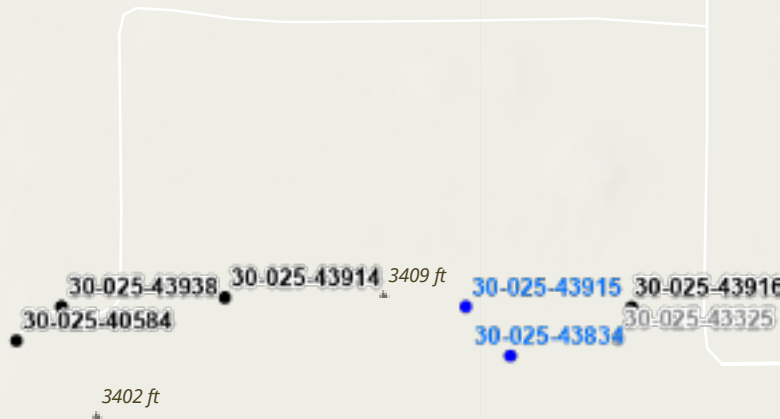
Devon CDU 506H

Devon Soil Boring C4618



2000 ft





File No.

C-4618 POD1

## NEW MEXICO OFFICE OF THE STATE ENGINEER



## WR-07 APPLICATION FOR PERMIT TO DRILL

## A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:

☐ Exploratory Well (Pump test)☐ Monitoring Well☐ Pollution Control  
And/Or Recovery☐ Construction Site/Public  
Works Dewatering☐ Mine Dewatering☐ Ground Source Heat Pump☒ Other(Describe): Groundwater Determination

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date:

Requested End Date:

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

## 1. APPLICANT(S)

Name: Devon Energy	Name:
Contact or Agent: Dale Woodall check here if Agent <input type="checkbox"/>	Contact or Agent: check here if Agent <input type="checkbox"/>
Mailing Address: 6488 7 Rivers Hwy	Mailing Address:
City: Artesia	City:
State: NM	State:
Zip Code: 88210	Zip Code:
Phone: 575-748-1838 Phone (Work): <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell	Phone: Phone (Work): <input type="checkbox"/> Home <input type="checkbox"/> Cell
E-mail (optional): Dale.Woodall@devn.com	E-mail (optional):

OSE OFF MAY 11 2022 09:53

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4618	Trn. No.: 725951	Receipt No.: 2-44561
Trans Description (optional): MON		
Sub-Basin: CUB	PCW/LOG Due Date: 5/19/23	

Page 1 of 3

**2. WELL(S)** Describe the well(s) applicable to this application.

**Location Required:** Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).

District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)  
☐ NM West Zone  
☐ NM East Zone  
☐ NM Central Zone

☐ UTM (NAD83) (Meters)  
☐ Zone 12N  
☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10<sup>th</sup> of second)

Well Number (If known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C- POD1(TW-1)	-103°43'0.89"	32°7'25.94"	SW SE SW Sec.18 T25S R32S NMPM

**NOTE:** If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)  
 Additional well descriptions are attached: ☐ Yes ☒ No If yes, how many \_\_\_\_\_

Other description relating well to common landmarks, streets, or other:  
 Site ID:23  
 Location Name:Cotton Draw Unit 507H

Well is on land owned by: Bureau of Land Management

**Well Information:** NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☒ No  
 If yes, how many \_\_\_\_\_

Approximate depth of well (feet): 55	Outside diameter of well casing (inches): 2.375 or 1.315
Driller Name: Jackie D. Atkins	Driller License Number: 1249

**3. ADDITIONAL STATEMENTS OR EXPLANATIONS**

A Soil Boring to determine depth up to 55 feet. Temporary PVC well material will be placed to total depth and secured at surface. Temporary well will be in place for minimum of 72 hours. If ground water is encountered the boring will be plugged immediately using augers as tremie to land a slurry of Portland TYPE III Neat cement less than 6.0 gallons of water per 94 lb. sack. If no water is encountered then drill cuttings will be used to (10) ten feet of land surface and plugged using hydrated bentonite.

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FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-4618

Trn No.: 725951

Page 2 of 3



**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<b>Exploratory:</b> <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	<b>Pollution Control and/or Recovery:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge.	<b>Construction De-Watering:</b> <input type="checkbox"/> Include a description of the proposed dewatering operation. <input type="checkbox"/> The estimated duration of the operation. <input type="checkbox"/> The maximum amount of water to be diverted. <input type="checkbox"/> A description of the need for the dewatering operation, and. <input type="checkbox"/> A description of how the diverted water will be disposed of.	<b>Mine De-Watering:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water.
<b>Monitoring:</b> <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	<b>Ground Source Heat Pump:</b> <input type="checkbox"/> Include a description of the geothermal heat exchange project. <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), Dale Woodall (Devon Energy)

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Dale Woodall

(Dale Woodall - Apr 25, 2022 12:24 MST)

Applicant Signature

Applicant Signature

#### ACTION OF THE STATE ENGINEER

This application is:

☒ approved

☐ partially approved

☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 19<sup>th</sup> day of May, 20 22, for the State Engineer,

Mike A. Hamman, P.E.

State Engineer

USE DIST MAY 11 2022 AM 8:54

By: K. Parekh  
Signature

Print

Title: Water Resources Manager I  
Print

FOR USE INTERNAL USE

Application for Permit, Form WR-07

File No.:

C-4618

Trn No.:

725951

Page 3 of 3



**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL**

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04618 POD1

File Number: C 04618

Trn Number: 725951

page: 1

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.  
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: C 04618 POD1

File Number: C 04618

Trn Number: 725951

page: 2

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

LOG      The Point of Diversion C 04618 POD1 must be completed and the Well Log filed on or before 05/19/2023.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

**ACTION OF STATE ENGINEER**

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 05/11/2022	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 19 day of May A.D., 2022

Mike A. Hamman, P.E., State Engineer

By: K. Parekh  
KASHYAP PAREKH

Trn Desc: C 04618 POD1

File Number: C 04618  
Trn Number: 725951

page: 3



# NEW MEXICO OFFICE OF THE STATE ENGINEER

## Coordinates UTM - NAD 83 (m) - Zone 13

Easting 621041.661

Northing 3554886.337

## State Plane - NAD 83 (ft) - Zone E

Easting 732184.482

Northing 409344.773

## Degrees Minutes Seconds

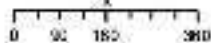
Latitude 32 : 7 : 25.940000

Longitude -103 : 43 : 0.690000

Location pulled from Coordinate Search



1:4,514



## Image Info

Source: Maxar

Date: 5/16/2021

Resolution (m): 0.5

Accuracy (m): 5

## Spatial Information

OSE Administrative Area: Lea

County: Lea

Groundwater Basin: Carlsbad

Abstract Area: Carlsbad 72-12-1

Carlsbad Underground Basin  
Sub-Basin: Lower Pecos-Red Bluff Reservoir

Land Grant: Not in Land Grant

Restrictions:

## PLSS Description

SESWSESW Qtr of Sec 18 of 025S 032E

Derived from GADN801-QM Sec. locations are  
calculated and are only approximations

## POD Information

Owner:

File Number:

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose:

Calculated PLUS	●	Carson County Parcels 2021	□	Rio Arriba County Parcels 2021	□	Santa Fe County Parcels 2021
Coord Search Location	◆	Chaves County Parcels 2021	□	Grant County Parcels 2021	□	
Water Right Regulations	○	Cibola County Parcels 2021	□	Harding County Parcels 2021	□	
Close Area	□	Colfax County Parcels 2021	□	Hidalgo County Parcels 2021	□	
USGS District Boundary	□	Curry County Parcels 2021	□	Huerfano County Parcels 2021	□	
Federal Land	□	De Baca County Parcels 2021	□	Lincoln County Parcels 2021	□	
County	●	Doña Ana County Parcels 2021	□	McKinley County Parcels 2021	□	
Terrell's County Parcels 2021	□	El Paso County Parcels 2021	□	Mora County Parcels 2021	□	
		Eschscholtz County Parcels 2021	□	Otero County Parcels 2021	□	
		Grant County Parcels 2021	□	Quincy County Parcels 2021	□	
		Harding County Parcels 2021	□	Santa Cruz County Parcels 2021	□	
		Hidalgo County Parcels 2021	□	Sandoval County Parcels 2021	□	
		Huerfano County Parcels 2021	□	San Juan County Parcels 2021	□	
		Lincoln County Parcels 2021	□	San Miguel County Parcels 2021	□	
		McKinley County Parcels 2021	□			
		Mora County Parcels 2021	□			
		Otero County Parcels 2021	□			
		Quincy County Parcels 2021	□			
		Santa Cruz County Parcels 2021	□			
		Sandoval County Parcels 2021	□			
		San Juan County Parcels 2021	□			
		San Miguel County Parcels 2021	□			

5/17/20

Source: State of New Mexico, Department of Natural Resources, Bureau of Land Management, 2021. All rights reserved. This report is for informational purposes only and does not constitute a warranty of accuracy. The user assumes all liability for any use of this report. The user agrees to hold the State of New Mexico harmless from any and all claims, damages, or liabilities arising from the use of this report.



Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Mbr: 725951  
File Mbr: C 04618

May, 24, 2022

DALE WOODALL  
DEVON ENERGY  
6488 7 RIVERS HWY  
ARTESIA, NM 88210

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

A handwritten signature in blue ink, appearing to read "Aracena Ramirez", is written over the typed name.

