

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Dale Woodall Date: 5/23/2023

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: Robert Hamlet Date: 10/16/2023

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: Robert Hamlet Date: 10/16/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

Incident ID	NAB1801849148
District RP	2RP-4569
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>300'</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	NAB1801849148
District RP	2RP-4569
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 Professional  
 Signature: Dale Woodall Date: 5/23/2023  
 email: Dale.Woodall@dvn.com Telephone: 575.748.1838

**OCD Only**

Received by: Jocelyn Harimon Date: 05/23/2023

Incident ID	NAB1801849148
District RP	2RP-4569
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: 5/23/2023  
 email: Dale.Woodall@dvn.com Telephone: 575.748.1838

**OCD Only**

Received by: Jocelyn Harimon Date: 05/23/2023

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

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

Incident ID	NAB1801849148
District RP	2RP-4569
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: Environmental Professional  
 Signature: Dale Woodall Date: 5/23/2023  
 email: Dale.Woodall@dvn.com Telephone: 575.748.1838

**OCD Only**

Received by: Jocelyn Harimon Date: 05/23/2023

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

## Snapping 2 State 6 & 7 Battery

Section 2, Township 26S, Range 31E  
Eddy County, New Mexico

### CLOSURE REPORT

NAB1801849148

August 5, 2021

Amended May 12, 2023



Prepared for:

Devon Energy Production Company  
6488 Seven Rivers Highway  
Artesia, NM 88210

By:

Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
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 engaged by Devon Energy to perform a site assessment at the Snapping 2 State 6 & 7 battery concerning a release on the location. The release occurred on December 31, 2017, with a produced water release volume of 52 bbls. A vacuum truck was dispatched and recovered 52 bbls of fluid. This release was assigned RP number 2RP-4569 and incident number NAB1801849148. All fluids released remained inside the containment. This site is situated in Eddy County, Section 2, Township 26S, and Range 31E.

SESI personnel performed an assessment of the tank battery liner in December of 2020 at the request of the operator. SESI photo documented the liner inspection and observed several defects in the liner. Repair of those defects was conducted and documented within this attached report.

## Surface and Ground Water

According to the NMOCD Oil and Gas map contained in this report, there is no surface water within 2,000 feet of this release. According to the records of the New Mexico Office of the State Engineer, the average depth to groundwater in the area is between 300' and 375', as demonstrated by two wells within a half mile of the release that are less than 25 years old. The well files are in this report and are identified by NMOSE as C03639 and C04256.

On June 15, 2022, a temporary well with the identifier POD 1 (TW-1)/OSE File Number C-4637 was drilled 55 feet below the surface of the ground. No groundwater was discovered. The POD is located on the adjacent location to the West of the Snapping 2 State 6 and 7.

## Characterization

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
>100 feet	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**

\*Or other test methods approved by the division.

\*\*Numerical limits or natural background level, whichever is greater.

\*\*\*This applies to releases of produced water or other fluids, which may contain chloride.

[19.15.29.12 NMAC - N, 8/14/2018]

The absence of groundwater above 55' bgs in POD Number C-4637 changes the contaminate target requirement to 10,000 ppm Chlorides, and 2,500 ppm TPH.

#### Release Area (NAB1801849148, 2RP-4569), Investigation:

According to the C-141 for this release, all fluids remained in the containment, and were recovered by vacuum truck. As previously mentioned, a liner inspection has been performed in December 2020. On March 3, 2021, SESI personnel identified and repaired the nine breaches in the liner. The holes in the liner were repaired without sampling below the liner to determine if any contaminants had migrated into the soil below the liner.

#### Corrective Action

On March 9, 2023, SESI collected soil samples below the liner in the locations repaired in March 2021. After the samples were taken, the liner was repaired. Samples were taken at the surface and 1-foot intervals until field testing indicated the samples to meet target levels. For liner samples #3 through #9, auger refusal was encountered at a depth of 5 and 8 inches, resulting in the collection of only surface soil samples immediately under the liner. Photo documentation is provided for your review.

All soil samples were properly packaged, preserved, and transported to Hall Laboratories via Chain of Custody for analyses of Chloride (Cl Method 300.0), Diesel Organics (DRO Method 8015 M/D), Gasoline Range (GRO Method 8015D), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX Method 8021B). The results are tabulated in the table below:

Devon –Snapping 2 State 6 & Battery								
Sampling Date: 03/09/2023								
Soil Sample Results: Hall Environmental Analysis Laboratory (2303643)								
Sample ID	Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes, Total (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)
Liner #1 Surface	ND	ND	ND	ND	ND	ND	110	210
Liner #1 1'	ND	ND	ND	ND	ND	ND	29	60
Liner #2 Surface	ND	ND	ND	ND	ND	ND	110	160
Liner #2 1'	320	ND	ND	ND	ND	ND	ND	ND
Liner #3 Surface	2700	ND	ND	ND	ND	ND	16	ND
Liner #4 Surface	460	ND	ND	ND	ND	ND	220	300
Liner #5 Surface	820	ND	ND	ND	ND	ND	ND	ND
Liner #6 Surface	87	ND	ND	ND	ND	ND	120	170
Liner #7 Surface	ND	ND	ND	ND	ND	ND	25	45
Liner #8 Surface	ND	ND	ND	ND	ND	ND	ND	ND
Liner #9 Surface	310	ND	ND	ND	ND	ND	670	900

The results of the sampling below the liner performed on March 9, 2023, even in the areas where auger refusal was encountered, are all below the contaminant target range determined after the installation of POD Number C-4637. Devon respectfully requests that any contamination underneath the liner be deferred until closure of the battery.

**Supplemental Documentation**

- Document 1: Vicinity Map
- Document 2: OSE Information
- Document 3: NMOCD Oil and Gas Map
- Document 4: BLM Cave Karst Map
- Document 5: FEMA Floodplain Map
- Document 6: Photographs of compromised areas and repairs
- Document 7: Lab Analysis
- Document 8: C-141 initial, final

Pod C-4637

Legend

Write a description for your map.



SNAPPING 6&7

Pod c-4637

32.0658917, -103.74916

NA under RL'S

Sample Point 4

Sample Point 3

Sample Point 2

Devon Snapping 2 State 6,7,8

Pipeline Rd





## New Mexico Office of the State Engineer

# Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 6	Q 4	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
<a href="#">C 01777</a>		C	ED				08	26S	31E	613245	3547409*	325	300	25
<a href="#">C 02090</a>		C	ED	4	4	01		26S	31E	620329	3548533*	350	335	15
<a href="#">C 02248</a>		CUB	ED	1	2	3	08	26S	31E	612942	3547316*	300	292	8
<a href="#">C 02249</a>		CUB	ED	1	2	3	08	26S	31E	612942	3547316*	300	292	8
<a href="#">C 03554 POD1</a>		CUB	ED	2	1	4	01	26S	31E	620547	3549148	630	300	330
<a href="#">C 03639 POD1</a>		CUB	ED	3	4	2	01	26S	31E	620168	3549279	700	365	335
<a href="#">C 04256 POD1</a>		C	ED	4	4	2	01	26S	31E	620384	3549257	666	340	326

Average Depth to Water: **317 feet**

Minimum Depth: **292 feet**

Maximum Depth: **365 feet**

**Record Count:** 7

**PLSS Search:**

**Township:** 26S **Range:** 31E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/11/19 7:25 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	03639 POD1	3	4	2	01	26S	31E	620168	3549279

---

<b>Driller License:</b> 1654	<b>Driller Company:</b> NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC	
<b>Driller Name:</b>		
<b>Drill Start Date:</b> 09/23/2013	<b>Drill Finish Date:</b> 09/25/2013	<b>Plug Date:</b>
<b>Log File Date:</b> 10/25/2013	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 6.00	<b>Depth Well:</b> 700 feet	<b>Depth Water:</b> 365 feet

---

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	560	600	Sandstone/Gravel/Conglomerate

---

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>	
	600	660	

---

<b>Meter Number:</b> 16575	<b>Meter Make:</b> MASTERMETER	
<b>Meter Serial Number:</b> 8827642	<b>Meter Multiplier:</b> 100.0000	
<b>Number of Dials:</b> 6	<b>Meter Type:</b> Diversion	
<b>Unit of Measure:</b> Gallons	<b>Return Flow Percent:</b>	
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b>	

**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
12/26/2013	2013	4487	A	RPT		0
04/01/2014	2014	15593	A	RPT		3.408
07/01/2014	2014	27654	A	RPT		3.701
10/01/2014	2014	43114	A	RPT		4.744
12/31/2014	2014	54047	A	RPT		3.355
02/01/2015	2015	55287	A	RPT		0.381
03/02/2015	2015	56670	A	RPT		0.424
04/02/2015	2015	60341	A	RPT		1.127
04/30/2015	2015	65590	A	RPT		1.611
05/31/2015	2015	71252	A	RPT		1.738
07/01/2015	2015	74451	A	RPT		0.982
08/01/2015	2015	77975	A	RPT		1.081
08/31/2015	2015	82253	A	RPT		1.313
10/01/2015	2015	86369	A	RPT		1.263

---

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2013	0
	2014	15.208
	2015	9.920

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/13/21 12:50 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	C 04256 POD1	4	4	2	01	26S	31E	620384	3549257

<b>Driller License:</b> 1706	<b>Driller Company:</b> ELITE DRILLERS CORPORATION	
<b>Driller Name:</b> BRYCE WALLACE		
<b>Drill Start Date:</b> 06/28/2018	<b>Drill Finish Date:</b> 07/04/2018	<b>Plug Date:</b>
<b>Log File Date:</b> 07/18/2018	<b>PCW Rev Date:</b>	<b>Source:</b> Artesian
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 40 GPM
<b>Casing Size:</b> 5.80	<b>Depth Well:</b> 666 feet	<b>Depth Water:</b> 340 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	330	390	Sandstone/Gravel/Conglomerate
	390	430	Sandstone/Gravel/Conglomerate
	430	480	Sandstone/Gravel/Conglomerate
	480	610	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	326	666

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/13/21 12:51 PM

POINT OF DIVERSION SUMMARY



2904 W 2nd St  
Roswell, NM 88201  
voice: 505.624.2420  
fax: 505.624.2421  
www.atkinseng.com

August 4, 2022

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4637 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4637 Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive, flowing style.

