

Incident ID	nAB1616740309
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: Dale Woodall Title: Env. Professional
 Signature: *Dale Woodall* Date: 3/15/2023
 email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: *Ashley Maxwell* Date: 3/16/2023
 Printed Name: Ashley Maxwell Title: Environmental Specialist

Per the email from Mike Bratcher included in the report, a deferral was approved. Incident NAB1616740309 is to remain open and will need to be addressed upon plug and abandonment activities. This release is subject to 19.15.29.13 NMAC Restoration, Reclamation, and Revegetation

Devon Energy Production Company
Remuda Basin SWD 1

Closure Report
UL D, Section 20, T23S, R30E
Eddy County, New Mexico

NAB1616740309
NRM2014561795

July 22, 2021
Revised March 13, 2023



Prepared for:

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

By:

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

Company Contacts

Representative	Company	Telephone	E-mail
Wesley Mathews	Devon Energy	575-578-6195	Wesley.Mathews@dvn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

Background

The Remuda Basin SWD 1 has two open incidents. Talon LPE had performed a delineation assessment and filed a work plan dated January 24, 2017 with the NMOCD (See Exhibit A). This work plan proposed that, based upon the sampling and the abundance of buried lines on the pad, the impacted area on the well pad in the vicinity of sample locations S-1 through S-3 will be excavated to a depth 0.5-bgs. The excavation will be backfilled with caliche. The remaining chloride impacts will be remediated at the closure of the facility, per NMOCD and BLM guidance on 2RP-2195. The NMOCD approved this work plan on January 25, 2017 (See Exhibit B), and Mr. Jim Amos of the BLM, in an email on February 17, 2021, stated he wanted to use this plan. (See Exhibit C) The approved work plan submitted by Talon LPE was followed during the remediation of this site by SESI.

NRM2014561795

Safety and Environmental Solutions, Inc., (SESI) was engaged by Devon Energy to perform a site assessment at the Remuda Basin SWD 1 location concerning an approximate 12.82 bbls produced water release. According to the C-141, mechanical error in the triplex pump that broke 3 bolts causing the release. Zero barrels of fluid were recovered. This site is situated in Eddy County, Section 20, Township 23S, and Range 30E.

This incident (NRM2014561795) was paired with a previous release (NAB1616740309) and remediated concurrently.

NAB1616740309

6/12/2016 – Injection pump failure failed to engage, and alarms were not activated, as a result, 500 bbls of produced water overflowed the tanks and flowed on the pad and the adjacent pasture. 480 bbls was recovered. There was a previously submitted and approved WP for this incident number and will be referenced within this report.

SESI personnel performed an assessment in March of 2020 based on generator knowledge of the leak location. SESI personnel mapped the leak and performed delineation. The results of the delineation of the area are very similar to the results of the Talon delineation set forth in their work plan dated January 24, 2017/

Surface and Ground Water

Based on the NMOCD Oil and Gas map included in this report, surface water is not present within 3,000 feet of this release. The New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be between 438' and 440' bgs; however, since no wells less than 25 years old and less than a half mile away are known to be present, SESI will delineate this release to the most stringent criteria established by NMOCD.

Characterization - NRM2014561795

In April 2020, SESI personnel performed sampling to determine vertical extent of the release. SESI advanced 7 auger holes within the leak area. The samples were properly packaged and preserved and sent to Hall Laboratories for analysis. The results of the testing are captured in the summary below:

Devon Energy Remuda Basin SWD 1 Soil Sample Results: Hall Environmental Laboratories 4/10/20								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
AH-1 SURFACE	21000	ND	ND	ND	-	-	-	-
AH-1 1'	18000	ND	ND	ND	-	-	-	-
AH-2 SURFACE	22000	ND	ND	ND	-	-	-	-
AH-2 1'	16000	ND	ND	ND	-	-	-	-
AH-2 2'	17000	ND	ND	ND	-	-	-	-
AH-3 SURFACE	8800	ND	ND	ND	-	-	-	-
AH-3 1'	17000	ND	ND	ND	-	-	-	-
AH-4 SURFACE	14000	ND	ND	ND	-	-	-	-
AH-4 1'	2000	ND	ND	ND	-	-	-	-
AH-5 SURFACE	9000	ND	ND	ND	-	-	-	-
AH-6 SURFACE	6700	ND	ND	ND	-	-	-	-
AH-7 SURFACE	12000	ND	41	87	-	-	-	-

These initial results lead to a broader investigation of the site and resulted in the understanding of the larger release in 2016 (NAB1616740309). This broader investigation resulted in test trenches and auger holes to establish horizontal extent on the pad. Additional sampling was conducted off the pad and will be presented later.

Devon Energy Remuda Basin SWD 1 Soil Sample Results: Hall Environmental Laboratories Lab ID 2007501-001: Collection Date-06/26/2020								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
TT-1 2'	2200	-	-	-	-	-	-	-
TT-2 2'	9300	-	-	-	-	-	-	-
TT-3 2'	15000	-	-	-	-	-	-	-
TT-4 2'	16000	-	-	-	-	-	-	-
TT-8 SURFACE	37000	-	-	-	-	-	-	-
TT-8 1'	9700	-	-	-	-	-	-	-
TT-8 2'	7500	-	-	-	-	-	-	-
TT-9 SURFACE	51000	-	-	-	-	-	-	-
TT-9 1'	5400	-	-	-	-	-	-	-
TT-9 2'	4700	-	-	-	-	-	-	-
TT-1 SURFACE	45000	-	-	-	-	-	-	-
TT-10 1'	6300	-	-	-	-	-	-	-
TT-10 2'	3100	-	-	-	-	-	-	-
TT-11 SURFACE	21000	-	-	-	-	-	-	-
TT-11 1'	3000	-	-	-	-	-	-	-
TT-12 SURFACE	25000	-	-	-	-	-	-	-
TT-12 1'	8300	-	-	-	-	-	-	-
TT-13 SURFACE	15000	-	-	-	-	-	-	-
TT-13 1'	4300	-	-	-	-	-	-	-

Devon Energy Remuda Basin SWD 1 Soil Sample Results: Hall Environmental Laboratories Lab ID 2007501-001: Collection Date-06/26/2020								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
TT-13 2'	6900	-	-	-	-	-	-	-
TT-14 SURFACE	3900	-	-	-	-	-	-	-
TT-14 1'	8800	-	-	-	-	-	-	-

Devon Energy Remuda Basin SWD 1 Horizontal Soil Sample Results: Hall Environmental Laboratories Lab ID 2007503-001: Collection Date-06/29/2020								
SAMPLE ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
H-NW AH-15	ND	-	-	-	-	-	-	-
H-N AH-16	140	-	-	-	-	-	-	-
H-N AH-17	ND	-	-	-	-	-	-	-
H-NE AH-18	92	-	-	-	-	-	-	-
H-SE AH-19	94	-	-	-	-	-	-	-
H-S AH-20	250	-	-	-	-	-	-	-
H-S AH-21	250	-	-	-	-	-	-	-
H-SW AH-22	280	-	-	-	-	-	-	-

Remediation

Based on the results of the delineation, SESI, determined the best course of action is to excavate the contaminated soil to a depth of 1.5 to 3 feet as practicable. This is also the point where sampling and confirmation analysis was combined for both incident numbers. Over the next year, into April of 2021, excavation of the pad location, and the off-pad area that was affected occurred. Field testing continued to guide the remediation efforts to establish soil that met target limits. In April of 2021, confirmation samples were obtained during different sampling events to conclude the excavation. The samples were properly preserved and packaged then sent to Hall Laboratories for analysis. The results of the sampling is captured in the table below.