Aracena Ramirez  
(575)622-6521

Enclosure

explores

COPY FOR:

US - O&amp;G Sub

Form 4-210  
(December 1948)

5934

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTOffice New MexicoSerial LC 061873

NONCOMPETITIVE

LEASE OF OIL AND GAS LANDS UNDER THE ACT OF  
FEBRUARY 25, 1920, AS AMENDED

THIS INDENTURE OF LEASE, entered into, in triplicate, as of the **MAR 1 1951**  
day of March, by and between the UNITED STATES OF AMERICA, through the  
Bureau of Land Management, party of the first part, and Jack B. Shaw  
Box 383  
Artesia, New Mexico

party of the second part, hereinafter called the lessee, under, pursuant, and  
subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437),  
as amended, hereinafter referred to as the act, and to all reasonable regulations  
of the Secretary of the Interior now or hereafter in force when not inconsistent  
with any express and specific provisions herein, which are made a part hereof,  
WITNESSETH:

SECTION 1. Rights of Lessee.—That the lesser, in consideration of rents and  
royalties to be paid, and the conditions and covenants to be observed as herein set  
forth, does hereby grant and lease to the lessee the exclusive right and privilege  
to drill for, mine, extract, remove, and dispose of all the oil and gas deposits  
except helium gas in or under the following-described tracts of land situated ~~in~~  
~~XXXXX~~

T. 25 S., R. 32 E., NMPL, New Mexico

Sec. 7, Lots 3, 4, E13C1, SE1

8, All

9, All

17, All, Sub

18, All

containing 2398.49 acres, more or less, together with the right to construct and  
maintain thereupon all works, buildings, plants, waterways, roads, telegraph or  
telephone lines, pipe lines, reservoirs, tanks, pumping stations, or other struc-  
tures necessary to the full enjoyment thereof, for a period of 8 years, and so long  
thereafter as oil or gas is produced in paying quantities: subject to any unit  
agreement heretofore or hereafter approved by the Secretary of the Interior, the  
provisions of said agreement to govern the lands subject thereto when such agree-  
ments with the terms of this lease occur.

SEC. 2. In consideration of the foregoing, the lessee hereby agrees:  
(a) Bonds.—(1) To maintain any bond furnished by the lessee as a condition  
for the issuance of this lease. (2) If the lease is issued noncompetitively, to  
furnish a bond in a sum double the amount of the \$1 per acre annual rental, but not  
less than \$1,000 nor more than \$5,000, upon the inclusion of any part of the leased  
land within the geologic structure of a producing oil or gas field. (3) To furnish  
prior to beginning of drilling operations and maintain at all times thereafter as  
required by the lesser a bond in the penal sum of \$5,000 with approved corporate  
surety, or with deposit of United States bonds as surety therefor, conditioned upon  
compliance with the terms of this lease, unless a bond in that amount is already  
being maintained or unless such a bond furnished by an approved operator of the  
lease is accepted.

(1)

10-50708-4



Until a general lease bond is filed a noncompetitive lessee will be required to furnish and maintain a bond in the penal sum of not less than \$1,000 in those cases in which a bond is required by law for the protection of the owners of surface rights. In all other cases where a bond is not otherwise required, a \$1,000 bond must be filed for compliance with the lease obligations not less than 90 days before the due date of the next unpaid annual rental, but this requirement may be successively dispensed with by payment of each successive annual rental not less than 90 days prior to its due date.

(b) Cooperative or unit plan.—Within 30 days of demand, or if the land is within an approved unit plan, in the event such a plan is terminated prior to the expiration of this lease, within 30 days of demand made thereafter, to subscribe to and to operate under such reasonable cooperative or unit plan for the development and operation of the area, field, or pool, or part thereof, embracing the lands included herein as the Secretary of the Interior may determine to be practicable and necessary or advisable, which plan shall adequately protect the rights of all parties in interest, including the United States.

(c) Wells.—(1) To drill and produce all wells necessary to protect the leased land from drainage by wells on lands not the property of the lessor or lands of the United States leased at a lower royalty rate, or in lieu of any part of such drilling and production, with the consent of the Director of the Geological Survey, to compensate the lessor in full each month for the estimated loss of royalty through drainage in the amount determined under instructions of said Secretary; (2) at the election of the lessee, to drill and produce other wells in conformity with any system of well spacing or production allotments affecting the field or area in which the leased lands are situated, which is authorized and sanctioned by applicable law or by the Secretary of the Interior; and (3) promptly after due notice in writing to drill and produce such other wells as the Secretary of the Interior may require to insure diligence in the development and operation of the property.

(d) Rentals and royalties.—(1) To pay the rentals and royalties set out in the rental and royalty schedule attached hereto and made a part hereof.

(2) It is expressly agreed that the Secretary of the Interior may establish reasonable minimum values for purposes of computing royalty on any or all oil, gas, natural gasoline, and other products obtained from gas; due consideration being given to the highest price paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices and to other relevant matters and, whenever appropriate, after notice and opportunity to be heard.

(3) When paid in value, such royalties on production shall be due and payable monthly on the last day of the calendar month next following the calendar month in which produced. When paid in amount of production, such royalty products shall be delivered in merchantable condition on the premises where produced without cost to lessor, unless otherwise agreed to by the parties hereto, at such times and in such tanks provided by the lessee as reasonably may be required by the lessor, but in no case shall the lessee be required to hold such royalty oil or other products in storage beyond the last day of the calendar month next following the calendar month in which produced. The lessee shall not be responsible or held liable for the loss or destruction of royalty oil or other products in storage from causes over which he has no control.

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(4) Royalties shall be subject to reduction on the entire leasehold or on any portion thereof segregated for royalty purposes if the Secretary of the Interior finds that the lease cannot be successfully operated upon the royalties fixed herein, or that such action will encourage the greatest ultimate recovery of oil or gas or promote conservation.

(e) Contracts for disposal of products.—Not to sell or otherwise dispose of oil, gas, natural gasoline, and other products of the lease except in accordance with a contract or other arrangement first approved by the Director of the Geological Survey or his representative, such approval to be subject to review by the Secretary of the Interior but to be effective unless and until revoked by the Secretary or the approving officer, and to file with such officer all contracts or full information as to other arrangements for such sales.



4-213  
(December 1949)

(f) Statements, plans, and reports.—At such times and in such form as the lessor may prescribe, to furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amounts used for production purposes or unavoidably lost; a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs.

(g) Well records.—To keep a daily drilling record, a log, and complete information on all well surveys and tests in form acceptable to or prescribed by the lessor of all wells drilled on the leased lands, and an acceptable record of all subsurface investigations affecting said lands, and to furnish them, or copies thereof, to the lessor when required.

(h) Inspection.—To keep open at all reasonable times for the inspection of any duly authorized officer of the Department, the leased premises and all wells, improvements, machinery, and fixtures thereon and all books, accounts, maps, and records relative to operations and surveys or investigations on the leased lands or under the lease.

(i) Payments.—Unless otherwise directed by the Secretary of the Interior, to make rental, royalty, or other payments to the lessor, to the order of the Treasurer of the United States, such payments to be tendered to the Manager of the district land office in the district in which the lands are located or to the Director of the Bureau of Land Management if there is no district land office in the State in which the lands are located.

(j) Diligence—Prevention of waste—Health and safety of workmen.—To exercise reasonable diligence in drilling and producing the wells herein provided for unless consent to suspend operations temporarily is granted by the lessor; to carry on all operations in accordance with approved methods and practice as provided in the operating regulations, having due regard for the prevention of waste of oil or gas or damage to deposits or formations containing oil, gas, or water or to coal measures or other mineral deposits, for conservation of gas energy, for the preservation and conservation of the property for future productive operations, and for the health and safety of workmen and employees; to plug properly and effectively all wells before abandoning the same; to carry out at expense of the lessee all reasonable orders of the lessor relative to the matters in this paragraph, and that on failure of the lessee so to do, the lessor shall have the right to enter on the property and to accomplish the purpose of such orders at the lessee's cost. Provided, that the lessee shall not be held responsible for delays or casualties occasioned by causes beyond lessee's control.

(k) Taxes and wages—Freedom of purchase.—To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, oil, and gas produced from the lands hereunder, or other rights, property, or assets of the lessee; to accord all workmen and employees complete freedom of purchase, and to pay all wages due workmen and employees at least twice each month in the lawful money of the United States.

(l) Nondiscrimination.—Not to discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and to require an identical provision to be included in all subcontracts.

(m) Assignment of oil and gas lease or interest therein.—To file within 90 days from the date of final execution any instrument of transfer made of this lease, or any interest therein, including assignments of record title, working or royalty interests, operating agreements and subleases for approval, such instrument to take effect upon its final approval by the Director, Bureau of Land Management, as of the first day of the lease month following the date of filing in the proper land office.

(n) Pipe lines to purchase or convey at reasonable rates and without discrimination.—If owner, or operator, or owner of a controlling interest in any pipe line or of any company operating the same which may be operated accessible to the oil or gas derived from lands under this lease, to accept and convey and, if a purchaser of such products, to purchase at reasonable rates and without discrimination the oil or gas of the Government or of any citizen or company not the owner of any pipe line.



operating a lease or purchasing or selling oil, gas, natural gasoline, or other products under the provisions of the act.

(c) Reserved deposits.—To comply with all statutory requirements and regulations thereunder, if the lands embraced herein have been or shall hereafter be disposed of under the laws reserving to the United States the deposits of oil and gas therein, subject to such conditions as are or may hereafter be provided by the laws reserving such oil or gas.

(p) Reserved or segregated lands.—If any of the land included in this lease is embraced in a reservation or segregated for any particular purpose, to conduct operations thereunder in conformity with such requirements as may be made by the Director, Bureau of Land Management, for the protection and use of the land for the purpose for which it was reserved or segregated, so far as may be consistent with the use of the land for the purpose of this lease, which latter shall be regarded as the dominant use unless otherwise provided herein or separately stipulated.

(q) Overriding royalties.—To limit the obligation to pay overriding royalties or payments out of production in excess of 5 percent to periods during which the average production per well per day is more than 15 barrels on an entire leasehold or any part of the area thereof or any zone segregated for the computation of royalties.

(r) Deliver premises in cases of forfeiture.—To deliver up the premises leased, with all permanent improvements thereon, in good order and condition in case of forfeiture of this lease; but this shall not be construed to prevent the removal, alteration, or renewal of equipment and improvements in the ordinary course of operations.

### SEC. 3. The lessor expressly reserves:

(a) Rights reserved—Easements and rights-of-way.—The right to permit for joint or several use easements or rights-of-way, including easements in tunnels upon, through, or in the lands leased, occupied, or used as may be necessary or appropriate to the working of the same or of other lands containing the deposits described in the act, and the treatment and shipment of products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) Disposition of surface.—The right to lease, sell, or otherwise dispose of the surface of any of the lands embraced within this lease which are owned by the United States under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the oil and gas therein.

(c) Monopoly and fair prices.—Full power and authority to promulgate and enforce all orders necessary to insure the sale of the production of the leased lands to the United States and to the public at reasonable prices, to protect the interests of the United States, to prevent monopoly, and to safeguard the public welfare.