Lucas Middleton

Enclosures: as noted above

OSE DE AUG 8 2022 4:10:10



# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

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

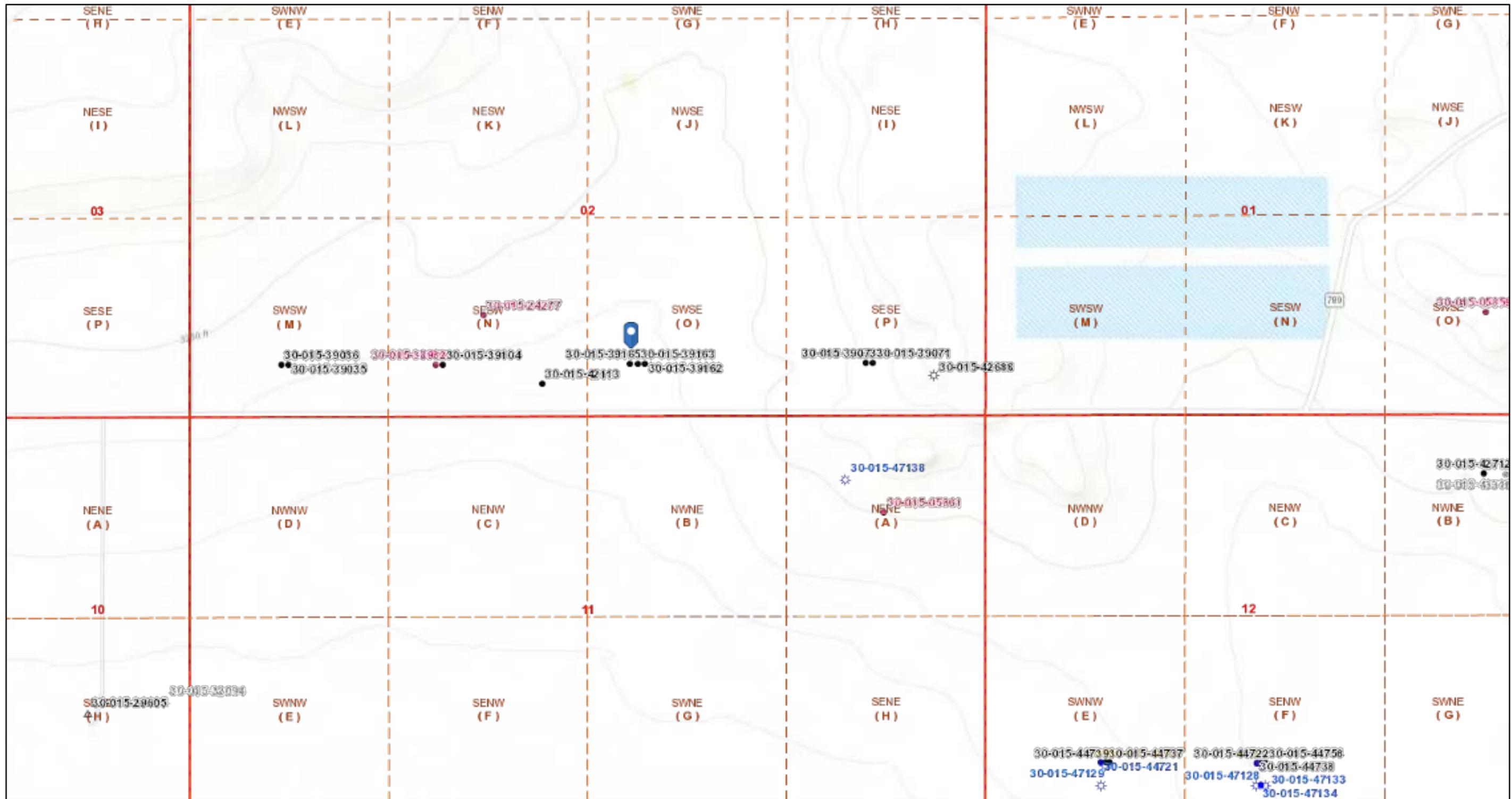
WELL LOG 6/15/2022 #4637

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) <b>POD 1 (TW-1)</b>		WELL TAG ID NO. <b>N/A</b>		OSE FILE NO(S) <b>C-4637</b>			
	WELL OWNER NAME(S) <b>Devon Energy</b>				PHONE (OPTIONAL) <b>575-748-1838</b>			
	WELL OWNER MAILING ADDRESS <b>6488 7 Rivers Hwy</b>				CITY <b>Artesia</b>	STATE <b>NM</b>	ZIP <b>88210</b>	
	WELL LOCATION (FROM GPS)	DEGREES <b>32</b>	MINUTES <b>3</b>	SECONDS <b>57.21</b>	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LATITUDE <b>N</b>	DEGREES <b>103</b>	MINUTES <b>44</b>	SECONDS <b>57.0</b>	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>SE SE SW Sec.2 T26S R31S NMPM</b>								
2. DRILLING & CASING INFORMATION	LICENSE NO. <b>1249</b>		NAME OF LICENSED DRILLER <b>Jackie D. Atkins</b>			NAME OF WELL DRILLING COMPANY <b>Atkins Engineering Associates, Inc.</b>		
	DRILLING STARTED <b>6/15/2022</b>	DRILLING ENDED <b>6/15/2022</b>	DEPTH OF COMPLETED WELL (FT) <b>Temporary Well</b>	BORE HOLE DEPTH (FT) <b>±51</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>N/A</b>			
	COMPLETED WELL IS: <input type="checkbox"/> ARTERIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) <b>N/A</b>	DATE STATIC MEASURED <b>6/15/2022, 7/19/2022</b>		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: <b>Hollow Stem Auger</b>					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameters)	CASING INSIDE DIAM (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	55	46.5	Boring-HSA	-	-	-	-
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 01/28/2022)			
FILE NO. <b>C-04637-Pod1</b>	POD NO. <b>1</b>	TRN NO. <b>726494</b>			
LOCATION <b>26S.31E.02.4.4.3.</b>	WELL TAG ID NO. <b> </b>	PAGE 1 OF 2			



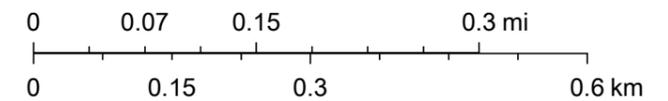
# Devon, Snapping 2 State 6 & 7 Battery



12/30/2020, 9:31:25 AM

1:9,028

- |                     |                              |                                    |                                   |   |
|---------------------|------------------------------|------------------------------------|-----------------------------------|---|
| Wells - Large Scale | ★ CO2, Temporarily Abandoned | ↗ Injection, Active                | ● Oil, Cancelled                  | ▲ Salt Water Injection, New                   |
| ⚡ undefined         | ⊛ Gas, Active                | ↘ Injection, Cancelled             | ● Oil, New                        | ▲ Salt Water Injection, Plugged               |
| ● Miscellaneous     | ⊛ Gas, Cancelled             | ↗ Injection, New                   | ● Oil, Plugged                    | ▲ Salt Water Injection, Temporarily Abandoned |
| ★ CO2, Active       | ⊛ Gas, New                   | ↘ Injection, Plugged               | ● Oil, Temporarily Abandoned      | ● Water, Active                               |
| ★ CO2, Cancelled    | ⊛ Gas, Plugged               | ↗ Injection, Temporarily Abandoned | ▲ Salt Water Injection, Active    | ● Water, Cancelled                            |
| ★ CO2, New          | ⊛ Gas, Temporarily Abandoned | ● Oil, Active                      | ▲ Salt Water Injection, Cancelled | ● Water, New                                  |
| ★ CO2, Plugged      |                              |                                    |                                   |   |



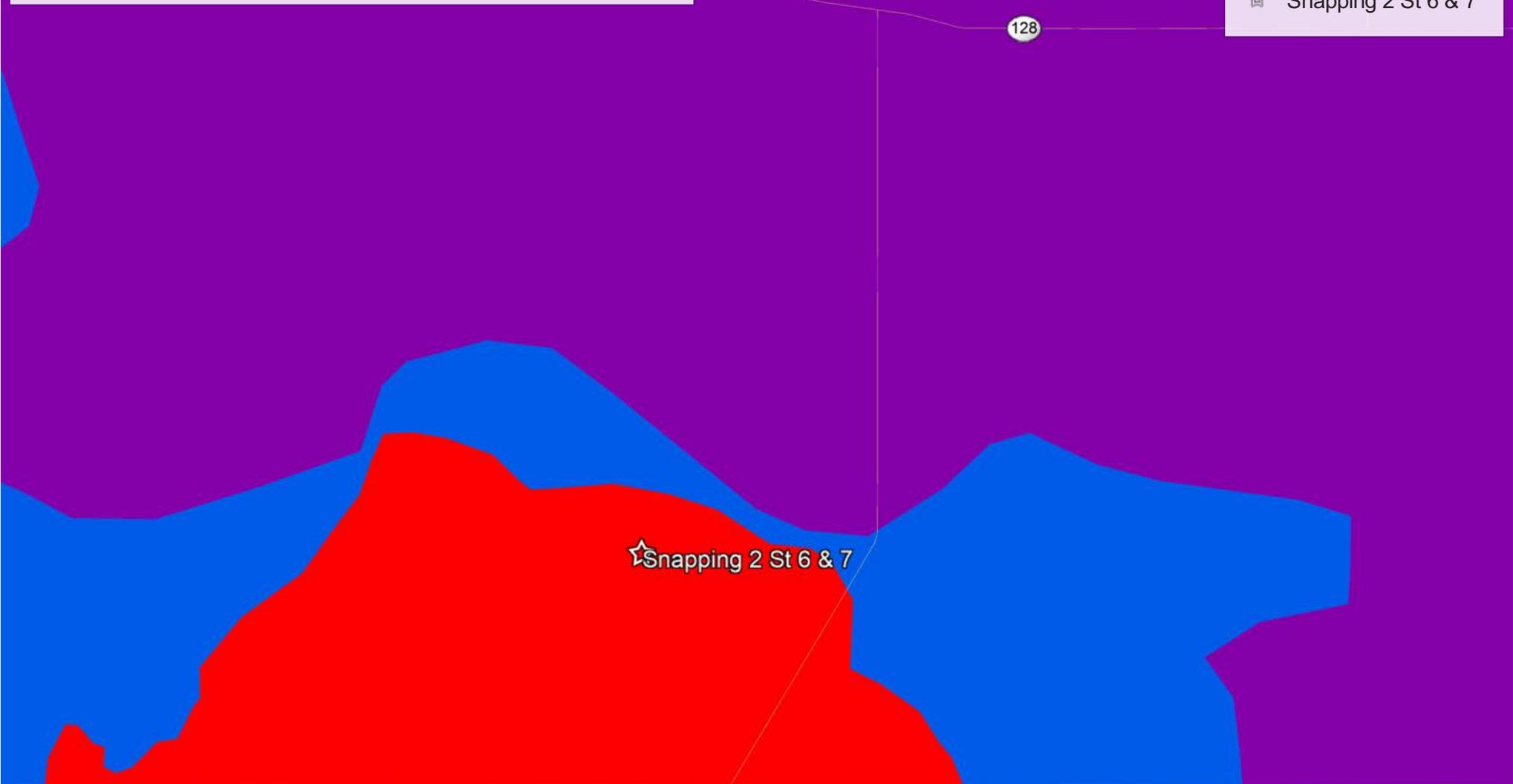
Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., OCD, BLM

# Devon, Snapping 2 State 6 & 7 Battery

Eddy County, NM

## Legend

-  High potential
-  Snapping 2 St 6 & 7



Google Earth

# National Flood Hazard Layer FIRMette



103°45'11"W 32°4'13"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
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

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 **12/30/2020 at 11:38 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

USGS The National Map: Orthoimagery. Data refreshed October, 2020.