Devon Energy Remuda Basin SWD 1 - Soil Sample Results: Hall Environmental Laboratories Lab ID 2104533-004: Collection Date-04/08/2021								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
SP-1 BTM 6"	160	ND	ND	ND	ND	ND	ND	ND
SP-2 EAST WALL	280	ND	ND	ND	ND	ND	ND	ND
SP-3 BTM 6"	150	ND	ND	ND	ND	ND	ND	ND
SP-4 EAST WALL	180	ND	ND	ND	ND	ND	ND	ND
SP-5 BTM 6"	3200	ND	20	67	ND	ND	ND	ND
SP-6 SOUTH WALL	290	ND	ND	ND	ND	ND	ND	ND
SP-7 BTM 6"	3100	ND	21	69	ND	ND	ND	ND
SP-8 BTM 6"	960	ND	ND	ND	ND	ND	ND	ND

Lab ID 2104531-004: Collection Date-04/09/2021

Devon Energy Remuda Basin SWD 1 - Soil Sample Results: Hall Environmental Laboratories								
Lab ID 2104533-004: Collection Date-04/08/2021								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
SP-9 SOUTH WALL	290	ND	ND	ND	ND	ND	ND	ND
SP-10 SOUTH WALL	310	ND	ND	ND	ND	ND	ND	ND
SP-11 BTM 6"	990	ND	ND	ND	ND	ND	ND	ND
SP-12 BTM 6"	940	ND	ND	ND	ND	ND	ND	ND
Lab ID: 2104743-001 Collection Date-04/12/2021								
SP-13 NORTH WALL	120	ND	ND	ND	ND	ND	ND	ND
SP-14 BTM 6"	1200	ND	ND	ND	ND	ND	ND	ND
SP-15 NORTH WALL	100	ND	ND	ND	ND	ND	ND	ND
SP-16 BTM 6"	1400	ND	ND	ND	ND	ND	ND	ND
SP-17 SOUTH WALL	310	ND	ND	ND	ND	ND	ND	ND
SP-18 SOUTH WALL	120	ND	ND	ND	ND	ND	ND	ND
SP-19 BTM 6"	460	ND	ND	ND	ND	ND	ND	ND
Lab ID 2104742-001: Collection Date-04/13/2021								
SP-20 BTM 6"	1300	ND	ND	ND	ND	ND	ND	ND
SP-21 NORTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-22 BTM 6"	1400	ND	ND	ND	ND	ND	ND	ND
SP-23 NORTH WALL	120	ND	ND	ND	ND	ND	ND	ND
SP-24 BTM 6"	1300	ND	ND	ND	ND	ND	ND	ND
SP-25 EAST WALL	110	ND	ND	ND	ND	ND	ND	ND
SP-26 BTM 6"	1300	ND	ND	ND	ND	ND	ND	ND
SP-27 SOUTH WALL	110	ND	ND	ND	ND	ND	ND	ND
Lab ID 2104A77-001: Collection Date-04/22/2021								
SP-28 NORTH WALL	230	ND	ND	ND	ND	ND	ND	ND
SP-29 SOUTH WALL	230	ND	ND	ND	ND	ND	ND	ND
SP-30 EAST WALL	230	ND	ND	ND	ND	ND	ND	ND
SP-31 NORTH WALL	69	ND	ND	ND	ND	ND	ND	ND
SP-32 NORTH WALL	73	ND	ND	ND	ND	ND	ND	ND
SP-33 SOUTH WALL	71	ND	ND	ND	ND	ND	ND	ND
SP-34 SOUTH WALL	65	ND	ND	ND	ND	ND	ND	ND
SP-35 NORTH WALL	67	ND	ND	ND	ND	ND	ND	ND
SP-36 NORTH WALL	240	ND	ND	ND	ND	ND	ND	ND
SP-37 SOUTH WALL	66	ND	ND	ND	ND	ND	ND	ND
SP-38 BTM 2.5'	440	ND	ND	ND	ND	ND	ND	ND
SP-39 BTM 2.5'	440	ND	ND	ND	ND	ND	ND	ND
SP-40 BTM 2.5'	460	ND	ND	ND	ND	ND	ND	ND
SP-41 BTM 2.5'	480	ND	ND	ND	ND	ND	ND	ND
SP-42 BTM 2.5'	230	ND	ND	ND	ND	ND	ND	ND
SP-43 BTM 2.5'	240	ND	ND	ND	ND	ND	ND	ND
Lab ID 2104C30-001: Collection Date-04/26/2021								
SP-44 NORTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-45 SOUTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-46 NORTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-47 SOUTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-48 NORTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-49 SOUTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-50 NORTH WALL	ND	ND	ND	ND	ND	ND	ND	ND

Devon Energy Remuda Basin SWD 1 - Soil Sample Results: Hall Environmental Laboratories								
Lab ID 2104533-004: Collection Date-04/08/2021								
Sample ID	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)
SP-51 WEST WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-52 SOUTH WALL	ND	ND	ND	ND	ND	ND	ND	ND
SP-53 BTM 3.5'	350	ND	ND	ND	ND	ND	ND	ND
SP-54 BTM 2.5'	160	ND	ND	ND	ND	ND	ND	ND
SP-55 BTM 2.5'	360	ND	ND	ND	ND	ND	ND	ND
SP-56 BTM 1.5'	250	ND	ND	ND	ND	ND	ND	ND
SP-57 BTM 1.5'	260	ND	ND	ND	ND	ND	ND	ND
SP-58 BTM 1.5'	240	ND	ND	ND	ND	ND	ND	ND
SP-59 BTM 1.5'	250	ND	ND	ND	ND	ND	ND	ND
SP-60 BTM 1.5'	77	ND	ND	ND	ND	ND	ND	ND

Once sample results verified both successful remediation and horizontal extent, the site was backfilled with clean soil. Pictures of the remediation are included in this report.

Closure Request

Based on the confirmation and horizontal sample results, SESI believes the release area to be properly remediated according to the closure criteria as approved in the email from Mr. Mike Bratcher dated January 25, 2017. Therefore, SESI, on behalf of Devon respectfully requests closure of both releases, NRM2014561795 & NAB1616740309. Supplemental information has been included in this report to support our closure request.

Supplemental Documentation for Closure

- Exhibit A: Talon Work Plan
- Exhibit B: NMOCD Email_Bratcher
- Exhibit C: BLM Email_Amos
- Figure 1: Map of Release with sample locations
- Figure 2: Photos of release and remediation
- Figure 3: NMOCD Oil and Gas Map
- Figure 4: BLM Cave Karst Map
- Figure 5: FEMA Floodplain Map
- Figure 6: Laboratory Analysis
- Figure 7: C-141

Exhibit A: Talon Work Plan



talonlpe.com • 866.742.0742



**Remediation Work Plan (REVISED)
Devon Energy: Remuda Basin SWD #001
|30-015-29549|2RP-3743|**

January 24, 2017

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

Prepared For:

Devon Energy

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

Subject: **Soil Assessment and Work Plan**
Devon Energy Production Company, LP
Remuda Basin SWD #001
|30-015-29549|2RP-3743|

Dear Mr. Bratcher,

Devon Energy Production Company, LP (Devon) has contracted Talon/LPE (Talon) to perform initial spill response, soil sampling and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

Site Information

The Remuda Basin SWD #1 is located approximately twenty-seven (27) miles southeast of Carlsbad, New Mexico. The legal location for this facility is Unit Letter D, Section 20, Township 23 South and Range 30 East in Eddy County, New Mexico. More specifically the latitude and longitude are 32.2968178 North and -103.9101791 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service (NRCS), the soil in this area is made up of Simona-Bippus complex with 0 to 5 percent slopes. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

According to the New Mexico Office of the State Engineer the ground water in this area is approximately 105-feet below ground surface (BGS). Therefore the ranking for this site is a **0** based on the following:

Depth to ground water >100'
Wellhead Protection Area >1000'
Distance to surface water body >1000'

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and 1,000 mg/kg for total chlorides.

Incident Description and Initial Remedial Actions

On June 12, 2016, the injection pump at this site failed resulting in a tank overflow and the release of approximately 500bbls of produced water. The produced water flowed across the location, breached the berm on the west side of the location, and flowed down gradient into the pasture for approximately 408-feet as shown on the attached site plan.

In February 2014, a previous release (2RP-2195) covered nearly an identical footprint on the well pad as the current June 2016 incident. Due to the presence of shallow rock on the location, the New Mexico Oil Conservation Division (NMOCD) District 2 and the Bureau of Land Management (BLM) Carlsbad Field Office gave permission for a 0.5-foot excavation on the well pad and issued a deferral of further remedial actions on the well pad and battery area until closure of the facility.

After reviewing the initial work plan NMOCD requested that a single soil boring be drilled east of sample location S-3. This location was chosen because it was determined to be the area of greatest concern in regards to vertical soil impacts.

On January 17, 2017, Talon mobilized an air rotary drill rig to vertically delineate the area described above. The results of our soil sampling activities are summarized in the tables below.

Laboratory Results

See [Appendix IV](#) for complete report of laboratory results.