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(d) Helium.—Pursuant to section 1 of the act, and section 1 of the act of March 3, 1927 (44 Stat. 1387), as amended, the ownership and the right to extract helium from all gas produced under this lease, subject to such rules and regulations as shall be prescribed by the Secretary of the Interior. In case the lessor elects to take the helium the lessee shall deliver all gas containing same, or portion thereof desired, to the lessor at any point on the leased premises in the manner required by the lessor, for the extraction of the helium in such plant or reduction works for that purpose as the lessor may provide, whereupon the residue shall be returned to the lessee with no substantial delay in the delivery of gas produced from the well to the purchaser thereof. The lessee shall not suffer a diminution of value of the gas from which the helium has been extracted, or loss otherwise, for which he is not reasonably compensated, save for the value of the helium extracted. The lessor further reserves the right to erect, maintain, and operate any and all reduction works and other equipment necessary for the extraction of helium on the premises leased.

(e) Taking of royalties.—All rights pursuant to section 36 of the act, to take royalties in amount or in value of production.

34-57723-6



44213  
(December 1949)

(f) Casing.—All rights pursuant to section 40 of the act to purchase casing and lease or operate valuable water wells.

(g) Fissionable materials.—Pursuant to the provisions of the act of August 1, 1946 (Public Law 595, 79th Congress) all uranium, thorium, or other material which has been or may hereafter be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, together with the right of the United States through its authorized agents or representatives at any time to enter upon the land and prospect for, mine and remove the same, making just compensation for any damage or injury occasioned thereby.

SEC. 4. Drilling and producing restrictions.—It is covenanted and agreed that the rate of prospecting and developing and the quantity and rate of production from the lands covered by this lease shall be subject to control in the public interest by the Secretary of the Interior, and in the exercise of his judgment the Secretary may take into consideration, among other things, Federal laws, State laws, and regulations issued thereunder, or lawful agreements among operators regulating either drilling or production, or both. After unitization, the Secretary of the Interior, or any person, committee, or State or Federal officer or agency so authorized in the unit plan, may alter or modify from time to time, the rate of prospecting and development and the quantity and rate of production from the lands covered by this lease.

SEC. 5. Surrender and termination of lease.—The lessee may surrender this lease or any legal subdivision thereof by filing in the proper land office a written relinquishment, in triplicate, which shall be effective as of the date of filing subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to place all wells on the land to be relinquished in condition for suspension or abandonment in accordance with the regulations and the terms of the lease, to be accompanied by a statement that all wages and moneys due and payable to the workmen employed on the land relinquished have been paid.

SEC. 6. Purchase of materials, etc., on termination of lease.—Upon the expiration of this lease, or the earlier termination thereof pursuant to the last preceding section, the lessor or another lessee may, if the lessor shall so elect within 3 months from the termination of the lease, purchase all materials, tools, machinery, appliances, structures, and equipment placed in or upon the land by the lessee, and in use thereon as a necessary or useful part of an operating or producing plant, on the payment to the lessee of such sum as may be fixed as a reasonable price therefor by a board of three appraisers, one of whom shall be chosen by the lessor, one by the lessee, and the other by the two so chosen; pending such election all equipment shall remain in normal position. If the lessor, or another lessee, shall not within 3 months elect to purchase all or any part of such materials, tools, machinery, appliances, structures, and equipment, the lessee shall have the right at any time, within a period of 90 days thereafter to remove from the premises all the material, tools, machinery, appliances, structures, and equipment which the lessor shall not have elected to purchase, save and except casing in wells and other equipment or apparatus necessary for the preservation of the well or wells. Any materials, tools, machinery, appliances, structures, and equipment, including casing in or out of wells on the leased lands, shall become the property of the lessor, on expiration of the period of 90 days above referred to or such extension thereof as may be granted on account of adverse climatic conditions throughout said period.

SEC. 7. Proceedings in case of default.—If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or make default in the performance or observance of any of the terms, covenants, and stipulations hereof and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lease may be canceled by the Secretary of the Interior in accordance with section 31 of the act, as amended, and all materials, tools, machinery, appliances, structures, equipment, and wells shall thereupon become the property of the lessor, except that if said lease covers lands known to contain valuable deposits of oil or gas, the lease may be canceled only by judicial proceedings in the manner provided in section 31 of the act; but this provision shall not be construed to prevent the exercise by the lessor of any legal or equitable remedy which the lessor might otherwise have. A waiver of any particular

cause of forfeiture shall not prevent the cancellation and forfeiture of this lease for any other cause of forfeiture, or for the same cause occurring at any other time.

SEC. 8. Heirs and successors in interest.—It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

SEC. 9. Unlawful interest.—It is also further agreed that no Member of, or Delegate to, Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and that no officer, agent, or employee of the Department of the Interior, shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, and sections 431, 432, and 433, title 18, United States Code, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

IN WITNESS WHEREOF:

THE UNITED STATES OF AMERICA.

For the Director, Bureau of Land Management

By *R. A. Lang* Manager

*P. E. Spencer Anterior N.M.*

*Mabel K. Loser Anterior N.M.*

Witnesses to signature of lessee.

*Leola B. Shaw*

L63266.

U. S. GOVERNMENT PRINTING OFFICE 16-58730-4

USE OF MAY 11 2022 AM 8:55



Schedule "A"  
RENTALS AND ROYALTIES

Rentals--To pay the lesser in advance on the first day of the month in which the lease issues a rental at the following rates:

- (a) If the lands are wholly outside the known geologic structure of a producing oil or gas field:
  - (1) For the first lease year, a rental of 50 cents per acre.
  - (2) For the second and third lease years, no rental.
  - (3) For the fourth and fifth years, 25 cents per acre.
  - (4) For the sixth and each succeeding year, 50 cents per acre.
- (b) On leases wholly or partly within the geologic structure of a producing oil or gas field:
  - (1) Beginning with the first lease year after 30 days' notice that all or part of the land is included in such a structure and for each year thereafter, prior to a discovery of oil or gas on the lands herein, \$1 per acre.
  - (2) On the lands committed to an approved cooperative or unit plan which includes a well capable of producing oil or gas and contains a general provision for allocation of production, for the lands not within the participating area an annual rental of 50 cents per acre for the first and each succeeding lease year following discovery.

Minimum royalty--To pay the lesser in lieu of rental at the expiration of each lease year after discovery a minimum royalty of \$1 per acre or, if there is production, the difference between the actual royalty paid during the year and the prescribed minimum royalty of \$1 per acre, provided that on unitized leases, the minimum royalty shall be payable only on the participating acreage.

Royalty on production--To pay the lesser 12½ percent royalty on the production removed or sold from the leased lands.

The average production per well per day for oil and for gas shall be determined pursuant to 30 CFR, Part 221, "Oil and Gas Operating Regulations."

In determining the amount or value of gas and liquid products produced, the amount or value shall be net after an allowance for the cost of manufacture. The allowance for cost of manufacture may exceed two-thirds of the amount or value of any product only on approval by the Secretary of the Interior.

35759

STATE OF NEW MEXICO  
COUNTY OF LEA  
FILED FOR RECORD

of the

1951

at 10<sup>35</sup> o'clock P. M. and recorded in Book

94 page 465

County Clerk.

By

43x

Deputy.

JOHN E. COCHRAN, JR.

JOHN E. COCHRAN, JR.  
ATTORNEY-AT-LAW  
ARTEZIA, NEW MEXICO

USE OF MAY 11 2022 08:55



**STATE OF NEW MEXICO**  
**OFFICE OF THE STATE ENGINEER**  
**ROSWELL**

**Mike A. Hamman, P.E.**  
State Engineer

**DISTRICT II**  
1901 West Second St.  
Roswell, New Mexico 88201  
Phone: (575) 622-6521  
Fax: (575) 623-8559

May 17, 2022

Devon Energy  
6488 7 Rivers Highway  
Artesia, NM 88210

RE: Well Plugging Plan of Operations for **C-4618-POD1**

Greetings:

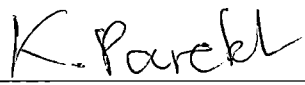
Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced project. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer.

- (1) Plugging operations shall also be conducted in accordance with NMED, NMOCD, or other State or Federal agencies having oversight for the above described project.
- (2) In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor is required. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30, 19.27.4.31, 19.27.4.33 NMAC, and all specific conditions of approval. While conducting the well drilling activities, the Well Driller shall maintain a copy of the approved permit, conditions and Well Plugging Plan of Operations on-site and available for inspection upon request.
- (3) Well that encounters water - Maximum 6 gallons water per 94 lb. sack Portland Cement
- (4) Dry hole – Drill cuttings used to ten feet of land surface. Hydrated bentonite – Fresh water to be added above water column at rate of 5 gallons per 50-lb sack/bucket.
- (5) Any deviation from this plan must obtain an approved variance from this office prior to implementation.

Well Plugging Plan of Operations form (WD-08) has been updated. Current form can be found on the OSE website at the following link <https://www.ose.state.nm.us/Statewide/wdForms.php>.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

  
\_\_\_\_\_  
Kashyap Parekh  
Water Resources Manager I





## WELL PLUGGING PLAN OF OPERATIONS



**NOTE:** A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

**Alert!** Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology [geoinfo.nmt.edu/resources/water/egms/](http://geoinfo.nmt.edu/resources/water/egms/) if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email [nmbg-waterlevels@nmt.edu](mailto:nmbg-waterlevels@nmt.edu), prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

**I. FILING FEE:** There is no filing fee for this form.

**II. GENERAL / WELL OWNERSHIP:** ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: C- 6618 - (POD-1)

Name of well owner: Devon Energy

Mailing address: 6488 7 Rivers Hwy County: Eddy

City: Artesia State: NM Zip code: 88210

Phone number: 575-748-1838 E-mail: Dale.Woodall@dvn.com

### III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Jackie D. Atkins (Atkins Engineering Associates)

New Mexico Well Driller License No.: 1248 Expiration Date: 04/30/2023

**IV. WELL INFORMATION:** ☐ Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 7 min, 25.94 sec  
Longitude: 103 deg, 43 min, 0.69 sec, NAD 83

2) Reason(s) for plugging well(s):

Soil boring to determine groundwater level

USE DJJ MAY 11 2022 04:52

3) Was well used for any type of monitoring program? NO If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? N/A If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: Unknown feet below land surface / feet above land surface (circle one)

6) Depth of the well: 55 feet

WD-08 Well Plugging Plan  
Version: July 31, 2019  
Page 1 of 5



- 7) Inside diameter of innermost casing: 1" or 2" inches.
- 8) Casing material: Temporary PVC SCH 40
- 9) The well was constructed with:  
☐ an open-hole production interval, state the open interval: \_\_\_\_\_  
☐ a well screen or perforated pipe, state the screened interval(s): \_\_\_\_\_
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
- 11) Was the well built with surface casing? NO If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? \_\_\_\_\_ If yes, please describe:  
 \_\_\_\_\_
- 12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

**V. DESCRIPTION OF PLANNED WELL PLUGGING:** ☐ If plugging method differs between multiple wells on same site, a separate form must be completed for each method.