Devon, Snapping 2 State 6 & 7 Battery  
April 3, 2019



Initial release photo 1



Initial release photo 2



Initial release photo 3



Initial release photo 4

Devon, Snapping 2 State 6 & 7 Battery  
May 22, 2019



Northeast looking South inside view of containment



Northeast looking South outside view of containment



Northeast looking West inside view of containment



Northeast looking West outside view of containment

### Devon, Snapping 2 State 6 & 7 Battery May 22, 2019



Northwest looking South inside view of containment



Northwest looking South outside view of containment



Southeast corner view at battery



Southeast corner looking North

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



Southwest corner facing East outside



Southwest corner facing East inside



Southwest corner facing North outside



Southwest corner facing North inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



South side facing North inside



South side facing North inside



Southeast corner facing West outside



Southeast corner facing West inside

# Devon, Snapping 2 State 6 & 7 Battery

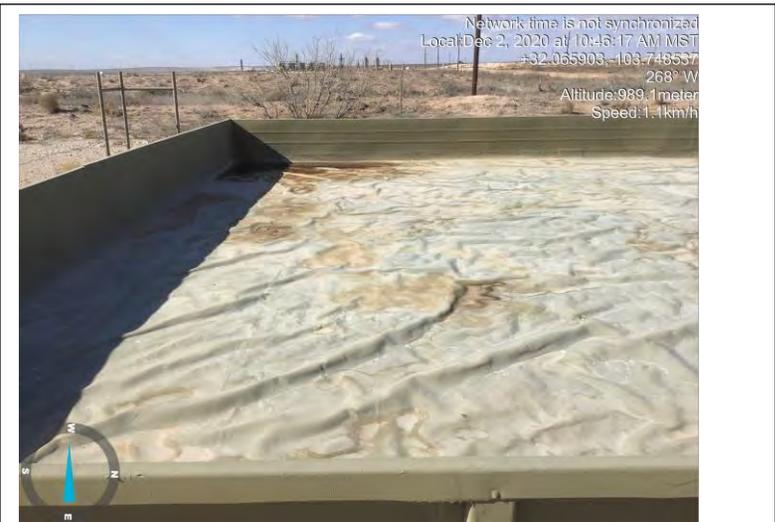
December 2, 2020



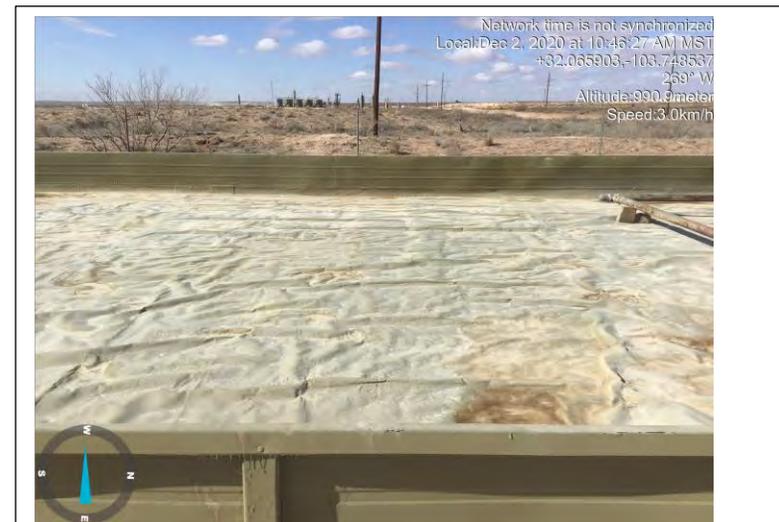
Southeast corner facing North outside



Southeast corner facing North inside



East side facing West inside



East side facing West inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



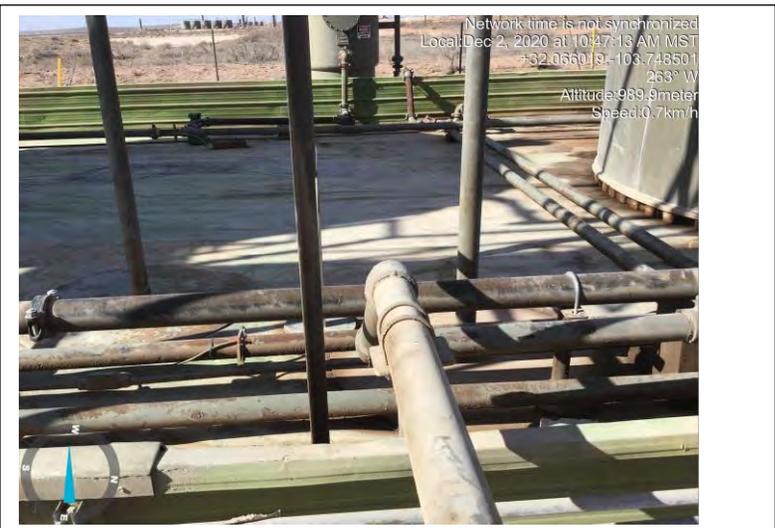
Network time is not synchronized  
Local Dec 2, 2020 at 10:46:52 AM MST  
+32.065939, -103.748426  
271° W  
Altitude: 991.5 meter  
Speed: 1.0 km/h

East side facing West inside



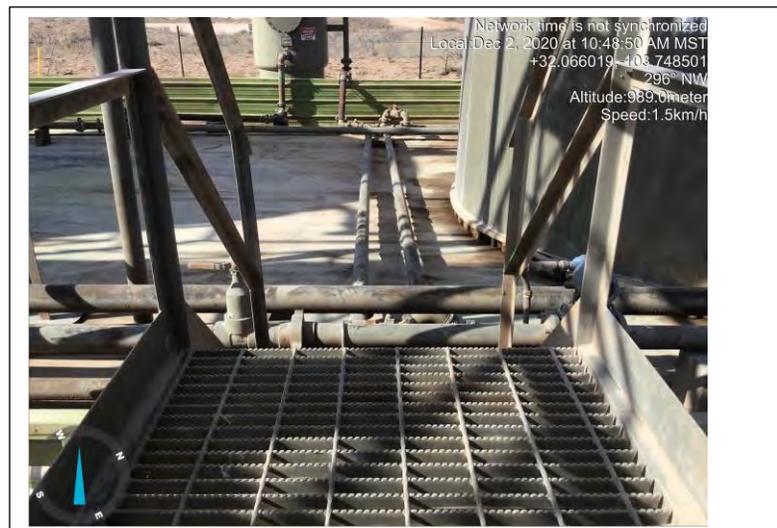
Network time is not synchronized  
Local Dec 2, 2020 at 10:47:04 AM MST  
+32.066019, -103.748501  
260° W  
Altitude: 990.3 meter  
Speed: 4.2 km/h

East side facing West inside



Network time is not synchronized  
Local Dec 2, 2020 at 10:47:13 AM MST  
+32.066019, -103.748501  
263° W  
Altitude: 989.9 meter  
Speed: 0.7 km/h

East side facing West inside



Network time is not synchronized  
Local Dec 2, 2020 at 10:48:50 AM MST  
+32.066019, -103.748501  
296° NW  
Altitude: 989.0 meter  
Speed: 1.5 km/h

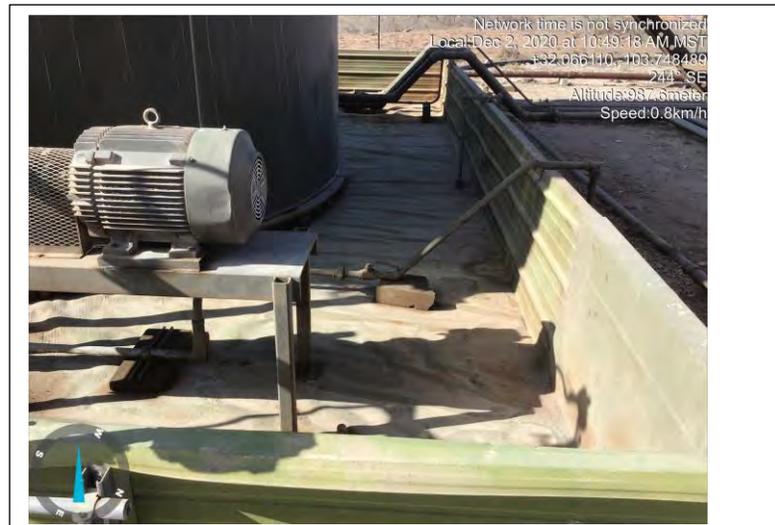
East side facing West inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



East side facing West inside



East side facing West inside



Northeast corner facing West outside



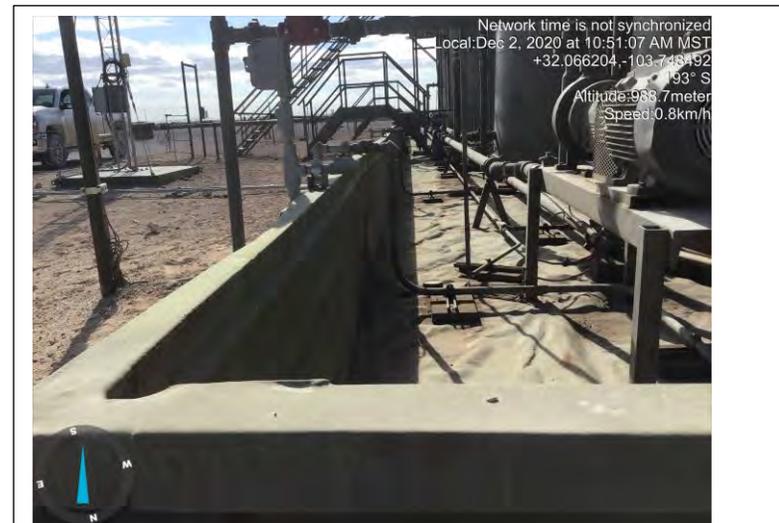
Northeast corner facing West inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



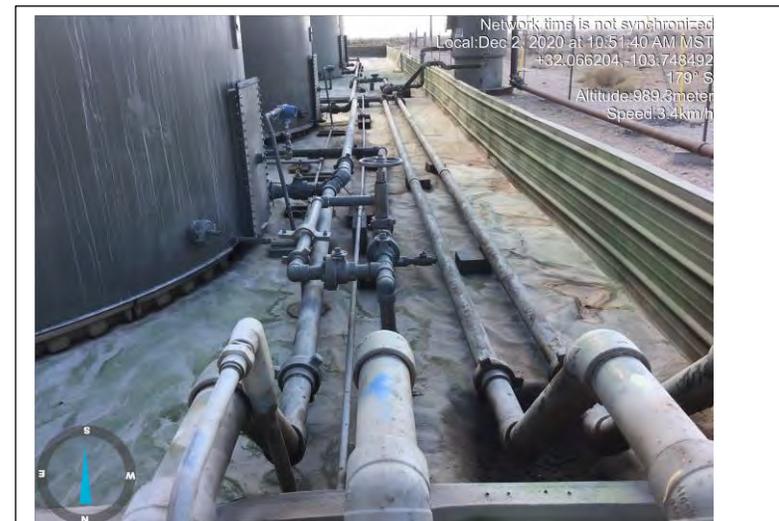
Northeast corner facing South outside



Northeast corner facing South inside



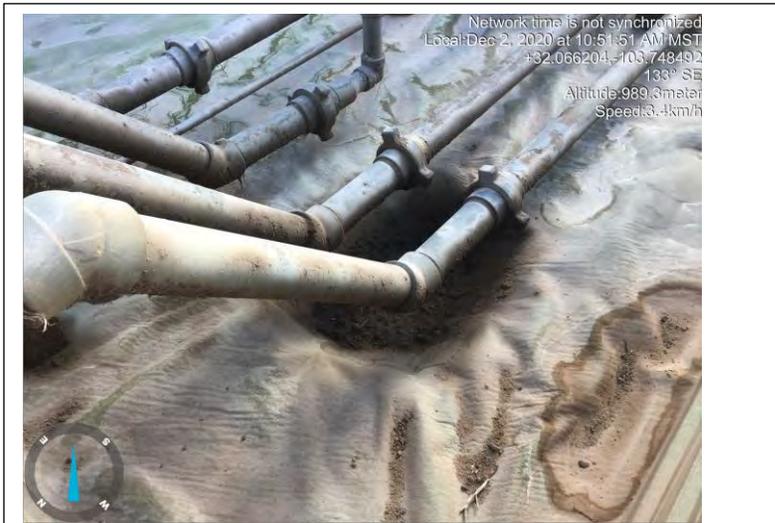
North side facing South inside



North side facing South inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



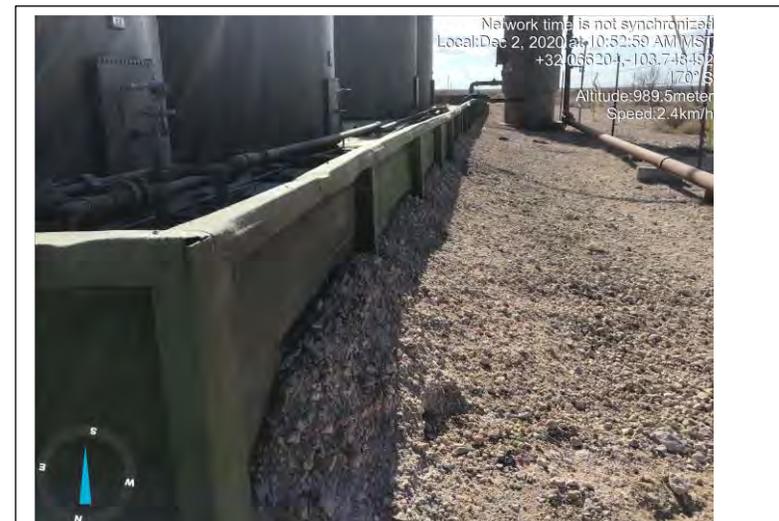
Northwest corner inside sump



Northwest corner facing East outside



Northwest corner facing East inside



Northwest corner facing South outside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