July 28, 2016

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	--	60800	--	--
S-1	1	--	16800	--	--
S-1	2	--	16800	--	--
S-1 REFUSAL	3	--	9800	--	--
S-2	0	ND	56800	ND	ND
S-2	1	--	6930	--	--
S-2	2	--	7600	--	--
S-2 REFUSAL	3	--	4800	--	--
S-3	0	--	44800	--	--
S-3	1	--	12800	--	--
S-3	2	--	20800	--	--
S-3 REFUSAL	3	--	15200	--	--
S-4	0	--	13200	--	--
S-4	1	--	9200	--	--
S-4	2	--	15000	--	--
S-4 REFUSAL	3	--	11000	--	--
S-5	0	--	4800	--	--
S-5	1	--	8800	--	--
S-5 REFUSAL	2	--	6800	--	--
S-6	0	--	12400	--	--
S-6	1	--	3320	--	--
S-6	2	--	1550	--	--
S-6	3	--	2560	--	--
S-6	4	--	2480	--	--
S-6 REFUSAL	5	--	2760	--	--

January 17, 2017

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
BH-1	5	--	2820	--	--
BH-1	10	--	191	--	--
BH-1	15	--	135	--	--

Proposed Remedial Actions

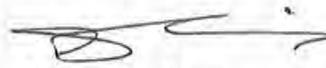
- The impacted area on the well pad in the vicinity of sample locations S-1 through S-3 will be excavated to a depth 0.5-bgs. The excavation will be backfilled with caliche. The remaining chloride impacts will be remediated at the closure of the facility, per NMOCD and BLM guidance on 2RP-2195.
- The impacted area in the pasture in the vicinity of sample locations S-4 through S-6 will be excavated to the top of rock (refusal).
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- Prior to backfilling areas S-4 through S-6, 0.5-feet of machine compacted caliche will be placed in the bottom of the excavation to act as additional capping material.
- The remaining vertical depth of the excavation will be backfilled with top soil, contoured to match the surrounding terrain and seeded with BLM #2 seed mixture.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE


 Sheldon L. Hitchcock
 Project Manager


 David J. Adkins
 District Manager

Attachments

- Appendix I Site Plan
- Appendix II Groundwater Data
- Appendix III Initial C-141
- Appendix IV Laboratory Results

APPENDIX I

SITE PLAN



Legend

-  Devon-Remuda Basin SWD #1
-  Impacted area
-  Sample Location

APPENDIX II

GROUNDWATER DATA



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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water Column	Water
C 02486	C	ED		3	2	3	19	23S	30E	601304	3572832*	1603	350		
C 03478 POD1	C	ED		3	2	1	21	23S	30E	604638	3573670	2022	230	105	125

Average Depth to Water: 105 feet

Minimum Depth: 105 feet

Maximum Depth: 105 feet

Record Count: 2

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 602617

Northing (Y): 3573752

Radius: 5000

*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.

APPENDIX III

INITIAL C-141

NM OIL CONSERVATION
ARTESIA DISTRICT

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

JUN 14 2016

Form C-141
Revised August 8, 2011

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

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

Release Notification and Corrective Action

DABI6110740309 OPERATOR Initial Report Final Report

Name of Company <u>Devon Energy Production Company 6137</u>		Contact <u>Matt Nettles, Production Foreman</u>
Address <u>6488 Seven Rivers Hwy Artesia, NM 88210</u>		Telephone No. <u>575.513.5767</u>
Facility Name <u>Remuda Basin SWD 1</u>		Facility Type <u>Salt Water Disposal</u>
Surface Owner <u>Federal</u>	Mineral Owner <u>Federal</u>	API No <u>30-015-29549</u>

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	20	23S	30E	330	FNL	660	FWL	Eddy

Latitude: 32.2966716 Longitude: -103.90964

NATURE OF RELEASE

Type of Release <u>Produced Water</u>	Volume of Release <u>500BBLS</u>	Volume Recovered <u>480BBLS</u>
Source of Release <u>Injection Pump</u>	Date and Hour of Occurrence <u>6/12/2016 @ 2:30PM</u>	Date and Hour of Discovery <u>6/12/2016 @ 2:30PM</u>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <u>BLM-Shelly Tucker</u> <u>OCD-Mike Bratcher</u>	
By Whom? <u>Jeremy Porras, Assistant Production Foreman</u>	Date and Hour <u>BLM-6/12/2016 @ 2:33PM</u> <u>OCD-6/12/2016 @ 2:35PM</u>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse <u>N/A</u>	
If a Watercourse was Impacted, Describe Fully.* <u>N/A</u>		
Describe Cause of Problem and Remedial Action Taken.* <u>As a result of mechanical failure injection pump failed to kick on and alarms were not activated resulting in 500BBLS of PW overflowing from the tanks. Produced water was also diverted another water disposal to prevent further release. Communication problem has been resolved.</u>		
Describe Area Affected and Cleanup Action Taken.* <u>500BBLS of pw was released as a result of the tanks overflowing. The release flowed in a southwestern direction and did reach the pasture. 480BBLS pw was recovered via vacuum truck. The approximate size of the total affected area was a 500ft by 500ft. An environmental company will be contacted for remediation.</u>		

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: <u>Dana DeLaRosa</u>	OIL CONSERVATION DIVISION	
Printed Name: <u>Dana DeLaRosa</u>	Signed By: <u>[Signature]</u> Approved by Environmental Specialist	
Title: <u>Field Admin Support</u>	Approval Date: <u>6/14/16</u>	Expiration Date: <u>N/A</u>
E-mail Address: <u>dana.delarosa@dvn.com</u>	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines Attached <input type="checkbox"/> SUBMIT REMEDIATION PROPOSAL NO LATER THAN: <u>7/15/16</u> <u>DRP. 3743</u>	

* Attach Additional Sheets If Necessary

Incident ID	nRM2014561795
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: Dale Woodall Title: Env. Professional

Signature: *Dale Woodall* Date: 3/15/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Incident ID	nAB1616740309
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: Dale Woodall Title: Env. Professional

Signature: *Dale Woodall* Date: 3/15/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX IV
LABORATORY RESULTS



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 29, 2016

DAVID ADKINS
TALON LPE
408 W. TEXAS AVE.
ARTESIA, NM 88210

RE: REMUDA SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/28/16 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

- Method EPA 552.2 Haloacetic Acids (HAA-5)
- Method EPA 524.2 Total Trihalomethanes (TTHM)
- Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 07/28/2016 Sampling Date: 07/28/2016
Reported: 07/29/2016 Sampling Type: Soil
Project Name: REMUDA SWD Sampling Condition: Cool & Intact
Project Number: 700794.198.01 Sample Received By: Jodi Henson
Project Location: DEVON

Sample ID: S-1 0' (H601693-01)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row 1: Chloride, 60800, 16.0, 07/29/2016, ND, 416, 104, 400, 0.00

Sample ID: S-1 1' (H601693-02)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row 1: Chloride, 16800, 16.0, 07/29/2016, ND, 416, 104, 400, 0.00

Sample ID: S-1 2' (H601693-03)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row 1: Chloride, 16800, 16.0, 07/29/2016, ND, 416, 104, 400, 0.00

Sample ID: S-1 3' REFUSAL (H601693-04)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row 1: Chloride, 9800, 16.0, 07/29/2016, ND, 416, 104, 400, 0.00

Cardinal Laboratories

*=Accredited Analyte

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Handwritten signature of Mike Snyder

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	07/28/2016	Sampling Date:	07/28/2016
Reported:	07/29/2016	Sampling Type:	Soil
Project Name:	REMUDA SWD	Sampling Condition:	Cool & Intact
Project Number:	700794.198.01	Sample Received By:	Jodi Henson
Project Location:	DEVON		

Sample ID: S-2 0' (H601693-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2016	ND	2.32	116	2.00	0.836		
Toluene*	<0.050	0.050	07/29/2016	ND	2.36	118	2.00	0.985		
Ethylbenzene*	<0.050	0.050	07/29/2016	ND	2.27	113	2.00	1.15		
Total Xylenes*	<0.150	0.150	07/29/2016	ND	6.81	114	6.00	1.08		
Total BTEX	<0.300	0.300	07/29/2016	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	56800	16.0	07/29/2016	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/28/2016	ND	196	98.0	200	1.79		
DRO >C10-C28	<10.0	10.0	07/28/2016	ND	214	107	200	2.98		

Surrogate: 1-Chlorooctane 76.8 % 35-147

Surrogate: 1-Chlorooctadecane 84.6 % 28-171

Sample ID: S-2 1' (H601693-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6930	16.0	07/29/2016	ND	416	104	400	0.00		

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 07/28/2016
Reported: 07/29/2016
Project Name: REMUDA SWD
Project Number: 700794.198.01
Project Location: DEVON

Sampling Date: 07/28/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 2' (H601693-07)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 7600.

Sample ID: S-2 3' REFUSAL (H601693-08)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 4800.

Sample ID: S-3 0' (H601693-09)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 44800.

Sample ID: S-3 1' (H601693-10)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 12800.

Sample ID: S-3 2' (H601693-11)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 20800.

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Signature of Mike Snyder

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 07/28/2016
Reported: 07/29/2016
Project Name: REMUDA SWD
Project Number: 700794.198.01
Project Location: DEVON

Sampling Date: 07/28/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 3' REFUSAL (H601693-12)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 15200.

Sample ID: S-4 0' (H601693-13)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 13200.

Sample ID: S-4 1' (H601693-14)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 9200.

Sample ID: S-4 2' (H601693-15)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 15000.

Sample ID: S-4 3' REFUSAL (H601693-16)

Table with 10 columns: Analyte, Result, Reporting Limit, Analyzed, Method Blank, BS, % Recovery, True Value QC, RPD, Qualifier. Row for Chloride shows Result 11000.