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  
 \_\_\_\_\_  
 The temporary 1" or 2" well material will be removed. Tremied from bottom to land Neat Cement in lifts
- 2) Will well head be cut-off below land surface after plugging? N/A

**VI. PLUGGING AND SEALING MATERIALS:**

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: 87
- 4) Type of Cement proposed: Type III Neat Cement
- 5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: \_\_\_\_\_ batch-mixed and delivered to the site  
X mixed on site

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- 7) Grout additives requested, and percent by dry weight relative to cement:

N/A

- 8) Additional notes and calculations:

Site ID:23

Location Name: Cotton Draw Unit 507H

**VII. ADDITIONAL INFORMATION:** List additional information below, or on separate sheet(s):

The temporary well material will be removed. If no water is encountered then drill cuttings will be used to (10) ten feet of land surface and plugged using hydrated bentonite. If ground water is encountered the boring will be plugged tremie from bottom to a slurry of Portland TYPE I/II Neat cement in lifts. A 6.5" borehole will be plugged.

**VIII. SIGNATURE:**

I, Dale Woodall (Devon Energy), say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Dale Woodall

04/25/2022

Signature of Applicant

Date

**IX. ACTION OF THE STATE ENGINEER:**

This Well Plugging Plan of Operations is:

OSE DTI MAY 11 2022 AM 8:52

- ☒ Approved subject to the attached conditions.  
☐ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this

19<sup>th</sup>

day of

May, 2022

Mike A. Hamman  
 John R. D'Antonio Jr. P.E., New Mexico State Engineer

By:

K. Parekh  
KASHYAP PAREKH  
W.R.M. I



WD-08 Well Plugging Plan  
 Version: July 31, 2019  
 Page 2 of 5

**TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.**

	<b>Interval 1 – deepest</b>	<b>Interval 2</b>	<b>Interval 3 – most shallow</b>
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	N/A	N/A	N/A
Bottom of proposed interval of grout placement (ft bgl)	N/A	N/A	55
Theoretical volume of grout required per interval (gallons)	N/A	N/A	87
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	N/A	N/A	<6.0
Mixed on-site or batch-mixed and delivered?	N/A	N/A	On-Site
Grout additive 1 requested	N/A	N/A	N/A
Additive 1 percent by dry weight relative to cement	N/A	N/A	N/A
Grout additive 2 requested	N/A	N/A	N/A
Additive 2 percent by dry weight relative to cement	N/A	N/A	N/A

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**TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	N/A	N/A	0
Bottom of proposed sealant or grout placement (ft bgl)	N/A	N/A	10
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	15
Proposed abandonment sealant (manufacturer and trade name)	N/A	N/A	Barrod Hole Plug

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# PLUGGING RECORD



**NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4618  
 Well owner: Devon Energy Phone No.: 575-748-1838  
 Mailing address: 6488 7 Rivers Hwy  
 City: Artesia State: New Mexico Zip code: 88210

## II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)
- 2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Cameron Pruitt
- 4) Date well plugging began: 6/6/2022 Date well plugging concluded: 6/6/2022
- 5) GPS Well Location: Latitude: 32 deg, 7 min, 25.94 sec  
 Longitude: 103 deg, 43 min, 0.69 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (hgl),  
 by the following manner: water level probe
- 7) Static water level measured at initiation of plugging: n/a ft hgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 5/19/2022
- 9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

USE OF JUN 10 2022 AM 8:23

- For each interval plugged, describe within the following columns:**



## WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

[illegible]

FOR USE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 01/28/2022)

FILE NO.	C-4618	POD NO.	1	TRN NO.	72595
LOCATION	26S. 32E 18 343	WELL TAG ID NO.	—		PAGE 1 OF 2



#### 4. HYDROGEOLOGIC LOG OF WELL

#### 5. TEST: BIG SUPERVISION

#### SIGNATURE

FOR USE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 01/28/2022)	
FILE NO. C-4618	PROD NO. 1	TRN NO. 72595	
LOCATION 255.32E-18 343	WELL TAG ID NO. =		PAGE 2 OF 2



CDU 506 H

Low Karst Area

Legend

- High
- Low
- Medium

Devon Cotton Draw Unit 18 CTB

Sample Point 5  
Sample Point 5

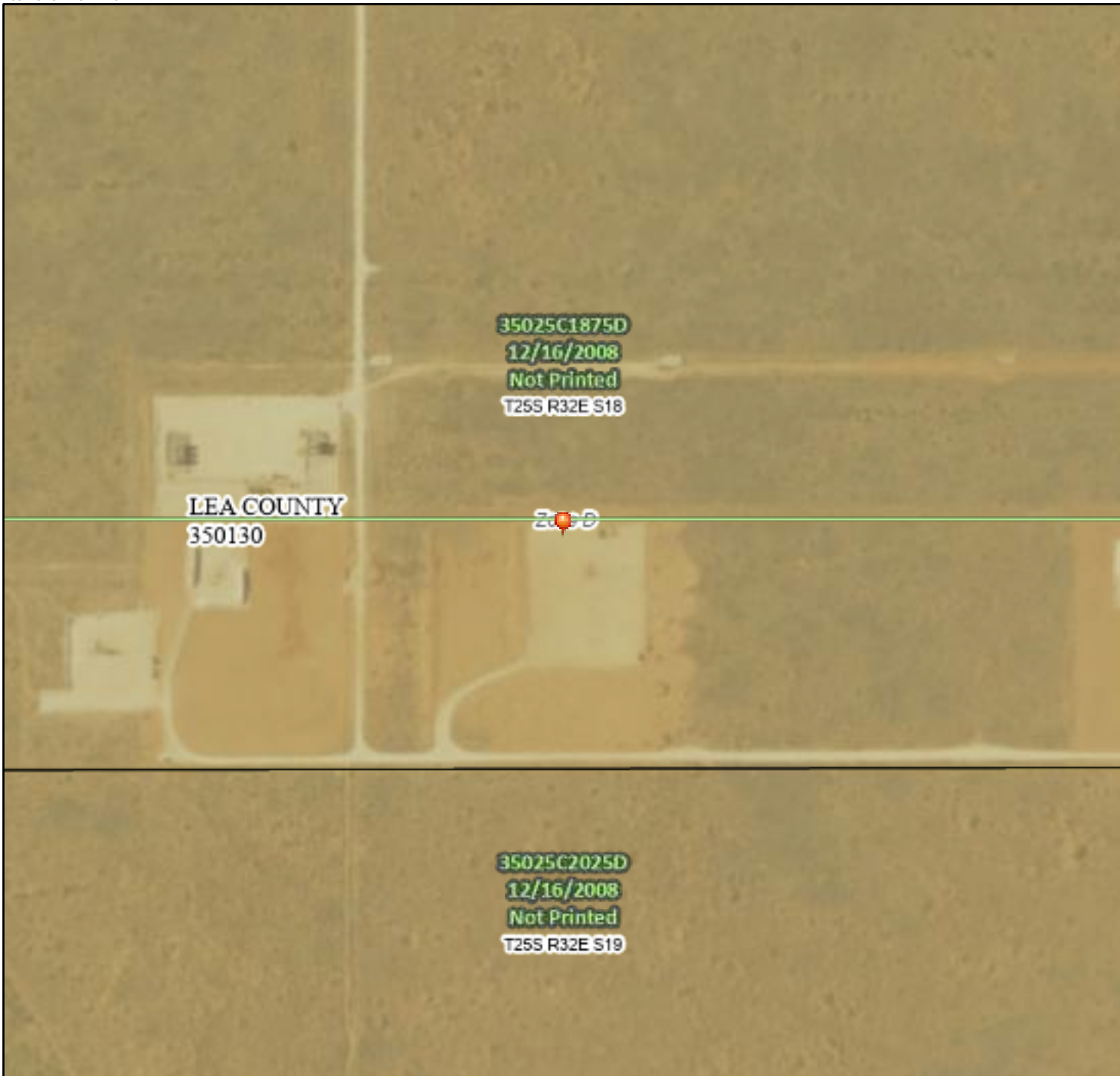
Untitled Placemark

Devon CDU 506H

# National Flood Hazard Layer FIRMette



103°43'19"W 32°7'45"N



## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		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 <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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 8/24/2022 at 12:47 PM 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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 27, 2020

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

RE: Devon Cotton Draw 506H

OrderNo.: 2004888

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 16 sample(s) on 4/21/2020 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-1 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 9:00:00 AM

Lab ID: 2004888-001

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	4/22/2020 11:30:56 AM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 4:53:18 AM	51988
Surr: BFB	97.2	70-130		%Rec	1	4/24/2020 4:53:18 AM	51988
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/22/2020 5:13:05 PM	51992
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/22/2020 5:13:05 PM	51992
Surr: DNOP	114	55.1-146		%Rec	1	4/22/2020 5:13:05 PM	51992
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 4:53:18 AM	51988
Toluene	ND	0.047		mg/Kg	1	4/24/2020 4:53:18 AM	51988
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 4:53:18 AM	51988
Xylenes, Total	ND	0.095		mg/Kg	1	4/24/2020 4:53:18 AM	51988
Surr: 1,2-Dichloroethane-d4	86.8	70-130		%Rec	1	4/24/2020 4:53:18 AM	51988
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/24/2020 4:53:18 AM	51988
Surr: Dibromofluoromethane	94.0	70-130		%Rec	1	4/24/2020 4:53:18 AM	51988
Surr: Toluene-d8	95.9	70-130		%Rec	1	4/24/2020 4:53:18 AM	51988

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 1 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-1 2FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 9:25:00 AM