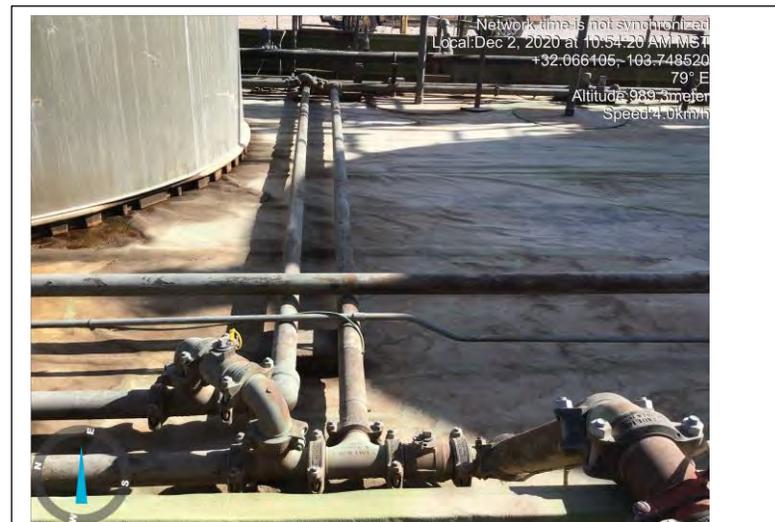
Northwest corner facing South inside



West side facing East inside



West side facing East inside



West side facing East inside

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



West side facing East inside



West side facing East inside



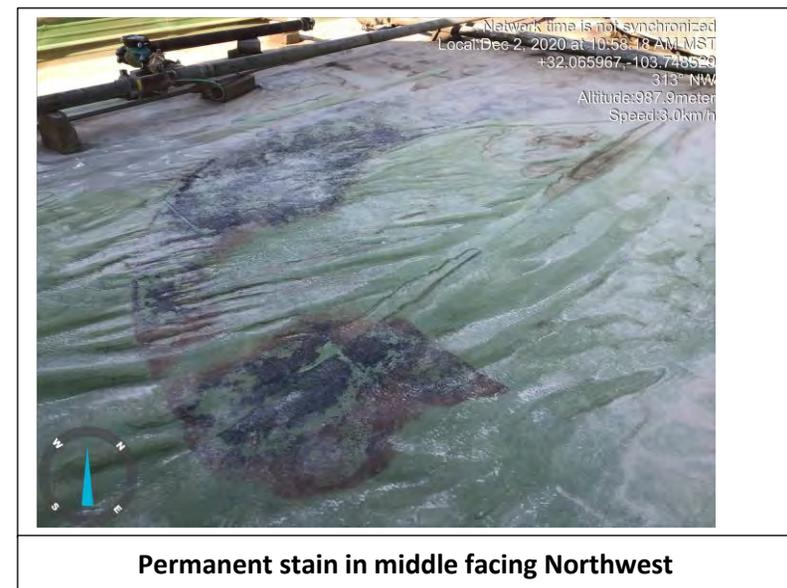
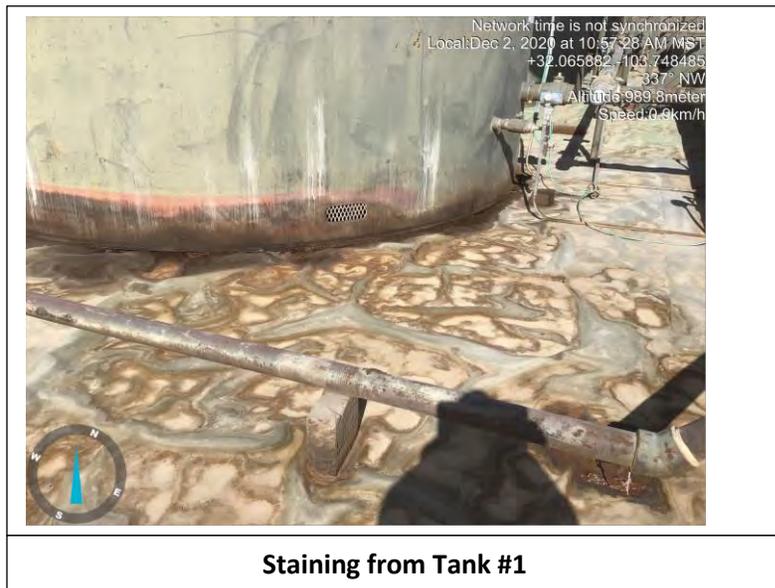
West side facing East inside



West side facing East inside

# Devon, Snapping 2 State 6 & 7 Battery

## December 2, 2020



# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



Stains at bottom of tank #2



Stains at bottom of tanks #3 & #4



Hole in liner marked #1



Hole in liner marked #2

# Devon, Snapping 2 State 6 & 7 Battery

## December 2, 2020



Hole in liner marked #3



Hole in liner marked #4



Hole in liner marked #5



Hole in liner marked #6

# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



Hole in liner marked #7



Hole in liner marked #8



Hole in liner marked #9



Hole in liner marked #10

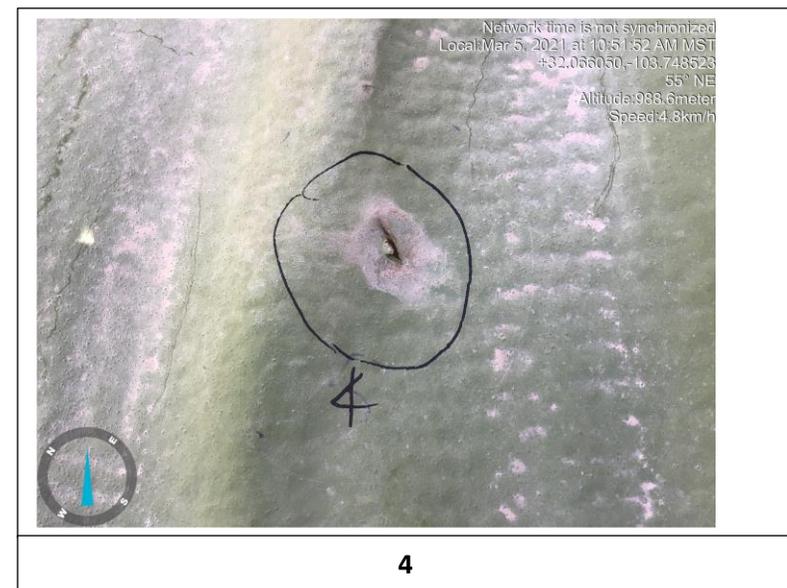
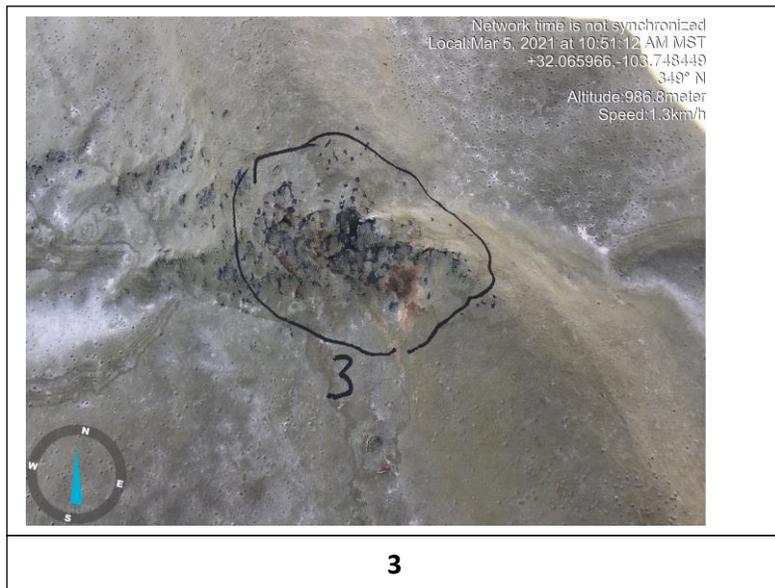
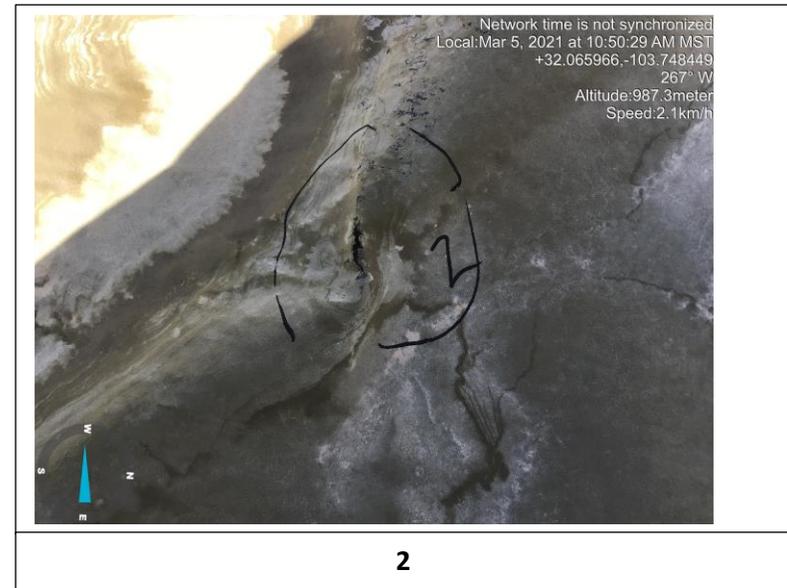
# Devon, Snapping 2 State 6 & 7 Battery