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	07/28/2016	Sampling Date:	07/28/2016
Reported:	07/29/2016	Sampling Type:	Soil
Project Name:	REMUDA SWD	Sampling Condition:	Cool & Intact
Project Number:	700794.198.01	Sample Received By:	Jodi Henson
Project Location:	DEVON		

Sample ID: S-5 0' (H601693-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4800	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-5 1' (H601693-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8800	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-5 2' REFUSAL (H601693-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-6 0' (H601693-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12400	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-6 1' (H601693-21)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3320	16.0	07/29/2016	ND	416	104	400	0.00		

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 07/28/2016 Sampling Date: 07/28/2016
Reported: 07/29/2016 Sampling Type: Soil
Project Name: REMUDA SWD Sampling Condition: Cool & Intact
Project Number: 700794.198.01 Sample Received By: Jodi Henson
Project Location: DEVON

Sample ID: S-6 2' (H601693-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1550	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-6 3' (H601693-23)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-6 4' (H601693-24)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2480	16.0	07/29/2016	ND	416	104	400	0.00		

Sample ID: S-6 5' REFUSAL (H601693-25)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2760	16.0	07/29/2016	ND	416	104	400	0.00		

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

ANALYSIS REQUEST

BIBBITO
 P.O. #: 70079419801

Company: Talon/LPE

Company: Talon/LPE

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

PRESERV

SAMPLING

DATE

TIME

OTHER :

ICE / COOL

ACID/BASE:

OTHER :

SLUDGE

OIL

SOIL

WASTEWATER

GROUNDWATER

CONTAINERS

(G)RAB OR (C)OMP.

MATRIX

Sample I.D.

Lab I.D.

FOR LAB USE ONLY

Project Name: Remuda SWD

Project #: 70079419801

City: Atesia

State: NM

Zip: 88210

Address: 408 W. Texas Ave.

City: Atesia

State: NM

Zip: 88210

Company Name: Talon/LPE

Project Manager: DAVID ADKINS

Address: 408 W. Texas Ave.

City: Atesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: 70079419801 Project Owner: DAVID

Project Name: Remuda SWD

Project Location: Carlos Tarullo

Sampler Name: Carlos Tarullo

FOR LAB USE ONLY

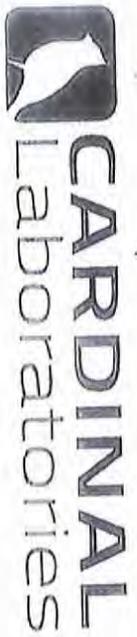
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	ANALYSIS REQUEST
H001692	S-1	0'	5	GROUNDWATER			7/6/16		TOTAL CHLORIDES
	S-1	1'		WASTEWATER					TPH
	S-1	2'		SOIL					BTEX
	S-1	3'		refusal					
	S-2	0'							
	S-2	1'							
	S-2	2'							
	S-2	3'		refusal					
	S-3	0'							
	S-3	1'							

PLEASE NOTE: Labels and containers, Cardinal's safety and chain custody summary for any chain custody worksheet located in contact or not, shall be placed in the amount paid by the client for the analysis. All chain custody labels for field use and any other chain custody labels shall be returned to Cardinal within 30 days after completion of the analysis. In no event shall Cardinal be liable for individual or organizational damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claims are based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature] Received By: [Signature]
 Date: 7/6/16
 Time: 4:15 PM

Delivered By: (Circle One) UPS - Bus - Other: 470
 Sample Condition: Cool Yes No
 Intact Yes No
 CHECKED BY: [Signature]

REMARKS: P. 1 of 3
 * Rush results please.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariani, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE		P.O. #: 70079419801									
Project Manager: DAVID ADKINS		Company: Talon/LPE									
Address: 408 W. Texas Ave.		Attn:									
City: Artesia		State: NM zip: 88210									
Phone #: 575-746-8768		Fax #: 575-746-8905									
Project #: 700794.198.01		Project Owner: DAVID									
Project Name: Remuda SW 9		City:									
Project Location:		State: Zip:									
Sample Name: Carlos Tarmillo		Phone #:									
FOR LAB USE ONLY		Fax #:									
Lab I.D.	Sample I.D.	MATRIX		PRESERV	SAMPLING						
		(G)RAB OR (C)OMP.	# CONTAINERS								
H0601093	5-3	2'									
	5-3	3'	Refusal								
	5-4	0'									
	5-4	1'									
	5-4	2'									
	5-4	3'	Refusal								
	5-5	0'									
	5-5	1'									
	5-5	2'	Refusal								
	5-5	2'	Refusal								
DATE		TIME		TOTAL CHLORIDES							
7/28/16											

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Relinquished By: *[Signature]*
 Date: 7/15
 Time: 4:15

Received By: *[Signature]*
 Date: *[Blank]*
 Time: *[Blank]*

Delivered By: (Circle One) UPS Bus Other
 4:70
 Sample Condition: Cool / Instruct
 Checked By: *[Signature]*
 Rush

Analytical Report 544312

for
Talon LPE

Project Manager: Sheldon Hitckcock

Remuda Basin SWD #1

70794.198.01

24-JAN-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



Table of Contents

Cover Page	1
Cover Letter	3
Sample ID Cross Reference	4
Case Narrative	5
Certificate of Analysis (Detailed Report)	6
Explanation of Qualifiers (Flags)	8
LCS / LCSD Recoveries	9
MS / MSD Recoveries	10
Chain of Custody	11
Sample Receipt Conformance Report	12



24-JAN-17

Project Manager: **Sheldon Hitckcock**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **544312**
Remuda Basin SWD #1
Project Address:

Sheldon Hitckcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 544312. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 544312 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

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Sample Cross Reference 544312



Talon LPE, Artesia, NM

Remuda Basin SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 5'	S	01-17-17 12:45		544312-001
BH-1 10'	S	01-17-17 12:55		544312-002
BH-1 15'	S	01-17-17 13:05		544312-003



CASE NARRATIVE



Client Name: Talon LPE

Project Name: Remuda Basin SWD #1

Project ID: 70794.198.01
Work Order Number(s): 544312

Report Date: 24-JAN-17
Date Received: 01/18/2017

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results

544312



Talon LPE, Artesia, NM

Remuda Basin SWD #1

Sample Id: **BH-1 5'**

Matrix: Soil

Sample Depth:

Lab Sample Id: 544312-001

Date Collected: 01.17.17 12.45

Date Received: 01.18.17 09.56

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: MNR

% Moist:

Tech: MNR

Seq Number: 3008172

Date Prep: 01.23.17 09.00

Prep seq: 718858

Parameter	CAS Number	Result	ML	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	2820	50.0	8.58	mg/kg	01.23.17 14:54		10

Sample Id: **BH-1 10'**

Matrix: Soil

Sample Depth:

Lab Sample Id: 544312-002

Date Collected: 01.17.17 12.55

Date Received: 01.18.17 09.56

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: MNR

% Moist:

Tech: MNR

Seq Number: 3008172

Date Prep: 01.23.17 09.00

Prep seq: 718858

Parameter	CAS Number	Result	ML	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	191	50.0	8.58	mg/kg	01.23.17 15:01		10

Sample Id: **BH-1 15'**

Matrix: Soil

Sample Depth:

Lab Sample Id: 544312-003

Date Collected: 01.17.17 13.05

Date Received: 01.18.17 09.56

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: MNR

% Moist:

Tech: MNR

Seq Number: 3008172

Date Prep: 01.23.17 09.00

Prep seq: 718858

Parameter	CAS Number	Result	ML	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	135	50.0	8.58	mg/kg	01.23.17 15:08		10



Certificate of Analytical Results
544312



Talon LPE, Artesia, NM
Remuda Basin SWD #1

Sample Id: 718858-1-BLK

Matrix: Solid

Sample Depth:

Lab Sample Id: 718858-1-BLK

Date Collected:

Date Received:

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: MNR

% Moist:

Tech: MNR

Seq Number: 3008172

Date Prep: 01.23.17 09.00

Prep seq: 718858

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	01.23.17 10:57	U	1



Flagging Criteria



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(602) 437-0330	



BS / BSD Recoveries

Project Name: Remuda Basin SWD #1

Work Order #: 544312 Project ID: 70794.198.01
 Analyst: MNR Date Analyzed: 01/23/2017
 Lab Batch ID: 3008172 Sample: 718858-1-BKS Date Prepared: 01/23/2017 Matrix: Solid
 Units: mg/kg Batch #: 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride by EPA 300	<0.858	250	250	100	250	252	101	1	90-110	20	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$
 Blank Spike Recovery [D] = $100 * (C)/[B]$
 Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$
 All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: Remuda Basin SWD #1

Work Order #: 544312 Project ID: 70794.198.01
 Lab Batch ID: 3008172 QC-Sample ID: 544401-009 S Batch #: 1 Matrix: Soil
 Date Analyzed: 01/23/2017 Date Prepared: 01/23/2017 Analyst: MNR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Parent Sample Result [A]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
571	766	78	250	778	83	2	90-110	20	X

Lab Batch ID: 3008172 QC-Sample ID: 544669-001 S Batch #: 1 Matrix: Soil
 Date Analyzed: 01/23/2017 Date Prepared: 01/23/2017 Analyst: MNR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Parent Sample Result [A]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
459	698	96	250	703	98	1	90-110	20	