Lab ID: 2004888-002

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	320	60		mg/Kg	20	4/22/2020 12:32:41 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2020 5:21:52 AM	51988
Surr: BFB	97.9	70-130		%Rec	1	4/24/2020 5:21:52 AM	51988
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2020 5:37:46 PM	51992
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2020 5:37:46 PM	51992
Surr: DNOP	110	55.1-146		%Rec	1	4/22/2020 5:37:46 PM	51992
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/24/2020 5:21:52 AM	51988
Toluene	ND	0.050		mg/Kg	1	4/24/2020 5:21:52 AM	51988
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2020 5:21:52 AM	51988
Xylenes, Total	ND	0.099		mg/Kg	1	4/24/2020 5:21:52 AM	51988
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	4/24/2020 5:21:52 AM	51988
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/24/2020 5:21:52 AM	51988
Surr: Dibromofluoromethane	94.0	70-130		%Rec	1	4/24/2020 5:21:52 AM	51988
Surr: Toluene-d8	94.8	70-130		%Rec	1	4/24/2020 5:21:52 AM	51988

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 2 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-2 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 9:40:00 AM

Lab ID: 2004888-003

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	4/22/2020 12:45:02 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/23/2020 5:08:54 AM	51993
Surr: BFB	96.6	70-130		%Rec	1	4/23/2020 5:08:54 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	4/22/2020 2:28:10 PM	51995
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/22/2020 2:28:10 PM	51995
Surr: DNOP	98.0	55.1-146		%Rec	1	4/22/2020 2:28:10 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.023		mg/Kg	1	4/23/2020 5:08:54 AM	51993
Toluene	ND	0.046		mg/Kg	1	4/23/2020 5:08:54 AM	51993
Ethylbenzene	ND	0.046		mg/Kg	1	4/23/2020 5:08:54 AM	51993
Xylenes, Total	ND	0.092		mg/Kg	1	4/23/2020 5:08:54 AM	51993
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%Rec	1	4/23/2020 5:08:54 AM	51993
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/23/2020 5:08:54 AM	51993
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	4/23/2020 5:08:54 AM	51993
Surr: Toluene-d8	93.0	70-130		%Rec	1	4/23/2020 5:08:54 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 3 of 23



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-2 3FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 10:20:00 AM

Lab ID: 2004888-004

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	350	60		mg/Kg	20	4/22/2020 12:57:23 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/23/2020 6:34:38 AM	51993
Surr: BFB	99.8	70-130		%Rec	1	4/23/2020 6:34:38 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/22/2020 2:52:10 PM	51995
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/22/2020 2:52:10 PM	51995
Surr: DNOP	94.6	55.1-146		%Rec	1	4/22/2020 2:52:10 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.023		mg/Kg	1	4/23/2020 6:34:38 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/23/2020 6:34:38 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/23/2020 6:34:38 AM	51993
Xylenes, Total	ND	0.093		mg/Kg	1	4/23/2020 6:34:38 AM	51993
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%Rec	1	4/23/2020 6:34:38 AM	51993
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/23/2020 6:34:38 AM	51993
Surr: Dibromofluoromethane	98.1	70-130		%Rec	1	4/23/2020 6:34:38 AM	51993
Surr: Toluene-d8	97.7	70-130		%Rec	1	4/23/2020 6:34:38 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 4 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-3 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 10:25:00 AM

Lab ID: 2004888-005

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	4/22/2020 1:09:44 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/24/2020 5:50:24 AM	51993
Surr: BFB	97.6	70-130		%Rec	1	4/24/2020 5:50:24 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/22/2020 3:16:21 PM	51995
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/22/2020 3:16:21 PM	51995
Surr: DNOP	115	55.1-146		%Rec	1	4/22/2020 3:16:21 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 5:50:24 AM	51993
Toluene	ND	0.049		mg/Kg	1	4/24/2020 5:50:24 AM	51993
Ethylbenzene	ND	0.049		mg/Kg	1	4/24/2020 5:50:24 AM	51993
Xylenes, Total	ND	0.098		mg/Kg	1	4/24/2020 5:50:24 AM	51993
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	4/24/2020 5:50:24 AM	51993
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	4/24/2020 5:50:24 AM	51993
Surr: Dibromofluoromethane	94.9	70-130		%Rec	1	4/24/2020 5:50:24 AM	51993
Surr: Toluene-d8	98.3	70-130		%Rec	1	4/24/2020 5:50:24 AM	51993

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		

Page 5 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-3 3FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:00:00 AM

Lab ID: 2004888-006

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	250	59		mg/Kg	20	4/22/2020 1:22:05 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2020 6:18:51 AM	51993
Surr: BFB	99.8	70-130		%Rec	1	4/24/2020 6:18:51 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2020 3:40:28 PM	51995
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2020 3:40:28 PM	51995
Surr: DNOP	93.6	55.1-146		%Rec	1	4/22/2020 3:40:28 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	4/24/2020 6:18:51 AM	51993
Toluene	ND	0.050		mg/Kg	1	4/24/2020 6:18:51 AM	51993
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2020 6:18:51 AM	51993
Xylenes, Total	ND	0.099		mg/Kg	1	4/24/2020 6:18:51 AM	51993
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	4/24/2020 6:18:51 AM	51993
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/24/2020 6:18:51 AM	51993
Surr: Dibromofluoromethane	94.8	70-130		%Rec	1	4/24/2020 6:18:51 AM	51993
Surr: Toluene-d8	98.8	70-130		%Rec	1	4/24/2020 6:18:51 AM	51993

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		

Page 6 of 23



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-4 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:05:00 AM

Lab ID: 2004888-007

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	660	60		mg/Kg	20	4/22/2020 1:34:25 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/24/2020 6:47:22 AM	51993
Surr: BFB	96.8	70-130		%Rec	1	4/24/2020 6:47:22 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/22/2020 4:04:37 PM	51995
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2020 4:04:37 PM	51995
Surr: DNOP	128	55.1-146		%Rec	1	4/22/2020 4:04:37 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 6:47:22 AM	51993
Toluene	ND	0.048		mg/Kg	1	4/24/2020 6:47:22 AM	51993
Ethylbenzene	ND	0.048		mg/Kg	1	4/24/2020 6:47:22 AM	51993
Xylenes, Total	ND	0.095		mg/Kg	1	4/24/2020 6:47:22 AM	51993
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	4/24/2020 6:47:22 AM	51993
Surr: 4-Bromofluorobenzene	94.3	70-130		%Rec	1	4/24/2020 6:47:22 AM	51993
Surr: Dibromofluoromethane	93.2	70-130		%Rec	1	4/24/2020 6:47:22 AM	51993
Surr: Toluene-d8	96.4	70-130		%Rec	1	4/24/2020 6:47:22 AM	51993

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 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-4 2FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:30:00 AM

Lab ID: 2004888-008

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	550	60		mg/Kg	20	4/22/2020 1:46:45 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/24/2020 7:15:55 AM	51993
Surr: BFB	98.4	70-130		%Rec	1	4/24/2020 7:15:55 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2020 4:28:47 PM	51995
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2020 4:28:47 PM	51995
Surr: DNOP	130	55.1-146		%Rec	1	4/22/2020 4:28:47 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 7:15:55 AM	51993
Toluene	ND	0.048		mg/Kg	1	4/24/2020 7:15:55 AM	51993
Ethylbenzene	ND	0.048		mg/Kg	1	4/24/2020 7:15:55 AM	51993
Xylenes, Total	ND	0.096		mg/Kg	1	4/24/2020 7:15:55 AM	51993
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	4/24/2020 7:15:55 AM	51993
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/24/2020 7:15:55 AM	51993
Surr: Dibromofluoromethane	95.8	70-130		%Rec	1	4/24/2020 7:15:55 AM	51993
Surr: Toluene-d8	96.1	70-130		%Rec	1	4/24/2020 7:15:55 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 8 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-5 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:35:00 AM

Lab ID: 2004888-009

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	670	60		mg/Kg	20	4/22/2020 1:59:05 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 7:44:31 AM	51993
Surr: BFB	96.0	70-130		%Rec	1	4/24/2020 7:44:31 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/22/2020 4:52:56 PM	51995
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/22/2020 4:52:56 PM	51995
Surr: DNOP	125	55.1-146		%Rec	1	4/22/2020 4:52:56 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/24/2020 7:44:31 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/24/2020 7:44:31 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 7:44:31 AM	51993
Xylenes, Total	ND	0.094		mg/Kg	1	4/24/2020 7:44:31 AM	51993
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%Rec	1	4/24/2020 7:44:31 AM	51993
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	4/24/2020 7:44:31 AM	51993
Surr: Dibromofluoromethane	92.5	70-130		%Rec	1	4/24/2020 7:44:31 AM	51993
Surr: Toluene-d8	97.1	70-130		%Rec	1	4/24/2020 7:44:31 AM	51993

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		

Page 9 of 23



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-5 1FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:45:00 AM

Lab ID: 2004888-010

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	840	60		mg/Kg	20	4/22/2020 2:11:26 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 8:13:07 AM	51993
Surr: BFB	97.5	70-130		%Rec	1	4/24/2020 8:13:07 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/22/2020 5:17:03 PM	51995
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/22/2020 5:17:03 PM	51995
Surr: DNOP	133	55.1-146		%Rec	1	4/22/2020 5:17:03 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 8:13:07 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/24/2020 8:13:07 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 8:13:07 AM	51993
Xylenes, Total	ND	0.094		mg/Kg	1	4/24/2020 8:13:07 AM	51993
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%Rec	1	4/24/2020 8:13:07 AM	51993
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/24/2020 8:13:07 AM	51993
Surr: Dibromofluoromethane	96.4	70-130		%Rec	1	4/24/2020 8:13:07 AM	51993
Surr: Toluene-d8	96.2	70-130		%Rec	1	4/24/2020 8:13:07 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 10 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-6 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 11:50:00 AM

Lab ID: 2004888-011

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	1500	59		mg/Kg	20	4/22/2020 2:23:47 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 8:41:51 AM	51993
Surr: BFB	97.0	70-130		%Rec	1	4/24/2020 8:41:51 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/22/2020 5:41:18 PM	51995
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/22/2020 5:41:18 PM	51995
Surr: DNOP	114	55.1-146		%Rec	1	4/22/2020 5:41:18 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 8:41:51 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/24/2020 8:41:51 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 8:41:51 AM	51993
Xylenes, Total	ND	0.095		mg/Kg	1	4/24/2020 8:41:51 AM	51993
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	4/24/2020 8:41:51 AM	51993
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	4/24/2020 8:41:51 AM	51993
Surr: Dibromofluoromethane	95.4	70-130		%Rec	1	4/24/2020 8:41:51 AM	51993
Surr: Toluene-d8	95.2	70-130		%Rec	1	4/24/2020 8:41:51 AM	51993