December 2, 2020



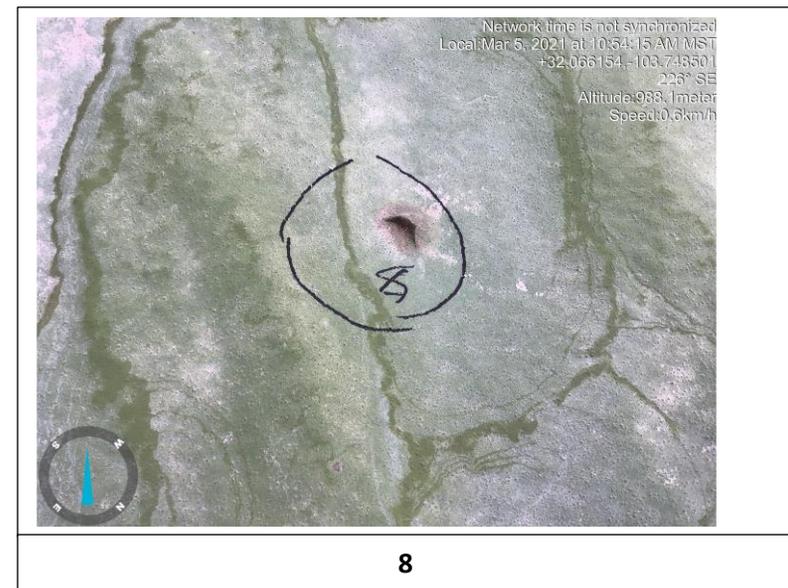
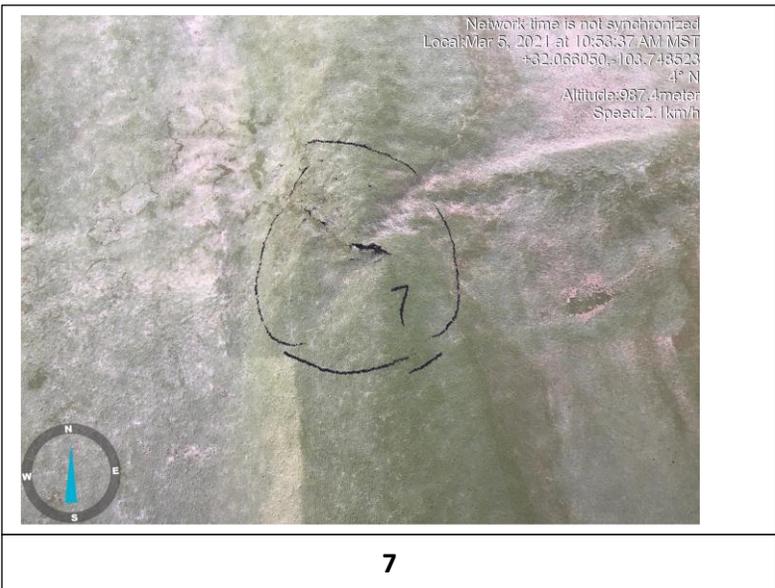
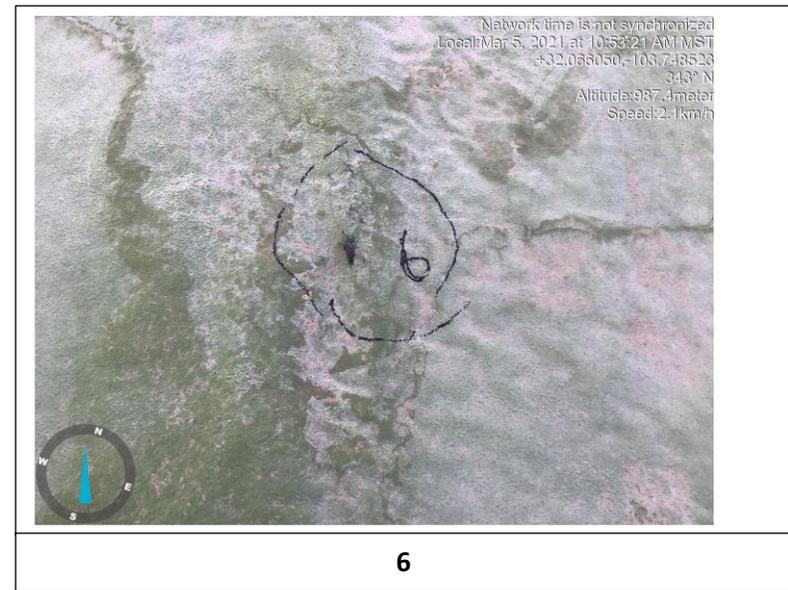
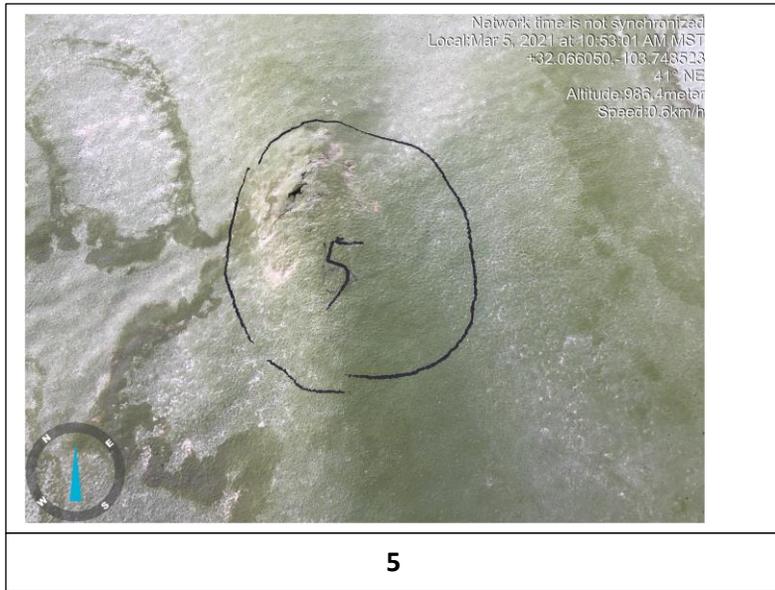
# Devon, Snapping 2 State 6 & 7 Battery

## March 5, 2021



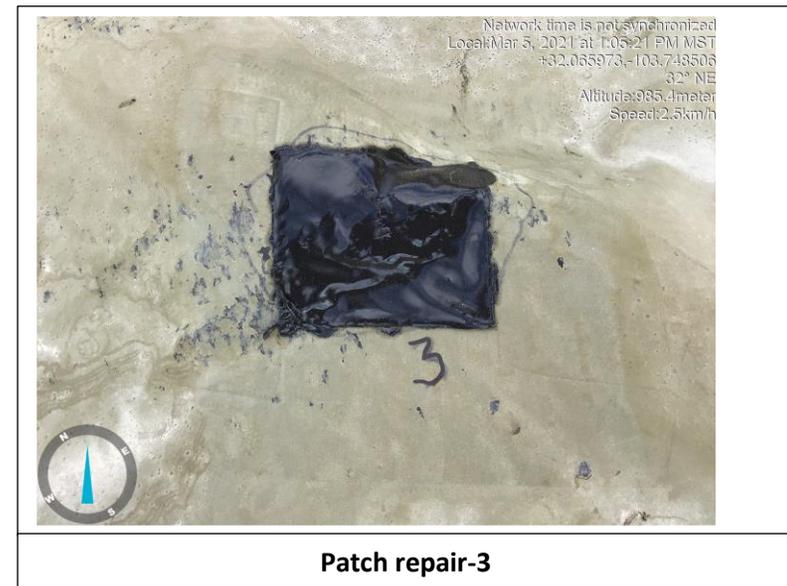
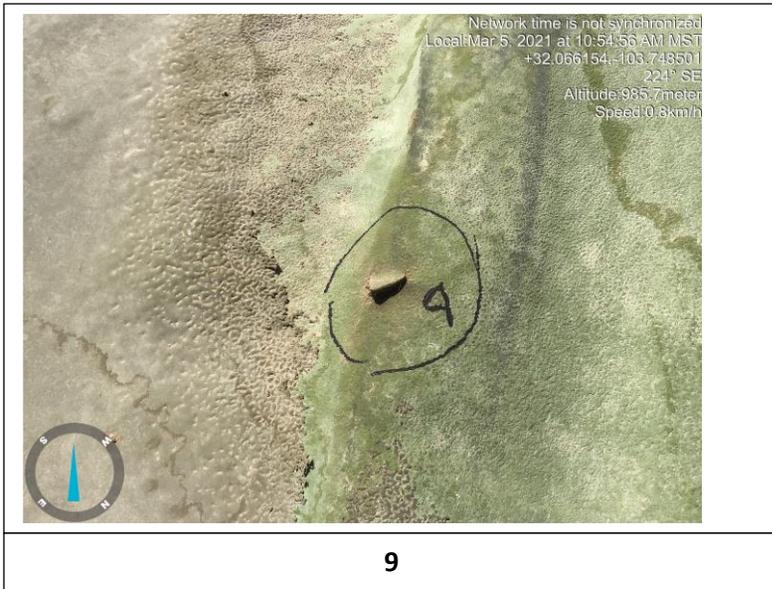
# Devon, Snapping 2 State 6 & 7 Battery

## March 5, 2021



# Devon, Snapping 2 State 6 & 7 Battery

## March 5, 2021



# Devon, Snapping 2 State 6 & 7 Battery

## March 5, 2021



Patch repair-4



Patch repair-5



Patch repair-6



Patch repair-7

# Devon, Snapping 2 State 6 & 7 Battery

March 5, 2021



Patch repair-8



Patch repair-9

### Devon, Snapping 2 State 6 & 7 Battery March 9, 2023



Liner Sample Point #1-facing North



Liner Sample Point #1



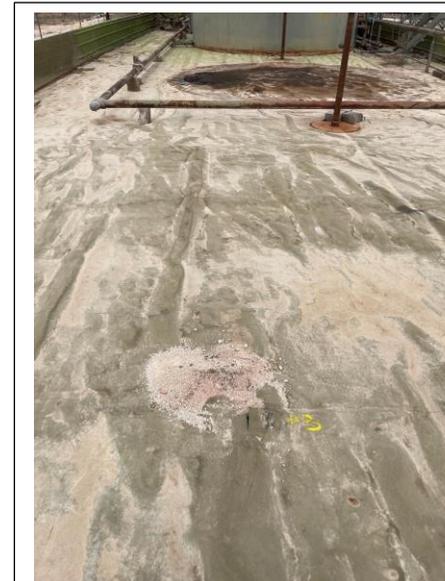
Liner Sample Point #1-patched



Liner Sample Point #2



Liner Sample Point #2-patched



Liner Sample Point #3-facing North

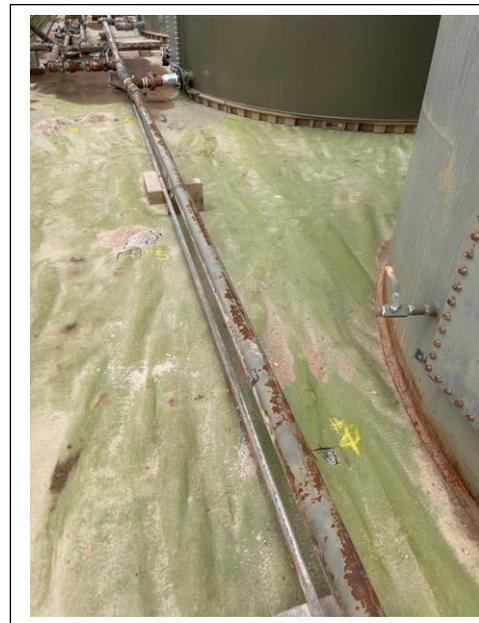
### Devon, Snapping 2 State 6 & 7 Battery March 9, 2023



Liner Sample Point #3



Liner Sample Point #3-patched



Liner Sample Point #4-facing North



Liner Sample Point #4



Liner Sample Point #4-patched



Liner Sample Point #5

### Devon, Snapping 2 State 6 & 7 Battery March 9, 2023



Liner Sample Point #5-patched



Liner Sample Point #6 and #7



Liner Sample Point #6 and #7



Liner Sample Point #6 and #7-patched



Liner Sample Point #8

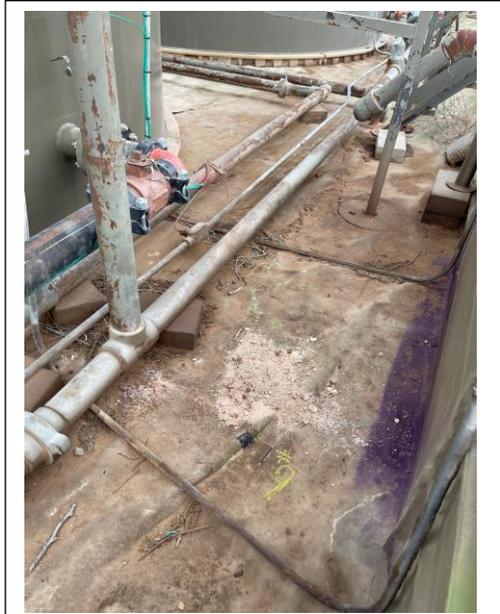


Liner Sample Point #8

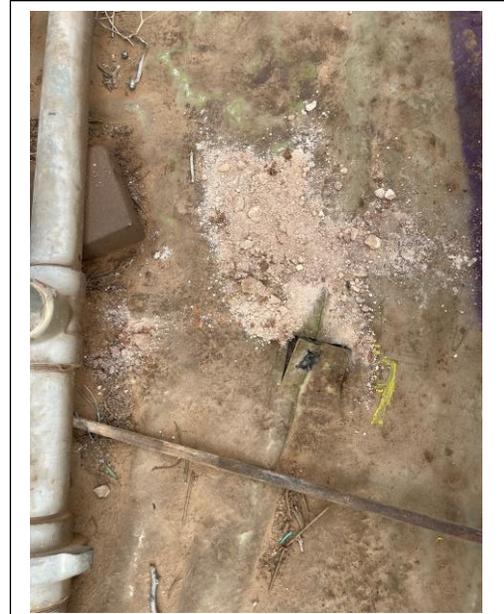
Devon, Snapping 2 State 6 & 7 Battery  
March 9, 2023