Matrix Spike Percent Recovery $[D] = 100*(C-A)/B$
 Relative Percent Difference $RPD = 200*((C-F)/(C+F))$
 Matrix Spike Duplicate Percent Recovery $[G] = 100*(F-A)/E$
 ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



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Tampa, Florida (813-620-2000)

544812

CHAIN OF CUSTODY

Page 1 of 1

Client / Reporting Information		Project Information	
Company Name / Branch:	Talco Asia	Project Name/Number:	Remuda Basin SUD #1
Company Address:	108 W Texas Ave Austin, TX 78728	Project Location:	
Email:	shitchcock@talcope.com	Invoice To:	S. Hitchcock
Project Contact:	Selden Hitchcock	PO Number:	70294.198.01
Sample's Name:	Selden Hitchcock		

No.	Field ID / Point of Collection	Collection		Number of preserved bottles										Field Comments		
		Sample Depth	Date	Time	Matrix	# of bottles	HC	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH		NONE	
1	BH-1 5'	5'	11/21/17	12:45	S	1										Total Chlontides
2	BH-1 10'	10'	11/21/17	12:55	S	1										
3	BH-1 15'	15'	11/21/17	1:05	S	1										
4																
5																
6																
7																
8																
9																
10																

Turnaround Time (Business days) _____ Date Deliverable Information _____

Same Day TAT 5 Day TAT Level II Std QC Level IV (Full Data Pkg/raw data)
 Next Day EMERGENCY 7 Day TAT Level III Std QC+ Forms TRRP Level IV
 2 Day EMERGENCY Contract TAT Level 3 (CLP Forms) UST/ RG-411
 3 Day EMERGENCY TRRP Checklist

TAT Starts Day received by Lab. if received by 3:00 pm

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:
Selden Hitchcock		Shirley Walker			
Relinquished by:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:
Relinquished by:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:

Custody Seal # _____ Preserved where applicable _____
 On Ice Cooler Temp. _____ Therm. Comp. _____
 Temp. IR ID: R-8 _____

196 of 449 Pages of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless otherwise specified. Received 6:34:32 PM 11/21/17



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Talon LPE

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Date/ Time Received: 01/18/2017 09:56:00 AM

Temperature Measuring device used : R8

Work Order #: 544312

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	Yes
#5 *Custody Seals intact on shipping container/ cooler?	Yes
#6 Custody Seals intact on sample bottles?	Yes
#7 *Custody Seals Signed and dated?	Yes
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	N/A
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer

Date: 01/18/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks

Date: 01/18/2017

Exhibit B: NMOCD Email_Bratcher

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Wednesday, January 25, 2017 8:24 AM
To: Sheldon Hitchcock; Weaver, Crystal, EMNRD; Price, Henryetta
Cc: Fulks, Brett; David Adkins; Kimberly M. Wilson
Subject: RE: Devon Energy: Remuda Basin SWD #001 (30-015-29549) 2RP-3743

RE: Devon Energy * Remuda Basin SWD 1 * **2RP-3743** * DOR: 6/12/16

Sheldon,

Your proposal for partial remediation of the above referenced release is approved. OCD requests that as much of the impacted material be removed as is possible and/or practicable. Please submit a closure report upon completion of this project. Remaining contamination at this site will be deferred to a later date, or time of closure of the facility. OCD records will reflect the deferral with the incident remaining open in OCD database. Federal sites will require like approval from BLM.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Thank you,

Mike Bratcher
NMOCD District 2
811 S. First St.
Artesia NM 88210
575-748-1283 Ext 108
mike.bratcher@state.nm.us

From: Sheldon Hitchcock [mailto:slhitchcock@talonlpe.com]
Sent: Tuesday, January 24, 2017 3:19 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Price, Henryetta <hprice@blm.gov>
Cc: Fulks, Brett <Brett.Fulks@dvn.com>; David Adkins <dadkins@talonlpe.com>; Kimberly M. Wilson <kwilson@talonlpe.com>
Subject: Devon Energy: Remuda Basin SWD #001 (30-015-29549) 2RP-3743

Mike,

The revised work plan which includes the data from the soil boring that you requested is attached. As you will see we hit 191 mg/kg of chloride at 10-feet BGS. Please let me know if you have any questions or concerns.

Respectfully,

Sheldon Hitchcock

Project Manager

408 W. Texas Ave.

Artesia, NM 88210

Office: 575.746.8768

Direct: 575.616.4021

Cell: 575.689.5198

Fax: 575.746.8905

Emergency: 866.742.0742

Web: www.talonlpe.com



Exhibit C: BLM Email_Amos

From: [Bob Allen](#)
To: [Amos, James A](#)
Cc: [Amanda Davis](#); [Lupe Carrasco](#); [Sergio Contreras](#); [Jerry Sosa](#); [Kathy Purvis](#)
Subject: Re: Remuda Basin SWD 1 (6/12/16)
Date: Wednesday, February 17, 2021 6:20:03 PM

Thanks Jim! Will forward to Devon with a cost estimate and approval.

Bob Allen CSP, CHMM
Office. 575-397-0510
Cell 575-390-7063



On Feb 17, 2021, at 4:52 PM, Amos, James A <jamos@blm.gov> wrote:

Bob,

Remediation Work Plan (REVISED), dated January 24, 2017, submitted by Talon LPE was approved January 27, 2017 by Shelly Tucker. I would like to work off that same plan. It calls for the removal of the top .5' of impacted caliche on the well pad. At this time the firewall around the location needs to be beefed up to prevent a repeat of the previous releases.

The outside slope of the location needs to be at a 3:1 slope disked and seeded to reduce erosion issues and potential future breaches.

The entrance to the location should also be raised to prevent runoff from the location.

The areas impacted off the location, S-4, 5, and 6 should be stripped of all impacted material down to rock. I suggest pressure washing all loose material from the site, recovering the fluids at a catchment, or multiple catchments as you progress toward the tail-end of the spill events.

Once all material has been removed, bring in adequate clean caliche to elevate the deepest portion of the drainage by 2'. At this time install caliche erosion controls (12") every 20' from the toe of the location to the tail end of the release. Cap the caliche with 6" of topsoil. Seed with BLM #3 seedmix.

If any questions, feel free to get back to me.

Thanks

James A. Amos
Bureau of Land Management
Carlsbad Field Office
Supervisory Petroleum Engineering Tech
620 East Greene Street
Carlsbad, NM. 88220
Office: (575) 234-5909
Fax: (575) 234-5927
Cell: (575) 361-2648
E-mail: jamos@blm.gov

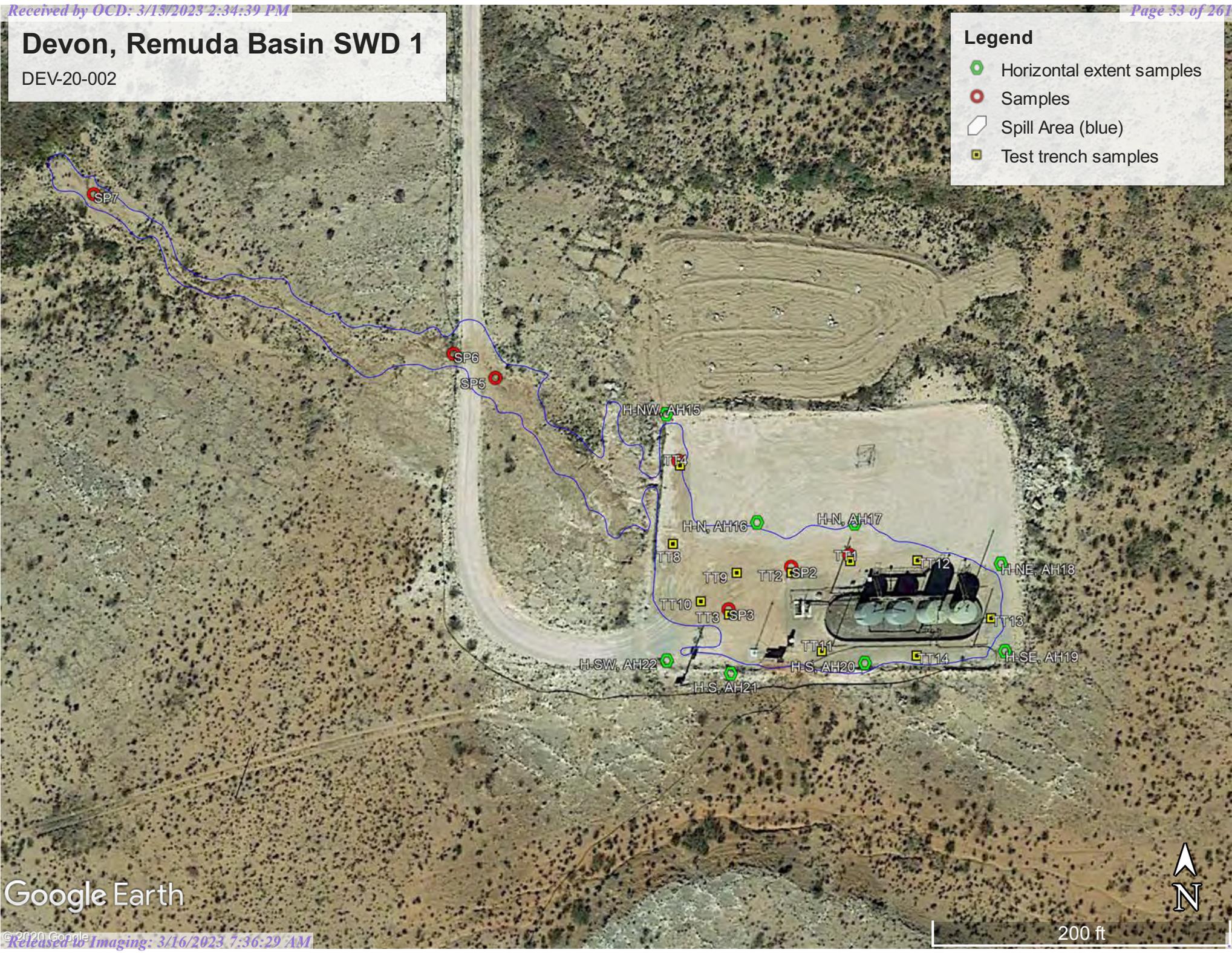
Figure 1: Map of Release (sample locations)