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		

Page 11 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-6 1FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 12:00:00 PM

Lab ID: 2004888-012

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	1000	59		mg/Kg	20	4/22/2020 3:00:50 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 9:10:22 AM	51993
Surr: BFB	98.7	70-130		%Rec	1	4/24/2020 9:10:22 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/22/2020 6:05:26 PM	51995
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/22/2020 6:05:26 PM	51995
Surr: DNOP	132	55.1-146		%Rec	1	4/22/2020 6:05:26 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/24/2020 9:10:22 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/24/2020 9:10:22 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 9:10:22 AM	51993
Xylenes, Total	ND	0.094		mg/Kg	1	4/24/2020 9:10:22 AM	51993
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%Rec	1	4/24/2020 9:10:22 AM	51993
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/24/2020 9:10:22 AM	51993
Surr: Dibromofluoromethane	92.2	70-130		%Rec	1	4/24/2020 9:10:22 AM	51993
Surr: Toluene-d8	95.9	70-130		%Rec	1	4/24/2020 9:10:22 AM	51993

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		

Page 12 of 23



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-7 Surface

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 12:10:00 PM

Lab ID: 2004888-013

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	10000	600		mg/Kg	200	4/23/2020 10:11:45 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/24/2020 9:38:59 AM	51993
Surr: BFB	95.5	70-130		%Rec	1	4/24/2020 9:38:59 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/22/2020 6:29:54 PM	51995
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2020 6:29:54 PM	51995
Surr: DNOP	104	55.1-146		%Rec	1	4/22/2020 6:29:54 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	4/24/2020 9:38:59 AM	51993
Toluene	ND	0.047		mg/Kg	1	4/24/2020 9:38:59 AM	51993
Ethylbenzene	ND	0.047		mg/Kg	1	4/24/2020 9:38:59 AM	51993
Xylenes, Total	ND	0.094		mg/Kg	1	4/24/2020 9:38:59 AM	51993
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	1	4/24/2020 9:38:59 AM	51993
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	4/24/2020 9:38:59 AM	51993
Surr: Dibromofluoromethane	96.6	70-130		%Rec	1	4/24/2020 9:38:59 AM	51993
Surr: Toluene-d8	94.8	70-130		%Rec	1	4/24/2020 9:38:59 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 13 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-7 1FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 12:20:00 PM

Lab ID: 2004888-014

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	4/22/2020 3:25:31 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/24/2020 10:07:31 AM	51993
Surr: BFB	97.8	70-130		%Rec	1	4/24/2020 10:07:31 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/22/2020 6:54:09 PM	51995
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2020 6:54:09 PM	51995
Surr: DNOP	117	55.1-146		%Rec	1	4/22/2020 6:54:09 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	4/24/2020 10:07:31 AM	51993
Toluene	ND	0.046		mg/Kg	1	4/24/2020 10:07:31 AM	51993
Ethylbenzene	ND	0.046		mg/Kg	1	4/24/2020 10:07:31 AM	51993
Xylenes, Total	ND	0.092		mg/Kg	1	4/24/2020 10:07:31 AM	51993
Surr: 1,2-Dichloroethane-d4	88.3	70-130		%Rec	1	4/24/2020 10:07:31 AM	51993
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	4/24/2020 10:07:31 AM	51993
Surr: Dibromofluoromethane	94.7	70-130		%Rec	1	4/24/2020 10:07:31 AM	51993
Surr: Toluene-d8	96.7	70-130		%Rec	1	4/24/2020 10:07:31 AM	51993

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		

Page 14 of 23

## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-8 Sufrace

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 12:30:00 PM

Lab ID: 2004888-015

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	10000	600		mg/Kg	200	4/23/2020 10:24:09 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/24/2020 10:35:59 AM	51993
Surr: BFB	102	70-130		%Rec	1	4/24/2020 10:35:59 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2020 7:18:21 PM	51995
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2020 7:18:21 PM	51995
Surr: DNOP	98.8	55.1-146		%Rec	1	4/22/2020 7:18:21 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	4/24/2020 10:35:59 AM	51993
Toluene	ND	0.048		mg/Kg	1	4/24/2020 10:35:59 AM	51993
Ethylbenzene	ND	0.048		mg/Kg	1	4/24/2020 10:35:59 AM	51993
Xylenes, Total	ND	0.097		mg/Kg	1	4/24/2020 10:35:59 AM	51993
Surr: 1,2-Dichloroethane-d4	88.3	70-130		%Rec	1	4/24/2020 10:35:59 AM	51993
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/24/2020 10:35:59 AM	51993
Surr: Dibromofluoromethane	93.1	70-130		%Rec	1	4/24/2020 10:35:59 AM	51993
Surr: Toluene-d8	99.3	70-130		%Rec	1	4/24/2020 10:35:59 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 15 of 23



## Analytical Report

Lab Order 2004888

Date Reported: 4/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-8 1FT

Project: Devon Cotton Draw 506H

Collection Date: 4/17/2020 12:48:00 PM

Lab ID: 2004888-016

Matrix: SOIL

Received Date: 4/21/2020 11:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	330	60		mg/Kg	20	4/22/2020 3:50:13 PM	52011
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/24/2020 11:04:42 AM	51993
Surr: BFB	97.3	70-130		%Rec	1	4/24/2020 11:04:42 AM	51993
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/22/2020 7:42:28 PM	51995
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2020 7:42:28 PM	51995
Surr: DNOP	87.9	55.1-146		%Rec	1	4/22/2020 7:42:28 PM	51995
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	4/24/2020 11:04:42 AM	51993
Toluene	ND	0.048		mg/Kg	1	4/24/2020 11:04:42 AM	51993
Ethylbenzene	ND	0.048		mg/Kg	1	4/24/2020 11:04:42 AM	51993
Xylenes, Total	ND	0.097		mg/Kg	1	4/24/2020 11:04:42 AM	51993
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	4/24/2020 11:04:42 AM	51993
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	4/24/2020 11:04:42 AM	51993
Surr: Dibromofluoromethane	93.6	70-130		%Rec	1	4/24/2020 11:04:42 AM	51993
Surr: Toluene-d8	97.1	70-130		%Rec	1	4/24/2020 11:04:42 AM	51993

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 16 of 23

QC SUMMARY REPORT  
Hall Environmental Analysis Laboratory, Inc.

WO#: 2004888  
27-Apr-20

Client: Safety & Environmental Solutions  
Project: Devon Cotton Draw 506H

Sample ID: MB-52011	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 52011	RunNo: 68324
Prep Date: 4/22/2020	Analysis Date: 4/22/2020	SeqNo: 2364875 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-52011	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 52011	RunNo: 68324
Prep Date: 4/22/2020	Analysis Date: 4/22/2020	SeqNo: 2364876 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 92.4 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#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>LCS-51992</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51992</b>	RunNo: <b>68326</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364062</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	70	130			
Surr: DNOP	5.3		5.000		106	55.1	146			

Sample ID: <b>MB-51992</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51992</b>	RunNo: <b>68326</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364067</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	55.1	146			

Sample ID: <b>LCS-51995</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51995</b>	RunNo: <b>68327</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364080</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	117	70	130			
Surr: DNOP	6.0		5.000		121	55.1	146			

Sample ID: <b>MB-51995</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51995</b>	RunNo: <b>68327</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364081</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		126	55.1	146			

**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#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>mb-51926</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51926</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/18/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364735</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.4	70	130			
Surr: Toluene-d8	0.49		0.5000		98.1	70	130			

Sample ID: <b>mb-51993</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51993</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2364736</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.5	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.6	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: <b>2004888-004ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>TT-2 3FT</b>	Batch ID: <b>51993</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2364758</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9634	0	96.6	70	130			
Toluene	1.1	0.048	0.9634	0	109	70	130			
Ethylbenzene	1.1	0.048	0.9634	0	115	70	130			
Xylenes, Total	3.3	0.096	2.890	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.4817		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4817		99.5	70	130			
Surr: Dibromofluoromethane	0.46		0.4817		96.2	70	130			
Surr: Toluene-d8	0.45		0.4817		93.0	70	130			

Sample ID: <b>2004888-004amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>TT-2 3FT</b>	Batch ID: <b>51993</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2364759</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9434	0	97.5	70	130	1.19	20	
Toluene	1.1	0.047	0.9434	0	112	70	130	0.238	20	

**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

Page 19 of 23

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>2004888-004amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>TT-2 3FT</b>	Batch ID: <b>51993</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2364759</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	1.1	0.047	0.9434	0	119	70	130	1.29	0	
Xylenes, Total	3.4	0.094	2.830	0	119	70	130	1.63	0	
Surr: 1,2-Dichloroethane-d4	0.43		0.4717		90.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.46		0.4717		98.5	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.4717		96.2	70	130	0	0	
Surr: Toluene-d8	0.45		0.4717		96.4	70	130	0	0	

Sample ID: <b>lcs-51926</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51926</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/18/2020</b>	Analysis Date: <b>4/22/2020</b>	SeqNo: <b>2364760</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.2	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.8	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID: <b>lcs-51993</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51993</b>	RunNo: <b>68351</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2364761</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.4	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Ethylbenzene	1.1	0.050	1.000	0	109	70	130			
Xylenes, Total	3.3	0.10	3.000	0	110	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.9	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: <b>mb-51988</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51988</b>	RunNo: <b>68389</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2366242</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

**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

Page 20 of 23

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>mb-51988</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51988</b>	RunNo: <b>68389</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2366242</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.7	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.4	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Sample ID: <b>ics-51988</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>51988</b>	RunNo: <b>68389</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2366246</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.8	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	112	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.9	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.9	70	130			
Surr: Toluene-d8	0.47		0.5000		94.1	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#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>mb-51926</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>51926</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/18/2020</b>	Analysis Date: <b>4/22/2020</b>				SeqNo: <b>2364764</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	480		500.0		97.0	70	130			

Sample ID: <b>mb-51993</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>51993</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>				SeqNo: <b>2364765</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		101	70	130			

Sample ID: <b>2004888-003ams</b>	SampType: <b>MS</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>TT-2 Surface</b>	Batch ID: <b>51993</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>				SeqNo: <b>2364784</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.6	22.81	0	101	70	130			
Surr: BFB	440		456.2		97.2	70	130			