Liner Sample Point #8



Liner Sample Point #9



Liner Sample Point #9



Liner Sample Point #9-patched



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)

June 15, 2020

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

RE: Devon Snapping 2 State 6H 2RP 4193

OrderNo.: 2006321

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/5/2020 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2006321**

Date Reported: 6/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-10-H South Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 1:50:00 PM

**Lab ID:** 2006321-001

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	6/11/2020 2:58:23 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/7/2020 9:25:03 AM	52930
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/7/2020 9:25:03 AM	52930
Surr: DNOP	78.3	55.1-146		%Rec	1	6/7/2020 9:25:03 AM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2020 5:45:35 PM	52929
Surr: BFB	86.7	66.6-105		%Rec	1	6/8/2020 5:45:35 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 5:45:35 PM	52929
Toluene	ND	0.050		mg/Kg	1	6/8/2020 5:45:35 PM	52929
Ethylbenzene	ND	0.050		mg/Kg	1	6/8/2020 5:45:35 PM	52929
Xylenes, Total	ND	0.10		mg/Kg	1	6/8/2020 5:45:35 PM	52929
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/8/2020 5:45:35 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-11-H West Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 2:05:00 PM

**Lab ID:** 2006321-002

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	400	60		mg/Kg	20	6/11/2020 3:35:37 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/7/2020 10:37:57 AM	52930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/7/2020 10:37:57 AM	52930
Surr: DNOP	65.3	55.1-146		%Rec	1	6/7/2020 10:37:57 AM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2020 6:09:17 PM	52929
Surr: BFB	84.4	66.6-105		%Rec	1	6/8/2020 6:09:17 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 6:09:17 PM	52929
Toluene	ND	0.049		mg/Kg	1	6/8/2020 6:09:17 PM	52929
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2020 6:09:17 PM	52929
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2020 6:09:17 PM	52929
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/8/2020 6:09:17 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-12-H West Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 2:25:00 PM

**Lab ID:** 2006321-003

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	1300	60		mg/Kg	20	6/11/2020 5:39:40 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	6/7/2020 11:02:17 AM	52930
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/7/2020 11:02:17 AM	52930
Surr: DNOP	40.8	55.1-146	S	%Rec	1	6/7/2020 11:02:17 AM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2020 6:32:57 PM	52929
Surr: BFB	84.3	66.6-105		%Rec	1	6/8/2020 6:32:57 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 6:32:57 PM	52929
Toluene	ND	0.049		mg/Kg	1	6/8/2020 6:32:57 PM	52929
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2020 6:32:57 PM	52929
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2020 6:32:57 PM	52929
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/8/2020 6:32:57 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-13-H West Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 2:45:00 PM

**Lab ID:** 2006321-004

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	440	60		mg/Kg	20	6/11/2020 5:52:04 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/7/2020 11:26:45 AM	52930
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/7/2020 11:26:45 AM	52930
Surr: DNOP	64.1	55.1-146		%Rec	1	6/7/2020 11:26:45 AM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2020 6:56:38 PM	52929
Surr: BFB	86.0	66.6-105		%Rec	1	6/8/2020 6:56:38 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 6:56:38 PM	52929
Toluene	ND	0.050		mg/Kg	1	6/8/2020 6:56:38 PM	52929
Ethylbenzene	ND	0.050		mg/Kg	1	6/8/2020 6:56:38 PM	52929
Xylenes, Total	ND	0.099		mg/Kg	1	6/8/2020 6:56:38 PM	52929
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/8/2020 6:56:38 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-14-H West Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 3:00:00 PM

**Lab ID:** 2006321-005

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	380	60		mg/Kg	20	6/11/2020 6:04:29 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/7/2020 11:51:27 AM	52930
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/7/2020 11:51:27 AM	52930
Surr: DNOP	59.7	55.1-146		%Rec	1	6/7/2020 11:51:27 AM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2020 7:20:10 PM	52929
Surr: BFB	84.2	66.6-105		%Rec	1	6/8/2020 7:20:10 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 7:20:10 PM	52929
Toluene	ND	0.050		mg/Kg	1	6/8/2020 7:20:10 PM	52929
Ethylbenzene	ND	0.050		mg/Kg	1	6/8/2020 7:20:10 PM	52929
Xylenes, Total	ND	0.099		mg/Kg	1	6/8/2020 7:20:10 PM	52929
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/8/2020 7:20:10 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-15-H North Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 3:20:00 PM

**Lab ID:** 2006321-006

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	6/11/2020 6:41:43 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/12/2020 12:11:51 PM	53019
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/12/2020 12:11:51 PM	53019
Surr: DNOP	78.8	55.1-146		%Rec	1	6/12/2020 12:11:51 PM	53019
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/8/2020 7:43:38 PM	52929
Surr: BFB	86.6	66.6-105		%Rec	1	6/8/2020 7:43:38 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 7:43:38 PM	52929
Toluene	ND	0.050		mg/Kg	1	6/8/2020 7:43:38 PM	52929
Ethylbenzene	ND	0.050		mg/Kg	1	6/8/2020 7:43:38 PM	52929
Xylenes, Total	ND	0.10		mg/Kg	1	6/8/2020 7:43:38 PM	52929
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/8/2020 7:43:38 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-16-H East Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 3:35:00 PM

**Lab ID:** 2006321-007

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	380	60		mg/Kg	20	6/11/2020 4:12:50 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/7/2020 12:40:13 PM	52930
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/7/2020 12:40:13 PM	52930
Surr: DNOP	78.4	55.1-146		%Rec	1	6/7/2020 12:40:13 PM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2020 8:07:03 PM	52929
Surr: BFB	82.1	66.6-105		%Rec	1	6/8/2020 8:07:03 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 8:07:03 PM	52929
Toluene	ND	0.049		mg/Kg	1	6/8/2020 8:07:03 PM	52929
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2020 8:07:03 PM	52929
Xylenes, Total	ND	0.099		mg/Kg	1	6/8/2020 8:07:03 PM	52929
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/8/2020 8:07:03 PM	52929

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 **2006321**

Date Reported: 6/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-18-H East Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 4:00:00 PM

**Lab ID:** 2006321-008

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	2000	61		mg/Kg	20	6/11/2020 4:25:14 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/7/2020 1:04:40 PM	52930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/7/2020 1:04:40 PM	52930
Surr: DNOP	97.9	55.1-146		%Rec	1	6/7/2020 1:04:40 PM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2020 8:30:36 PM	52929
Surr: BFB	85.1	66.6-105		%Rec	1	6/8/2020 8:30:36 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/8/2020 8:30:36 PM	52929
Toluene	ND	0.049		mg/Kg	1	6/8/2020 8:30:36 PM	52929
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2020 8:30:36 PM	52929
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2020 8:30:36 PM	52929
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/8/2020 8:30:36 PM	52929

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 **2006321**

Date Reported: **6/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** AH-17-H East Surface

**Project:** Devon Snapping 2 State 6H 2RP 4193

**Collection Date:** 6/3/2020 3:45:00 PM

**Lab ID:** 2006321-009

**Matrix:** SOIL

**Received Date:** 6/5/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	430	60		mg/Kg	20	6/11/2020 4:37:39 PM	53020
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/7/2020 1:29:08 PM	52930
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/7/2020 1:29:08 PM	52930
Surr: DNOP	63.3	55.1-146		%Rec	1	6/7/2020 1:29:08 PM	52930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/8/2020 9:41:33 PM	52929
Surr: BFB	80.6	66.6-105		%Rec	1	6/8/2020 9:41:33 PM	52929
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	6/8/2020 9:41:33 PM	52929
Toluene	ND	0.049		mg/Kg	1	6/8/2020 9:41:33 PM	52929
Ethylbenzene	ND	0.049		mg/Kg	1	6/8/2020 9:41:33 PM	52929
Xylenes, Total	ND	0.098		mg/Kg	1	6/8/2020 9:41:33 PM	52929
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	6/8/2020 9:41:33 PM	52929

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#: 2006321

15-Jun-20

**Client:** Safety & Environmental Solutions  
**Project:** Devon Snapping 2 State 6H 2RP 4193

Sample ID: <b>MB-53020</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53020</b>	RunNo: <b>69566</b>								
Prep Date: <b>6/11/2020</b>	Analysis Date: <b>6/11/2020</b>	SeqNo: <b>2415362</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-53020</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53020</b>	RunNo: <b>69566</b>								
Prep Date: <b>6/11/2020</b>	Analysis Date: <b>6/11/2020</b>	SeqNo: <b>2415363</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	92.5	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#: 2006321

15-Jun-20

**Client:** Safety & Environmental Solutions  
**Project:** Devon Snapping 2 State 6H 2RP 4193

Sample ID: <b>MB-52930</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52930</b>	RunNo: <b>69453</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/7/2020</b>	SeqNo: <b>2409562</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		109	55.1	146			

Sample ID: <b>LCS-52930</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52930</b>	RunNo: <b>69453</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/7/2020</b>	SeqNo: <b>2409563</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	70	130			
Surr: DNOP	5.3		5.000		107	55.1	146			

Sample ID: <b>2006321-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>AH-10-H South Surf</b>	Batch ID: <b>52930</b>	RunNo: <b>69453</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/7/2020</b>	SeqNo: <b>2409565</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	29	9.6	48.03	0	59.6	47.4	136			
Surr: DNOP	2.5		4.803		51.7	55.1	146			S

Sample ID: <b>2006321-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>AH-10-H South Surf</b>	Batch ID: <b>52930</b>	RunNo: <b>69453</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/7/2020</b>	SeqNo: <b>2409566</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	9.7	48.54	0	64.6	47.4	136	9.06	43.4	
Surr: DNOP	2.5		4.854		51.7	55.1	146	0	0	S

Sample ID: <b>LCS-53019</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53019</b>	RunNo: <b>69585</b>								
Prep Date: <b>6/11/2020</b>	Analysis Date: <b>6/12/2020</b>	SeqNo: <b>2415665</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	70	130			
Surr: DNOP	5.2		5.000		104	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#: 2006321

15-Jun-20

**Client:** Safety & Environmental Solutions  
**Project:** Devon Snapping 2 State 6H 2RP 4193

Sample ID: <b>MB-53019</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53019</b>	RunNo: <b>69585</b>								
Prep Date: <b>6/11/2020</b>	Analysis Date: <b>6/12/2020</b>	SeqNo: <b>2415666</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		127	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#: 2006321

15-Jun-20

**Client:** Safety & Environmental Solutions  
**Project:** Devon Snapping 2 State 6H 2RP 4193

Sample ID: <b>mb-52929</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>52929</b>		RunNo: <b>69482</b>							
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/8/2020</b>		SeqNo: <b>2410769</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	860		1000		86.5	66.6	105			

Sample ID: <b>lcs-52929</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>52929</b>		RunNo: <b>69482</b>							
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/8/2020</b>		SeqNo: <b>2410770</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	88.6	80	120			
Surr: BFB	950		1000		95.3	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#: 2006321

15-Jun-20

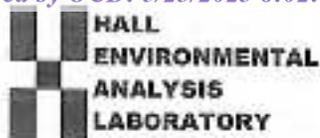
**Client:** Safety & Environmental Solutions  
**Project:** Devon Snapping 2 State 6H 2RP 4193