Devon, Remuda Basin SWD 1

DEV-20-002

Legend

- Horizontal extent samples
- Samples
- Spill Area (blue)
- Test trench samples



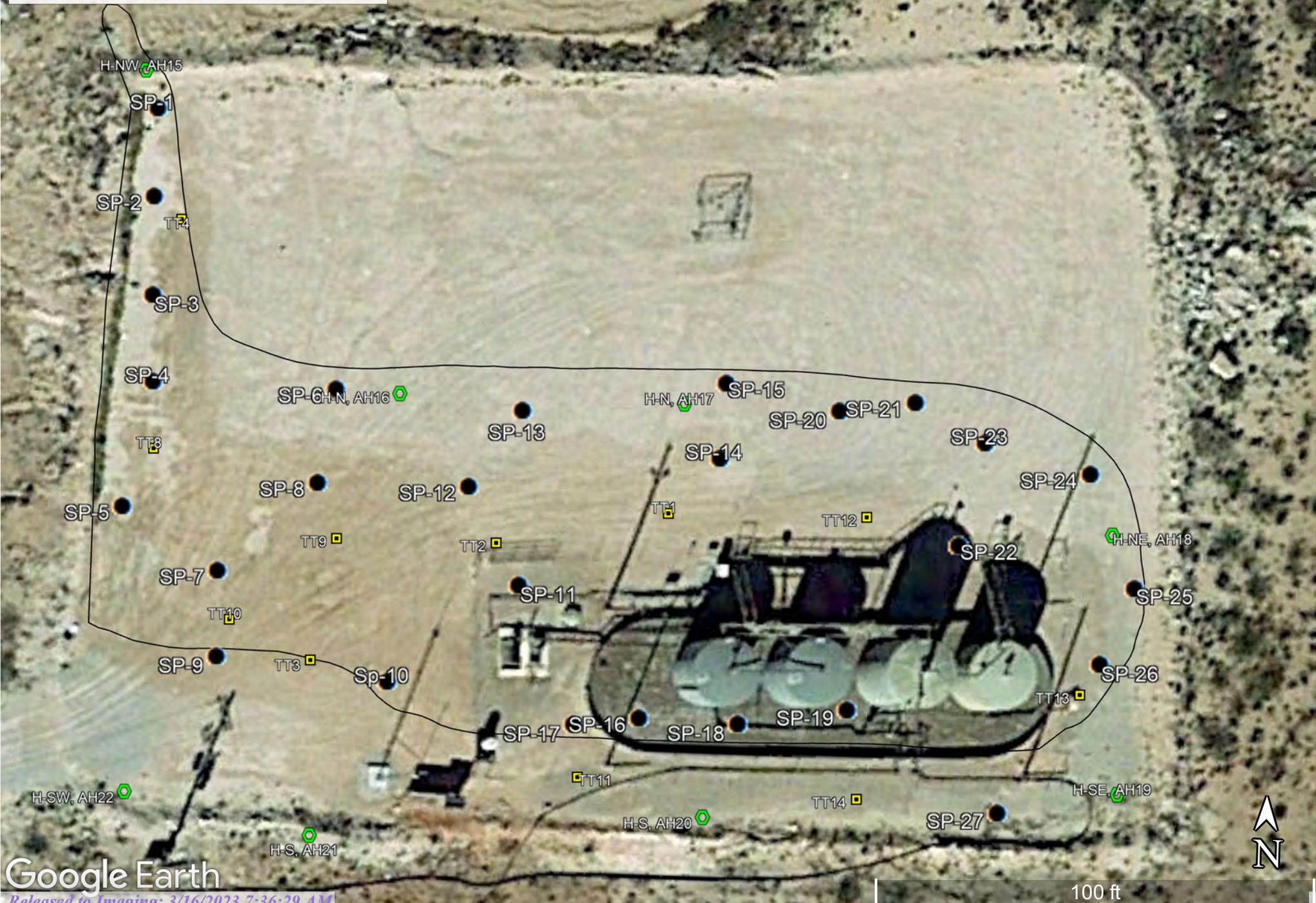
Google Earth



200 ft

Confirmation Sampling

CS SP 1-27



Google Earth

100 ft

Confirmation Sampling

CS SP 28-43



Confirmation Sampling

CS SP 44-60

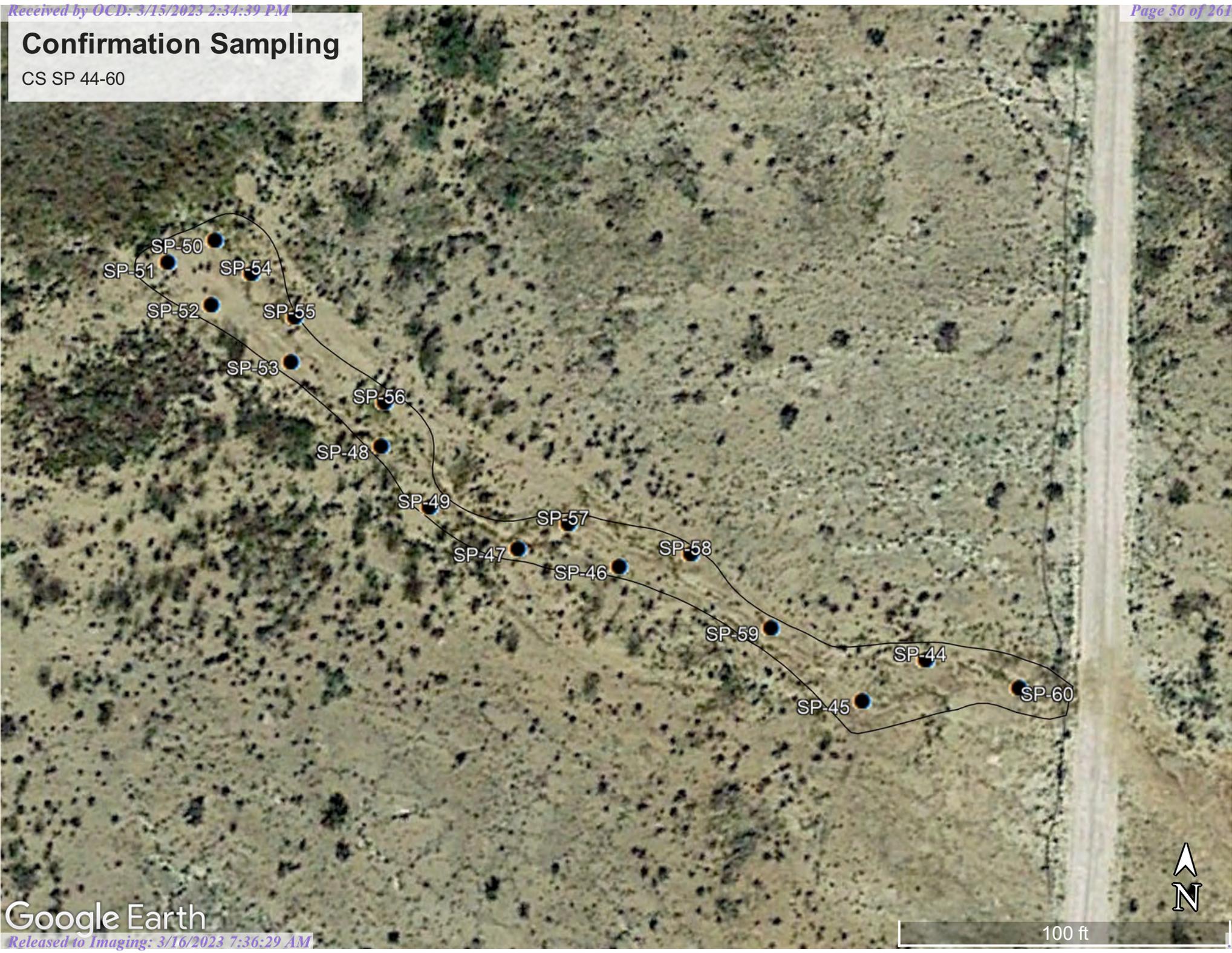
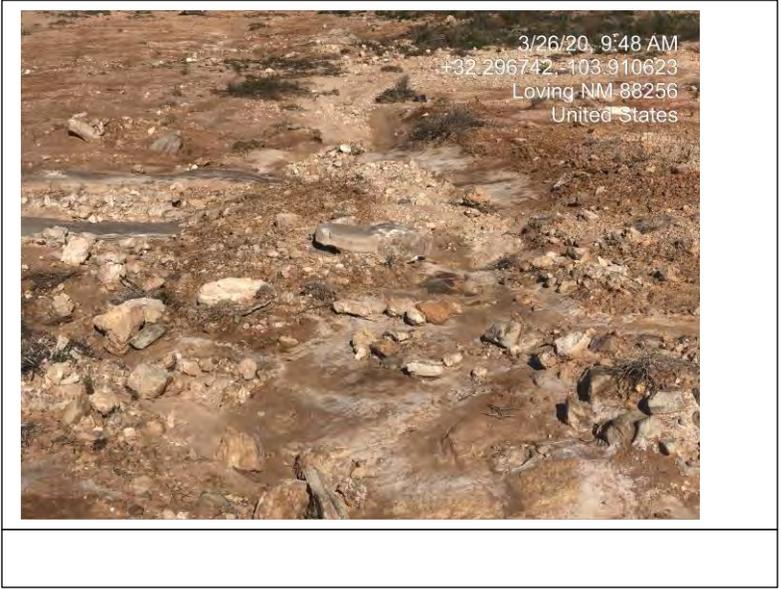