Sample ID: <b>2004888-003amsd</b>	SampType: <b>MSD</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>TT-2 Surface</b>	Batch ID: <b>51993</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>				SeqNo: <b>2364785</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.58	0	103	70	130	9.36	20	
Surr: BFB	490		491.6		99.9	70	130	0	0	

Sample ID: <b>lcs-51926</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>51926</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/18/2020</b>	Analysis Date: <b>4/22/2020</b>				SeqNo: <b>2364787</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	490		500.0		98.8	70	130			

Sample ID: <b>lcs-51993</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>51993</b>				RunNo: <b>68351</b>					
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>				SeqNo: <b>2364788</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.6	70	130			
Surr: BFB	490		500.0		98.7	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

Page 22 of 23



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2004888

27-Apr-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

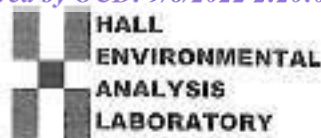
Sample ID: <b>mb-51988</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>51988</b>	RunNo: <b>68389</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2366336</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		99.2	70	130			

Sample ID: <b>lcs-51988</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>51988</b>	RunNo: <b>68389</b>								
Prep Date: <b>4/21/2020</b>	Analysis Date: <b>4/23/2020</b>	SeqNo: <b>2366337</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.4	70	130			
Surr: BFB	490		500.0		97.9	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



Hall Environmental Analysis Laboratory  
1961 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: 2004888

RcpID#: -1

Received By: Desirae Dominguez

4/21/2020 11:05

DP2

Completed By: Desirae Dominguez

4/21/2020 8:22:42 AM

DP2

Reviewed By: DAS 4/21/20

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:

(&lt;2 or &gt;12 unless noted)

Adjusted?

Checked by: JR 4/21/20

JR 4/21/20

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	2.4°C	Good	Not Present			

## Chain-of-Custody Record

Client: Safety & EnvironmentalSolutionMailing Address: 703 E. ClintonAlbuquerque NM 88240Phone #: 575-397-0510

Email or Fax:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ AZ Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time: 5 days

☐ Standard ☐ Rush

Project Name: Devon

Cotton Draw 50614

use # 20843210

Project #: Dev-20-029

Project Manager: Allen Bob

Sampler: Sam Jun

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temperature: 2, 3 to 1.5 to 2.4 (°C)

Container Type and #	Preservative Type	HEAL No.
1	Free	-001
1		-002
1		-003
1		-004
1		-005
1		-006
1		-007
1		-008
1		-009
1		-010
1		-011
1		-012

Received by: Sam Jun Date: 4/17/20 Time: 1800

Received by: Bill Devan Date: 4/21/20 Time: 11:05

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Analysis Request	Analysis Request
BTEX / MTBE / TMB's (8021)	<input checked="" type="checkbox"/>
TPH: 8016D (GRO / DRO / MRO)	<input checked="" type="checkbox"/>
8081 Pesticides/8082 PCBs	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	<u>Coliform</u>

Remarks:

Bill Devan



## Chain-of-Custody Record

Client: Safety & Environmental

Solution

Mailing Address: 703 E. ClintonAlbuquerque, NM 88240Phone #: 575-397-0570

email or Fax#: \_\_\_\_\_

QA/QC Package: \_\_\_\_\_

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other \_\_\_\_\_☐ EDD (Type) \_\_\_\_\_Turn-Around Time: 5 day☐ Standard ☐ RushProject Name: Devon 506 HWSP 20843210Project #: Dev-20-029Project Manager: Allen BobSampler: Sam JonesOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temperature: 2-3 to 1 = 2.4 (°C)

Container Type and #

Preservative Type

HEAL No.

Date

Time

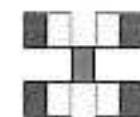
Sample Name

Date

Time

Relinquished by:

Relinquished by:

HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel: 505-345-3975 Fax: 505-345-4107

## Analysis Request

BTEX / MTBE / TMBs (8021)

TPH: 8015D (GRO / DRO / MRO)

8081 Pesticides/8082 PCBs

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, SO<sub>4</sub>

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

Remarks:

Bill Devon

Received by: Sam Jones Date: 4/17/20 Time: 1800Received by: Sam Jones Date: 4/17/20 Time: 11:05Received by: Sam Jones Date: 4/17/20 Time: 11:05Received by: Sam Jones Date: 4/17/20 Time: 11:05Received by: Sam Jones Date: 4/17/20 Time: 11:05Received by: Sam Jones Date: 4/17/20 Time: 11:05





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

June 29, 2020

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

RE: Devon Cotton Draw 506H

OrderNo.: 2006C80

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 12 sample(s) on 6/25/2020 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-5 2ft

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 9:30:00 AM

Lab ID: 2006C80-001

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	330	60		mg/Kg	20	6/28/2020 2:43:09 PM	53361
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/26/2020 4:33:36 PM	53300
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/26/2020 4:33:36 PM	53300
Surr: DNOP	154	55.1-146	S	%Rec	1	6/26/2020 4:33:36 PM	53300
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/26/2020 10:35:49 PM	53309
Surr: BFB	97.6	66.6-105		%Rec	1	6/26/2020 10:35:49 PM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/26/2020 10:35:49 PM	53309
Toluene	ND	0.048		mg/Kg	1	6/26/2020 10:35:49 PM	53309
Ethylbenzene	ND	0.048		mg/Kg	1	6/26/2020 10:35:49 PM	53309
Xylenes, Total	ND	0.096		mg/Kg	1	6/26/2020 10:35:49 PM	53309
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/26/2020 10:35:49 PM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 1 of 18

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-5 3ft

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 10:10:00 AM

Lab ID: 2006C80-002

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/28/2020 2:55:33 PM	53361
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/27/2020 8:57:37 AM	53344
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/27/2020 8:57:37 AM	53344
Surr: DNOP	114	55.1-146		%Rec	1	6/27/2020 8:57:37 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/26/2020 10:59:24 PM	53309
Surr: BFB	97.7	66.6-105		%Rec	1	6/26/2020 10:59:24 PM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/26/2020 10:59:24 PM	53309
Toluene	ND	0.049		mg/Kg	1	6/26/2020 10:59:24 PM	53309
Ethylbenzene	ND	0.049		mg/Kg	1	6/26/2020 10:59:24 PM	53309
Xylenes, Total	ND	0.099		mg/Kg	1	6/26/2020 10:59:24 PM	53309
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/26/2020 10:59:24 PM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-6 2ft

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 10:50:00 AM

Lab ID: 2006C80-003

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	410	60		mg/Kg	20	6/28/2020 3:32:48 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/27/2020 9:27:29 AM	53344
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/27/2020 9:27:29 AM	53344
Surr: DNOP	105	55.1-146		%Rec	1	6/27/2020 9:27:29 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/27/2020 12:09:58 AM	53309
Surr: BFB	100	66.6-105		%Rec	1	6/27/2020 12:09:58 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 12:09:58 AM	53309
Toluene	ND	0.048		mg/Kg	1	6/27/2020 12:09:58 AM	53309
Ethylbenzene	ND	0.048		mg/Kg	1	6/27/2020 12:09:58 AM	53309
Xylenes, Total	ND	0.095		mg/Kg	1	6/27/2020 12:09:58 AM	53309
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/27/2020 12:09:58 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 3 of 18



## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: TT-6 3ft

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 11:20:00 AM

Lab ID: 2006C80-004

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/28/2020 4:34:51 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/27/2020 9:37:27 AM	53344
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/27/2020 9:37:27 AM	53344
Surr: DNOP	111	55.1-146		%Rec	1	6/27/2020 9:37:27 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/27/2020 12:33:25 AM	53309
Surr: BFB	101	66.6-105		%Rec	1	6/27/2020 12:33:25 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 12:33:25 AM	53309
Toluene	ND	0.048		mg/Kg	1	6/27/2020 12:33:25 AM	53309
Ethylbenzene	ND	0.048		mg/Kg	1	6/27/2020 12:33:25 AM	53309
Xylenes, Total	ND	0.097		mg/Kg	1	6/27/2020 12:33:25 AM	53309
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/27/2020 12:33:25 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 4 of 18

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- North West

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 11:45:00 AM

Lab ID: 2006C80-005

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	260	60		mg/Kg	20	6/28/2020 4:47:16 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/27/2020 9:47:24 AM	53344
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2020 9:47:24 AM	53344
Surr: DNOP	109	55.1-146		%Rec	1	6/27/2020 9:47:24 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/27/2020 12:56:58 AM	53309
Surr: BFB	101	66.6-105		%Rec	1	6/27/2020 12:56:58 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	6/27/2020 12:56:58 AM	53309
Toluene	ND	0.047		mg/Kg	1	6/27/2020 12:56:58 AM	53309
Ethylbenzene	ND	0.047		mg/Kg	1	6/27/2020 12:56:58 AM	53309
Xylenes, Total	ND	0.093		mg/Kg	1	6/27/2020 12:56:58 AM	53309
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/27/2020 12:56:58 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H-North

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 12:10:00 PM

Lab ID: 2006C80-006

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	280	60		mg/Kg	20	6/28/2020 4:59:40 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/27/2020 9:57:28 AM	53344
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2020 9:57:28 AM	53344
Surr: DNOP	103	55.1-146		%Rec	1	6/27/2020 9:57:28 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2020 1:20:35 AM	53309
Surr: BFB	99.2	66.6-105		%Rec	1	6/27/2020 1:20:35 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 1:20:35 AM	53309
Toluene	ND	0.049		mg/Kg	1	6/27/2020 1:20:35 AM	53309
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2020 1:20:35 AM	53309
Xylenes, Total	ND	0.098		mg/Kg	1	6/27/2020 1:20:35 AM	53309
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/27/2020 1:20:35 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 6 of 18

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H-North East

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 12:30:00 PM

Lab ID: 2006C80-007

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	260	60		mg/Kg	20	6/28/2020 5:12:04 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/27/2020 10:07:27 AM	53344
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2020 10:07:27 AM	53344
Surr: DNOP	104	55.1-146		%Rec	1	6/27/2020 10:07:27 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2020 1:44:10 AM	53309
Surr: BFB	97.7	66.6-105		%Rec	1	6/27/2020 1:44:10 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/27/2020 1:44:10 AM	53309
Toluene	ND	0.049		mg/Kg	1	6/27/2020 1:44:10 AM	53309
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2020 1:44:10 AM	53309
Xylenes, Total	ND	0.098		mg/Kg	1	6/27/2020 1:44:10 AM	53309
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/27/2020 1:44:10 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 7 of 18



## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- East

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 12:50:00 PM

Lab ID: 2006C80-008

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	280	60		mg/Kg	20	6/28/2020 5:24:28 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	75	9.4		mg/Kg	1	6/27/2020 10:17:38 AM	53344
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/27/2020 10:17:38 AM	53344
Surr: DNOP	95.0	55.1-146		%Rec	1	6/27/2020 10:17:38 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/27/2020 2:07:50 AM	53309
Surr: BFB	96.0	66.6-105		%Rec	1	6/27/2020 2:07:50 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 2:07:50 AM	53309
Toluene	ND	0.047		mg/Kg	1	6/27/2020 2:07:50 AM	53309
Ethylbenzene	ND	0.047		mg/Kg	1	6/27/2020 2:07:50 AM	53309
Xylenes, Total	ND	0.094		mg/Kg	1	6/27/2020 2:07:50 AM	53309
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	6/27/2020 2:07:50 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 8 of 18

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- South East

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 1:05:00 PM

Lab ID: 2006C80-009

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	270	60		mg/Kg	20	6/28/2020 5:36:52 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	68	9.1		mg/Kg	1	6/27/2020 10:27:41 AM	53344
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/27/2020 10:27:41 AM	53344
Surr: DNOP	95.4	55.1-146		%Rec	1	6/27/2020 10:27:41 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2020 2:31:35 AM	53309
Surr: BFB	96.4	66.6-105		%Rec	1	6/27/2020 2:31:35 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/27/2020 2:31:35 AM	53309
Toluene	ND	0.050		mg/Kg	1	6/27/2020 2:31:35 AM	53309
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2020 2:31:35 AM	53309
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2020 2:31:35 AM	53309
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	6/27/2020 2:31:35 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

Page 9 of 18

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- South

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 1:20:00 PM

Lab ID: 2006C80-010

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	270	60		mg/Kg	20	6/28/2020 5:49:17 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	68	10		mg/Kg	1	6/27/2020 10:37:45 AM	53344
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/27/2020 10:37:45 AM	53344
Surr: DNOP	92.4	55.1-146		%Rec	1	6/27/2020 10:37:45 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2020 2:55:18 AM	53309
Surr: BFB	99.2	66.6-105		%Rec	1	6/27/2020 2:55:18 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/27/2020 2:55:18 AM	53309
Toluene	ND	0.050		mg/Kg	1	6/27/2020 2:55:18 AM	53309
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2020 2:55:18 AM	53309
Xylenes, Total	ND	0.10		mg/Kg	1	6/27/2020 2:55:18 AM	53309
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/27/2020 2:55:18 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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

## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- South West

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 1:55:00 PM

Lab ID: 2006C80-011

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	270	60		mg/Kg	20	6/28/2020 6:01:41 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	63	9.3		mg/Kg	1	6/27/2020 10:47:49 AM	53344
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/27/2020 10:47:49 AM	53344
Surr: DNOP	80.5	55.1-146		%Rec	1	6/27/2020 10:47:49 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/27/2020 3:18:55 AM	53309
Surr: BFB	96.9	66.6-105		%Rec	1	6/27/2020 3:18:55 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 3:18:55 AM	53309
Toluene	ND	0.048		mg/Kg	1	6/27/2020 3:18:55 AM	53309
Ethylbenzene	ND	0.048		mg/Kg	1	6/27/2020 3:18:55 AM	53309
Xylenes, Total	ND	0.095		mg/Kg	1	6/27/2020 3:18:55 AM	53309
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	6/27/2020 3:18:55 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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



## Analytical Report

Lab Order 2006C80

Date Reported: 6/29/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: H- West

Project: Devon Cotton Draw 506H

Collection Date: 6/23/2020 2:25:00 PM

Lab ID: 2006C80-012

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	260	60		mg/Kg	20	6/28/2020 6:38:54 PM	53364
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	66	9.2		mg/Kg	1	6/27/2020 10:57:59 AM	53344
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/27/2020 10:57:59 AM	53344
Surr: DNOP	88.4	55.1-146		%Rec	1	6/27/2020 10:57:59 AM	53344
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2020 3:42:29 AM	53309
Surr: BFB	95.9	66.6-105		%Rec	1	6/27/2020 3:42:29 AM	53309
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/27/2020 3:42:29 AM	53309
Toluene	ND	0.049		mg/Kg	1	6/27/2020 3:42:29 AM	53309
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2020 3:42:29 AM	53309
Xylenes, Total	ND	0.097		mg/Kg	1	6/27/2020 3:42:29 AM	53309
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	6/27/2020 3:42:29 AM	53309

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	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#: 2006C80

29-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>MB-53361</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53361</b>	RunNo: <b>69968</b>								
Prep Date: <b>6/28/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430868</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-53361</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53361</b>	RunNo: <b>69968</b>								
Prep Date: <b>6/28/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430869</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Sample ID: <b>MB-53364</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53364</b>	RunNo: <b>69968</b>								
Prep Date: <b>6/28/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430898</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-53364</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53364</b>	RunNo: <b>69968</b>								
Prep Date: <b>6/28/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430899</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	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#: 2006C80

29-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>MB-53300</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53300</b>	RunNo: <b>69928</b>								
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>	SeqNo: <b>2428774</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	55.1	146			

Sample ID: <b>LCS-53300</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53300</b>	RunNo: <b>69943</b>								
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>	SeqNo: <b>2429064</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	10	50.00	0	121	70	130			
Surr: DNOP	6.2		5.000		124	55.1	146			

Sample ID: <b>2006C80-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>TT-5 3ft</b>	Batch ID: <b>53344</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429335</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.7	48.40	0	110	47.4	136			
Surr: DNOP	5.5		4.840		113	55.1	146			

Sample ID: <b>2006C80-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>TT-5 3ft</b>	Batch ID: <b>53344</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429336</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.8	48.83	0	103	47.4	136	6.20	43.4	
Surr: DNOP	4.9		4.883		100	55.1	146	0	0	

Sample ID: <b>LCS-53344</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53344</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429356</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	70	130			
Surr: DNOP	5.2		5.000		105	55.1	146			

**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#: 2006C80

29-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>MB-53344</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53344</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429357</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	55.1	146			

Sample ID: <b>LCS-53347</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53347</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429760</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		116	55.1	146			

Sample ID: <b>LCS-53351</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53351</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/27/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429761</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.5	55.1	146			

Sample ID: <b>LCS-53354</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53354</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/27/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429762</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.7	55.1	146			

Sample ID: <b>MB-53347</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53347</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429763</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		118	55.1	146			

Sample ID: <b>MB-53351</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53351</b>	RunNo: <b>69949</b>								
Prep Date: <b>6/27/2020</b>	Analysis Date: <b>6/27/2020</b>	SeqNo: <b>2429764</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		85.2	55.1	146			

**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#: 2006C80  
29-Jun-20

Client: Safety & Environmental Solutions  
Project: Devon Cotton Draw 506H

Sample ID: MB-53354	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53354	RunNo: 69949								
Prep Date: 6/27/2020	Analysis Date: 6/27/2020	SeqNo: 2429765		Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.3		10.00		83.3	55.1	146			

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#: 2006C80

29-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>Ics-53309</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>53309</b>				RunNo: <b>69929</b>					
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>				SeqNo: <b>2428926</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.6	80	120			
Surr: BFB	1100		1000		110	66.6	105			S

Sample ID: <b>mb-53309</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>53309</b>				RunNo: <b>69929</b>					
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>				SeqNo: <b>2428927</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.9	66.6	105			

Sample ID: <b>Ics-53341</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>53341</b>				RunNo: <b>69963</b>					
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/28/2020</b>				SeqNo: <b>2430054</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	66.6	105			S

Sample ID: <b>mb-53341</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>53341</b>				RunNo: <b>69963</b>					
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/28/2020</b>				SeqNo: <b>2430056</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	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 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#: 2006C80

29-Jun-20

**Client:** Safety & Environmental Solutions**Project:** Devon Cotton Draw 506H

Sample ID: <b>LCS-53309</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53309</b>	RunNo: <b>69929</b>								
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>	SeqNo: <b>2428928</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.3	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID: <b>mb-53309</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53309</b>	RunNo: <b>69929</b>								
Prep Date: <b>6/25/2020</b>	Analysis Date: <b>6/26/2020</b>	SeqNo: <b>2428929</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: <b>LCS-53341</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53341</b>	RunNo: <b>69963</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430076</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: <b>mb-53341</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53341</b>	RunNo: <b>69963</b>								
Prep Date: <b>6/26/2020</b>	Analysis Date: <b>6/28/2020</b>	SeqNo: <b>2430078</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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 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 Harbourside NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4167  
 Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: Safety & Environmental Solutions

Work Order Number: 2006C80

RepIDNo: 1

Received By: Juan Rojas

6/25/2020 9:40:00 AM

Completed By: Juan Rojas

6/25/2020 10:20:16 AM

Reviewed By: *mg*

06/25/20

### Chain of Custody

1. Is Chain of Custody 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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? Yes ☒ No ☐  
 (Note discrepancies on chain of custody)  
 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? Yes ☒ No ☐  
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH:

( $<2$  or  $>12$  unless noted)

Adjusted?

Checked by: *SPA 6-25-20*

### 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				
2	2.3	Good				





Incident ID	nOY1808043902
District RP	1RP-4995
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?	<u>&lt;51</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nOY1808043902
District RP	1RP-4995
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: Dale Woodall Title: Environmental ProfessionalSignature: Dale Woodall Date: 9/9/2022email: Dale.Woodall@dyn.com Telephone: 575-748-1838**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nOY1808043902
District RP	1R-4995
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: Dale Woodall Title: Environmental Professional  
Signature: Dale Woodall Date: 9/9/2022  
email: Dale.Woodall@dm.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



Incident ID	
District RP	1R-4995
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: Dale Woodall Title: EHS Professional  
Signature: Dale Woodall Date: 9/9/2022  
email: Dale.Woodall@dvn.com Telephone: 575-748-1838

**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: Jennifer Nobui Date: 09/12/2022  
Printed Name: Jennifer Nobui Title: Environmental Specialist A

**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 141815

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 141815
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	9/12/2022