Sample ID: <b>mb-52929</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52929</b>	RunNo: <b>69482</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/8/2020</b>	SeqNo: <b>2410800</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		104	80	120			

Sample ID: <b>LCS-52929</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52929</b>	RunNo: <b>69482</b>								
Prep Date: <b>6/6/2020</b>	Analysis Date: <b>6/8/2020</b>	SeqNo: <b>2410801</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	93.6	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	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 Hankins NE  
Albuquerque, NM 87195  
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: 2006321      RptNo: 1

Received By: Juan Rojas      6/5/2020 9:30:00 AM      *[Signature]*  
Completed By: Desiree Dominguez      6/5/2020 11:06:25 AM      *[Signature]*  
Reviewed By: *SR 6/5/20*

#### 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° C to 6.0° C      Yes       No       NA
- 5. Sample(s) in proper container(s)?      Yes       No
- 6. Sufficient sample volume for indicated test(s)?      Yes       No
- 7. Are samples (except VOA and ONG) properly preserved?      Yes       No
- 8. Was preservative added to bottles?      Yes       No       NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA?      Yes       No       NA
- 10. Were any sample containers received broken?      Yes       No
- 11. Does paperwork match bottle labels?      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 *SR 6/5/20*

#### Special Handling (if applicable)

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

#### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good	Not Present			
2	0.4	Good	Not Present			

### Chain-of-Custody Record

Client: Safety & Environmental Solutions  
 Mailing Address: 703 E. Clinton  
Abilene, TX 79240  
 Phone #: 575-397-0570

email or Fax#: \_\_\_\_\_  
 QA/QC Package: \_\_\_\_\_  
 L1 Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  
 NELAC  Other  
 EDD (Type) \_\_\_\_\_

Turn-Around Time:  Standard  Rush  
 Project Name: Devon Sipping 2 State Cont  
2006-4193  
 Project #: Dev-19-004

Project Manager: Atten, Bob  
 Sampler: Sgt. Gray  
 On Ice:  Yes  No  
 # of Coolers: 2 31 6/5/20  
 Cooler Temperature: 2.9-0.5-2.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
06/03	1350	S	AH-10-H SUFFINE	1	Free	0470-014
	1405	S	AH-11-H SUFFINE	1		2006321
	1425	S	AH-12-H SUFFINE	1		-001
	1445	S	AH-13-H SUFFINE	1		-002
	1500	S	AH-14-H SUFFINE	1		-003
	1520	S	AH-15-H SUFFINE	1		-004
	1535	S	AH-16-H SUFFINE	1		-005
	1600	S	AH-18-H SUFFINE	1		-006
06/03	1545	S	AH-17-H SUFFINE	1		-007
						-008
						-009
						000 6/5/20

Date: 06/04 0800 Relinquished by: Sgt. Gray Date Time: 6/4/20 0800  
 Date: 06/20 1400 Relinquished by: [Signature] Date Time: 6/20 1430

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

Analysis Request	
<input checked="" type="checkbox"/>	BTEX / MTBE / TMB's (8021)
<input checked="" type="checkbox"/>	TPH:8015D(GRC / DRO / MRO)
	8061 Pesticides/8082 PCB's
	EDB (Method 504.1)
	PAHs by 8310 or 8270SIMS
	RCRA 8 Metals
	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>
	8260 (VOA)
	8270 (Semi-VOA)
	Total Coliform (Present/Absent)

Remarks: Bill Devon



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)

March 23, 2023

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

RE: Snapping 2 State 6 7H

OrderNo.: 2303643

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 15 sample(s) on 3/11/2023 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2303643**

Date Reported: 3/23/2023

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP 8

**Project:** Snapping 2 State 6 7H

**Collection Date:** 3/9/2023 8:45:00 AM

**Lab ID:** 2303643-001

**Matrix:** SOIL

**Received Date:** 3/11/2023 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SNS</b>
Chloride	100	60		mg/Kg	20	3/16/2023 11:46:13 PM	73766
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>PRD</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/16/2023 2:49:48 PM	73710
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/16/2023 2:49:48 PM	73710
Surr: DNOP	134	69-147		%Rec	1	3/16/2023 2:49:48 PM	73710
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/17/2023 10:51:00 PM	73686
Surr: BFB	86.5	37.7-212		%Rec	1	3/17/2023 10:51:00 PM	73686
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	3/17/2023 10:51:00 PM	73686
Toluene	ND	0.048		mg/Kg	1	3/17/2023 10:51:00 PM	73686
Ethylbenzene	ND	0.048		mg/Kg	1	3/17/2023 10:51:00 PM	73686
Xylenes, Total	ND	0.096		mg/Kg	1	3/17/2023 10:51:00 PM	73686
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	3/17/2023 10:51:00 PM	73686

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	Above Quantitation Range/Estimated Value
	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 standard limits. If undiluted results may be estimated.		

**Analytical Report**

Lab Order **2303643**

Date Reported: 3/23/2023

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP 9

**Project:** Snapping 2 State 6 7H

**Collection Date:** 3/9/2023 9:00:00 AM

**Lab ID:** 2303643-002

**Matrix:** SOIL

**Received Date:** 3/11/2023 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SNS</b>
Chloride	ND	60		mg/Kg	20	3/16/2023 11:58:34 PM	73766
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>DGH</b>
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	3/15/2023 9:53:47 PM	73712
Motor Oil Range Organics (MRO)	51	47		mg/Kg	1	3/15/2023 9:53:47 PM	73712
Surr: DNOP	102	69-147		%Rec	1	3/15/2023 9:53:47 PM	73712
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/15/2023 11:56:51 AM	73702
Surr: BFB	108	37.7-212		%Rec	1	3/15/2023 11:56:51 AM	73702
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JJP</b>
Benzene	ND	0.025		mg/Kg	1	3/15/2023 11:56:51 AM	73702
Toluene	ND	0.049		mg/Kg	1	3/15/2023 11:56:51 AM	73702
Ethylbenzene	ND	0.049		mg/Kg	1	3/15/2023 11:56:51 AM	73702
Xylenes, Total	ND	0.099		mg/Kg	1	3/15/2023 11:56:51 AM	73702
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	3/15/2023 11:56:51 AM	73702

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	Above Quantitation Range/Estimated Value
	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 standard limits. If undiluted results may be estimated.		

**Analytical Report**

Lab Order **2303643**

Date Reported: 3/23/2023

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP 10

**Project:** Snapping 2 State 6 7H

**Collection Date:** 3/9/2023 9:15:00 AM

**Lab ID:** 2303643-003

**Matrix:** SOIL

**Received Date:** 3/11/2023 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SNS</b>
Chloride	ND	60		mg/Kg	20	3/17/2023 12:10:55 AM	73766
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>DGH</b>
Diesel Range Organics (DRO)	25	9.2		mg/Kg	1	3/15/2023 10:04:20 PM	73712
Motor Oil Range Organics (MRO)	82	46		mg/Kg	1	3/15/2023 10:04:20 PM	73712
Surr: DNOP	119	69-147		%Rec	1	3/15/2023 10:04:20 PM	73712
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/15/2023 12:20:28 PM	73702
Surr: BFB	111	37.7-212		%Rec	1	3/15/2023 12:20:28 PM	73702
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JJP</b>
Benzene	ND	0.023		mg/Kg	1	3/15/2023 12:20:28 PM	73702
Toluene	ND	0.046		mg/Kg	1	3/15/2023 12:20:28 PM	73702
Ethylbenzene	ND	0.046		mg/Kg	1	3/15/2023 12:20:28 PM	73702
Xylenes, Total	ND	0.093		mg/Kg	1	3/15/2023 12:20:28 PM	73702
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	3/15/2023 12:20:28 PM	73702

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	Above Quantitation Range/Estimated Value
	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 standard limits. If undiluted results may be estimated.		

**Analytical Report**

Lab Order **2303643**

Date Reported: 3/23/2023

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP 11

**Project:** Snapping 2 State 6 7H

**Collection Date:** 3/9/2023 9:30:00 AM

**Lab ID:** 2303643-004

**Matrix:** SOIL

**Received Date:** 3/11/2023 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SNS</b>
Chloride	ND	60		mg/Kg	20	3/17/2023 12:23:16 AM	73766
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>DGH</b>
Diesel Range Organics (DRO)	16	9.0		mg/Kg	1	3/15/2023 10:14:52 PM	73712
Motor Oil Range Organics (MRO)	64	45		mg/Kg	1	3/15/2023 10:14:52 PM	73712
Surr: DNOP	124	69-147		%Rec	1	3/15/2023 10:14:52 PM	73712
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/15/2023 12:43:59 PM	73702
Surr: BFB	109	37.7-212		%Rec	1	3/15/2023 12:43:59 PM	73702
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JJP</b>
Benzene	ND	0.024		mg/Kg	1	3/15/2023 12:43:59 PM	73702
Toluene	ND	0.048		mg/Kg	1	3/15/2023 12:43:59 PM	73702
Ethylbenzene	ND	0.048		mg/Kg	1	3/15/2023 12:43:59 PM	73702
Xylenes, Total	ND	0.096		mg/Kg	1	3/15/2023 12:43:59 PM	73702
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	3/15/2023 12:43:59 PM	73702

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	Above Quantitation Range/Estimated Value
	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 standard limits. If undiluted results may be estimated.		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>MB-73766</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73766</b>	RunNo: <b>95346</b>								
Prep Date: <b>3/16/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3448802</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-73766</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73766</b>	RunNo: <b>95346</b>								
Prep Date: <b>3/16/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3448803</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	94.1	90	110			

Sample ID: <b>MB-73774</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73774</b>	RunNo: <b>95364</b>								
Prep Date: <b>3/17/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3449696</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-73774</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73774</b>	RunNo: <b>95364</b>								
Prep Date: <b>3/17/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3449697</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			

**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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>LCS-73712</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73712</b>	RunNo: <b>95288</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>	SeqNo: <b>3446997</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.7	61.9	130			
Surr: DNOP	4.7		5.000		93.8	69	147			

Sample ID: <b>MB-73712</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73712</b>	RunNo: <b>95288</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>	SeqNo: <b>3446998</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		125	69	147			

Sample ID: <b>MB-73710</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73710</b>	RunNo: <b>95279</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3447687</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	9.6		10.00		95.9	69	147			

Sample ID: <b>LCS-73710</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73710</b>	RunNo: <b>95279</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3447688</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	10	50.00	0	100	61.9	130			
Surr: DNOP	4.7		5.000		94.9	69	147			

Sample ID: <b>MB-73763</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73763</b>	RunNo: <b>95369</b>								
Prep Date: <b>3/16/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3450324</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	9.0		10.00		89.9	69	147			

**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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>LCS-73763</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73763</b>	RunNo: <b>95369</b>								
Prep Date: <b>3/16/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3450325</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.0	61.9	130			
Surr: DNOP	4.4		5.000		87.4	69	147			

**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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>ics-73702</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73702</b>	RunNo: <b>95278</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>	SeqNo: <b>3446038</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.6	70	130			
Surr: BFB	1800		1000		183	37.7	212			

Sample ID: <b>mb-73702</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73702</b>	RunNo: <b>95278</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>	SeqNo: <b>3446039</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	1100		1000		106	37.7	212			

Sample ID: <b>ics-73714</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73714</b>	RunNo: <b>95315</b>								
Prep Date: <b>3/15/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3447482</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1900		1000		190	37.7	212			

Sample ID: <b>mb-73714</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73714</b>	RunNo: <b>95315</b>								
Prep Date: <b>3/15/2023</b>	Analysis Date: <b>3/16/2023</b>	SeqNo: <b>3447483</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		106	37.7	212			

Sample ID: <b>ics-73686</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>73686</b>	RunNo: <b>95373</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3449976</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.1	70	130			
Surr: BFB	1900		1000		186	37.7	212			

Sample ID: <b>mb-73686</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>73686</b>	RunNo: <b>95373</b>								
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/17/2023</b>	SeqNo: <b>3449977</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	920		1000		92.2	37.7	212			

**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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>LCS-73702</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>73702</b>		RunNo: <b>95278</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>		SeqNo: <b>3446063</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.4	80	120			
Toluene	0.91	0.050	1.000	0	90.8	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.6	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			

Sample ID: <b>mb-73702</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>73702</b>		RunNo: <b>95278</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>		SeqNo: <b>3446064</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		101	70	130			

Sample ID: <b>2303643-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SP 9</b>	Batch ID: <b>73702</b>		RunNo: <b>95278</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>		SeqNo: <b>3446680</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.099	0.9872	0	105	61.5	113			
Benzene	1.0	0.025	0.9872	0	105	68.8	120			
Toluene	1.0	0.049	0.9872	0	105	73.6	124			
Ethylbenzene	1.0	0.049	0.9872	0	106	72.7	129			
Xylenes, Total	3.1	0.099	2.962	0	105	75.7	126			
Surr: 4-Bromofluorobenzene	1.0		0.9872		104	70	130			

Sample ID: <b>2303643-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SP 9</b>	Batch ID: <b>73702</b>		RunNo: <b>95278</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/15/2023</b>		SeqNo: <b>3446681</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9862	0	110	68.8	120	4.53	20	
Toluene	1.1	0.049	0.9862	0	110	73.6	124	4.64	20	
Ethylbenzene	1.1	0.049	0.9862	0	110	72.7	129	4.09	20	
Xylenes, Total	3.3	0.099	2.959	0	110	75.7	126	4.30	20	
Surr: 4-Bromofluorobenzene	1.0		0.9862		106	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2303643

23-Mar-23

**Client:** Safety & Environmental Solutions

**Project:** Snapping 2 State 6 7H

Sample ID: <b>ics-73686</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>73686</b>		RunNo: <b>95373</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/17/2023</b>		SeqNo: <b>3450049</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.4	80	120			
Toluene	0.87	0.050	1.000	0	86.9	80	120			
Ethylbenzene	0.85	0.050	1.000	0	85.2	80	120			
Xylenes, Total	2.5	0.10	3.000	0	84.8	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	70	130			

Sample ID: <b>mb-73686</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>73686</b>		RunNo: <b>95373</b>							
Prep Date: <b>3/14/2023</b>	Analysis Date: <b>3/17/2023</b>		SeqNo: <b>3450050</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	0.92		1.000		92.1	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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions

Work Order Number: 2303643

RcptNo: 1

Received By: Cheyenne Cason 3/11/2023 10:00:00 AM

Handwritten signature

Completed By: Cheyenne Cason 3/11/2023 10:14:59 AM

Handwritten signature

Reviewed By: KPC 3.13.23

Chain of Custody

1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]

4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]

5. Sample(s) in proper container(s)? Yes [checked] No [ ]

6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]

7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]

8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [ ] No [ ] NA [checked]

10. Were any sample containers received broken? Yes [ ] No [checked]

11. Does paperwork match bottle labels? Yes [checked] No [ ]

12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]

13. Is it clear what analyses were requested? Yes [checked] No [ ]

14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: JN 3/13/23

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.6, Good, Not Present, Yogi



### Chain-of-Custody Record

Client: SEST  
 Mailing Address: 703 E Clinton  
Hobbs, NM 88240  
 Phone #: 575-397-0510

email or Fax#: \_\_\_\_\_  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  AZ Compliance  
 NELAC  Other  
 EDD (Type) \_\_\_\_\_

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
03/09	1225	Soil	liner # 7 Surface	( Soil		2303643
03/09	1300	Soil	liner # 8 Surface	( Soil		014
03/09	1330	Soil	liner # 9 Surface	( Soil		015

Date: 03/10 Time: 1900 Relinquished by: [Signature]  
 Date: 3/10/23 Time: 1900 Relinquished by: [Signature]

Turn-Around Time:  
 Standard  Rush 5 DAY  
 Project Name: Snapping Z state 6H#7H  
 Project #: DEV 19004

Project Manager:  
Bob Allen  
 Sampler: Sergio Contreras  
 On Ice:  Yes  No Yog  
 # of Coolers: 1  
 Cooler Temp (including CF) 0.4 + 0.250.6 (°C)

TPH:8015D(GRO / DRO / MRO)	BTEX / MTBE / TMB's (8021)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X								<u>Chloride</u>
X	X								
X	X								

Received by: [Signature] Date: 3/10/23 Time: 0900  
 Received by: [Signature] Date: 3/11/23 Time: 1000

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

#### Analysis Request

TPH:8015D(GRO / DRO / MRO)	BTEX / MTBE / TMB's (8021)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X								<u>Chloride</u>
X	X								
X	X								

Remarks:

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

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

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
Form C-141  
Revised April 3, 2017  
JAN 12 2018  
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.  
**RECEIVED**

**Release Notification and Corrective Action Initial Only**

**NAB1801849148**

**OPERATOR**  Initial Report  Final Report

Name of Company <b>Devon Energy Production Company 1137</b>	Contact <b>Wesley Ryan, Production Foreman</b>
Address <b>6488 Seven Rivers Hwy Artesia, NM 88210</b>	Telephone No. <b>575-390-5436</b>
Facility Name <b>Snapping 2 State 6H</b>	Facility Type <b>Oil</b>

Surface Owner State	Mineral Owner State	API No. <b>30-015-39162</b>
---------------------	---------------------	-----------------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	2	26S	31E					Eddy

Latitude 32.06616 Longitude 103.74848 NAD83

**NATURE OF RELEASE**

Type of Release <b>Produced Water</b>	Volume of Release <b>52bbbs</b>	Volume Recovered <b>52bbbs</b>
Source of Release <b>Produced water tank</b>	Date and Hour of Occurrence <b>December 31, 2017 @ 11:00 PM MST</b>	Date and Hour of Discovery <b>December 31, 2017 @ 11:00 PM MST</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Mike Bratcher, OCD Crystal Weaver, OCD</b>	
By Whom? <b>Brett Fulks, EHS Professional</b>	Date and Hour <b>January 1, 2018 @ 10:57 PM MST</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>While working on the compressor the lease operator heard a loud noise and discovered that one of the fiberglass produced water tanks had ruptured. The wells were immediately shut in and the water tank was isolated.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Approximately 52bbbs of produced water was released into the lined SPCC secondary containment ring. Approximately 52bbbs of produced water was recovered by the dispatched vacuum truck from the lined containment. All fluid stayed inside the lined SPCC containment. Once fluids were removed the liner was visually inspected by Devon field staff for any pinholes or punctures and none were found. Based on this inspection there is no evidence that the spill fluids left containment.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

Signature: <i>Sheila Fisher</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Sheila Fisher	Approved by Environmental Specialist: <i>Crystal W</i>	
Title: Field Admin Support	Approval Date: <b>1/16/18</b>	Expiration Date: <b>N/A</b>
E-mail Address: Sheila.Fisher@dvn.com	Conditions of Approval: <i>see attached</i>	Attached <input checked="" type="checkbox"/> <b>ARD.456A</b>
Date: 1/4/18 Phone: 575.748.1829		

\* Attach Additional Sheets If Necessary

**1/16/18 AB**

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **1/12/18** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number ARP-4509 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 2/12/18. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us

## Weaver, Crystal, EMNRD

---

**From:** Weaver, Crystal, EMNRD  
**Sent:** Friday, January 12, 2018 12:52 PM  
**To:** 'Fisher, Sheila'; Bratcher, Mike, EMNRD; Honea, Tammy  
**Cc:** Shoemaker, Mike; Fulks, Brett; Carter, Ray; West, Christopher; Ryan, Wesley  
**Subject:** RE: Snapping 2 State 6H\_52bbbs pw\_12.31.17

Hello all,

Same will go for this Initial/Final C-141 form as I had mentioned would happen with the others I sent you all an email on this morning.

OCD has decided to now to mark any Initial/Final C-141 that comes in, and is for a release that total volume recovery is stated to have occurred due to having secondary containment that was said to have contained all fluids, as an Initial C-141 only and upon receipt of the requested pictures and statements a Final C-141 can be submitted and then reviewed for processing of closure of said release case.

Thank you,

### Crystal Weaver

Environmental Specialist  
OCD – Artesia District II  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210  
Office: 575-748-1283 ext. 101  
Cell: 575-840-5963  
Fax: 575-748-9720

**From:** Fisher, Sheila [mailto:Sheila.Fisher@dvn.com]  
**Sent:** Friday, January 12, 2018 6:37 AM  
**To:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Honea, Tammy <thonea@slo.state.nm.us>  
**Cc:** Shoemaker, Mike <Mike.Shoemaker@dvn.com>; Fulks, Brett <Brett.Fulks@dvn.com>; Carter, Ray <Ray.Carter@dvn.com>; West, Christopher <Christopher.West@dvn.com>; Ryan, Wesley <Wesley.Ryan@dvn.com>  
**Subject:** Snapping 2 State 6H\_52bbbs pw\_12.31.17

Good Morning,

Attached please find the Initial & Final C-141 and GIS Image for the 52bbl produced water release at the Snapping 2 State 6H on 12.31.17.

If you have any questions please feel free to contact me.

## Weaver, Crystal, EMNRD

---

**From:** Fisher, Sheila <Sheila.Fisher@dvn.com>  
**Sent:** Friday, January 12, 2018 6:37 AM  
**To:** Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Honea, Tammy  
**Cc:** Shoemaker, Mike; Fulks, Brett; Carter, Ray; West, Christopher; Ryan, Wesley  
**Subject:** Snapping 2 State 6H\_52bbbs pw\_12.31.17  
**Attachments:** Snapping 2 State 6H\_52bbbs pw\_Initial & Final C-141\_12.31.17.doc; Snapping 2 State 6H\_52bbbs pw\_GIS Image\_12.31.17.pdf

Good Morning,

Attached please find the Initial & Final C-141 and GIS Image for the 52bbbl produced water release at the Snapping 2 State 6H on 12.31.17.

If you have any questions please feel free to contact me.

Thank you,

*Sheila Fisher*  
Field Admin Support  
Production  
B-Schedule

**Devon Energy Corporation**  
PO Box 250  
Artesia, NM 88211  
575 748 1829 Direct



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

**Bratcher, Mike, EMNRD**

---

**From:** Fulks, Brett <Brett.Fulks@dvn.com>  
**Sent:** Monday, January 1, 2018 10:57 PM  
**To:** Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD  
**Cc:** Shoemaker, Mike; Nettles, Matt  
**Subject:** Release Notification for Snapping 2 State 6H (API# 30-025-32398)

Mike/Heather,

Devon had the following release occur at approximately 11:00 PM MST on 12/31/17. The incident is described below.

1. Snapping 2 State 6H(API #30-015-39162):  
While working on the compressor at the Snapping 2 State 6H, the lease operator heard a loud noise and discovered that one of the fiberglass produced water tanks had ruptured, releasing approximately 52 bbls of produced water into lined secondary containment, all of which was recovered.

A C-141 will be prepared and submitted.

Thanks,

**Brett Fulks**  
EHS Representative

**Devon Energy Corporation**  
6488 Seven Rivers Highway  
Artesia, New Mexico 88210  
575 748 1844 Direct  
432 301 3223 Mobile



**Confidentiality Warning:** This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input 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 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 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 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 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 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 type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input 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	
District RP	
Facility ID	
Application ID	

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Dale Woodall Date: 5/23/2023

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: Dale Woodall Date: 5/23/2023  
 email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Dale Woodall Date: 5/23/2023

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**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 219595

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 219595
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAB1801849148 SNAPPING 2 STATE #006H, thank you. This closure is approved.	10/16/2023