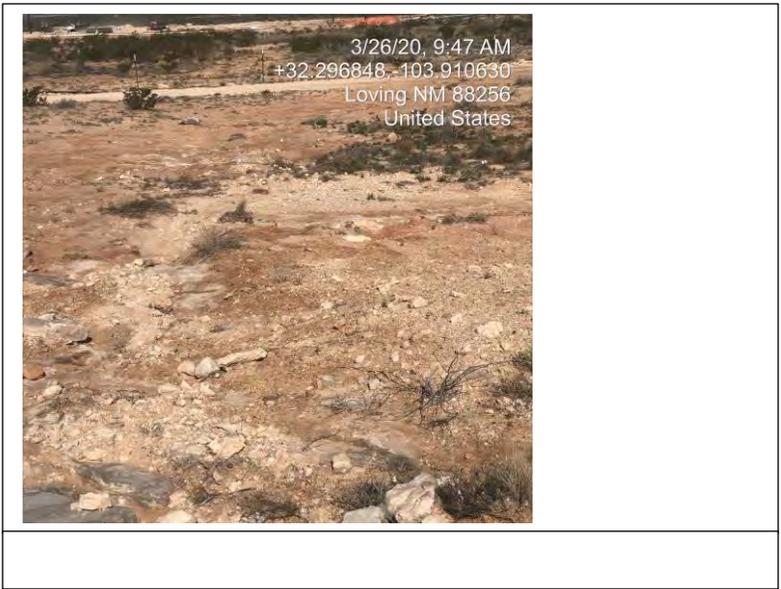
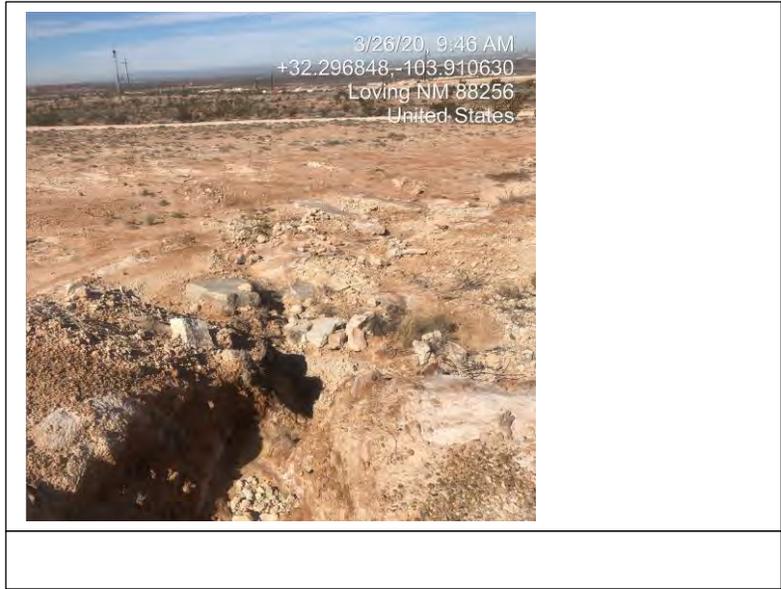


Figure 2: Photos of release and remediation

Devon Energy
Remuda Basin SWD 1 Excavation & Remediation

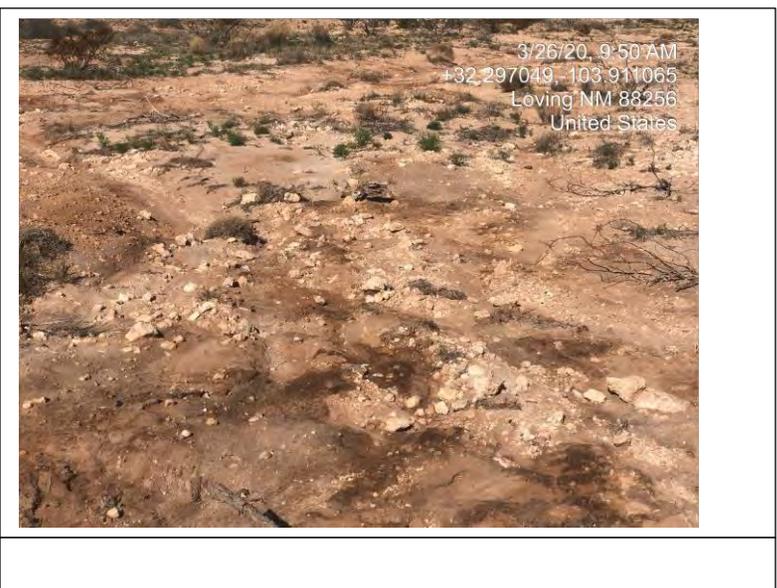


Devon Energy
Remuda Basin SWD 1 Excavation & Remediation

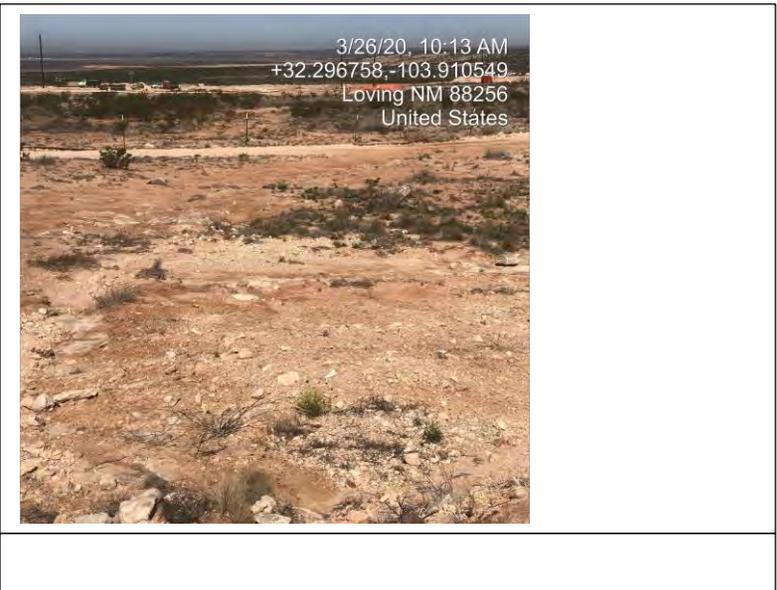
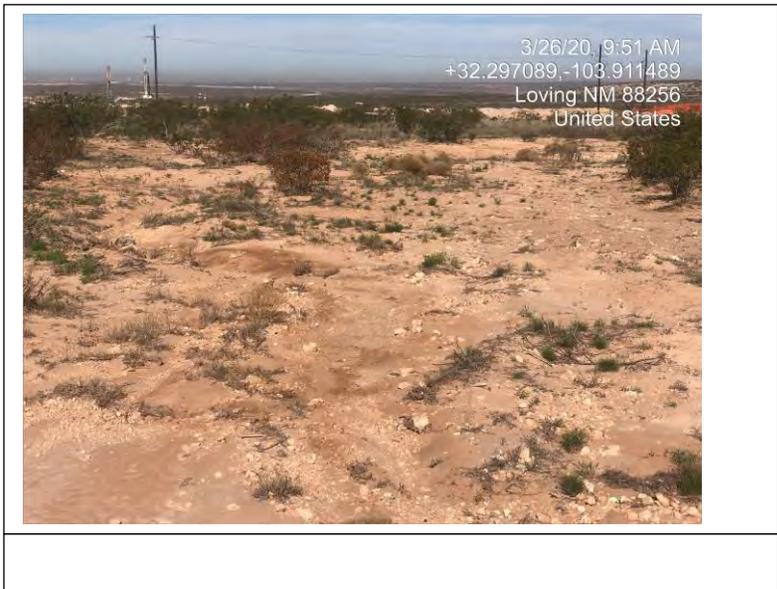


Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



Devon Energy
Remuda Basin SWD 1 Excavation & Remediation



Devon Energy
Remuda Basin SWD 1 Excavation & Remediation



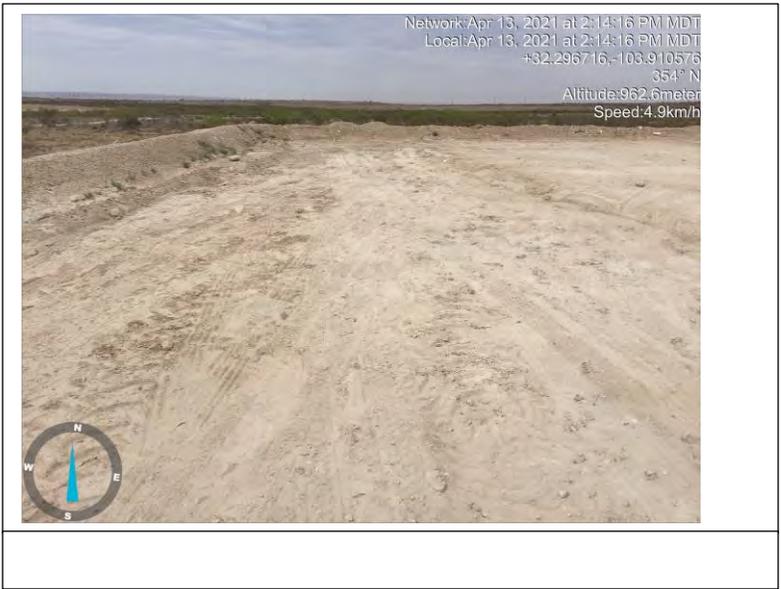
Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



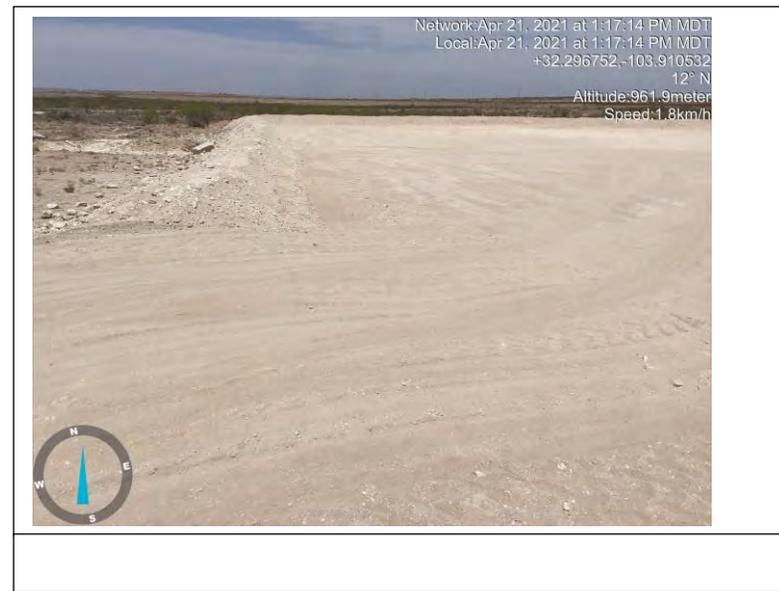
Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



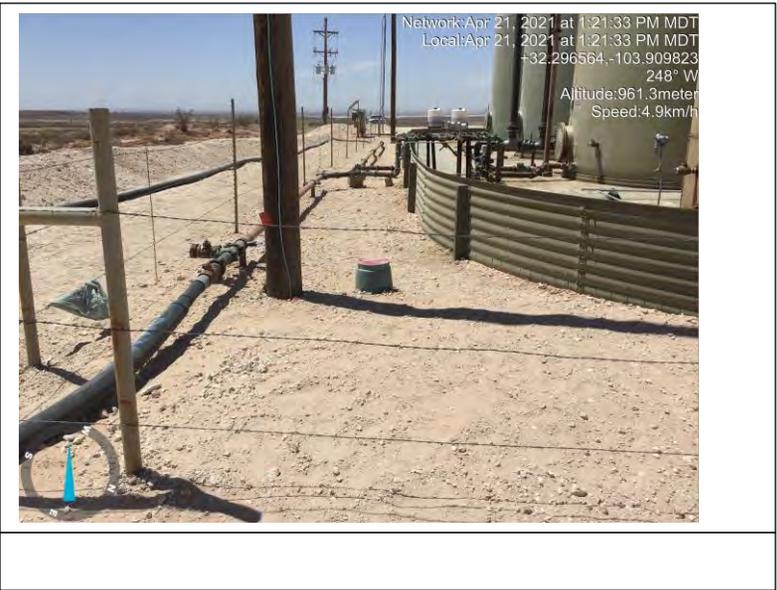
Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



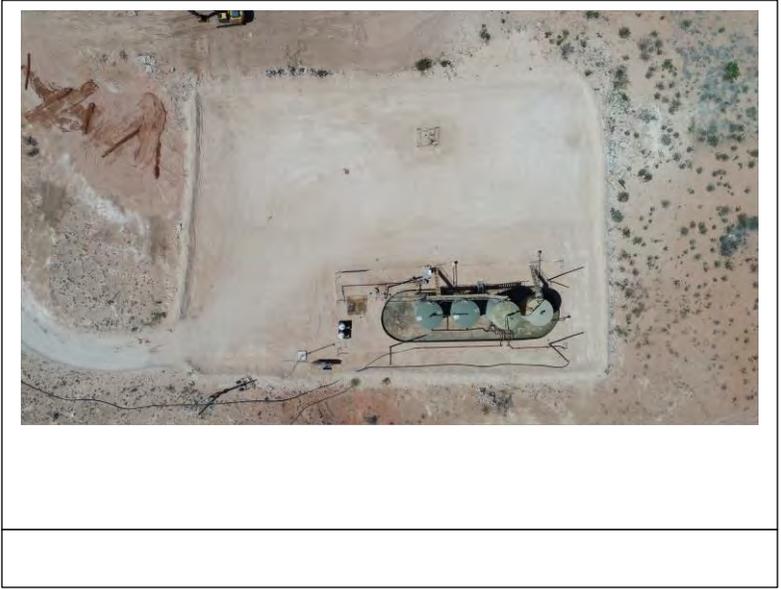
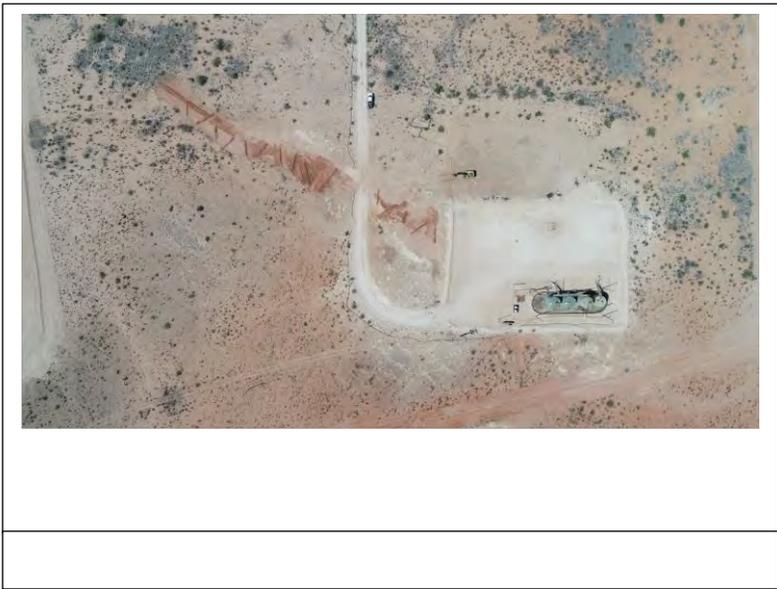
Devon Energy

Remuda Basin SWD 1 Excavation & Remediation



Devon Energy

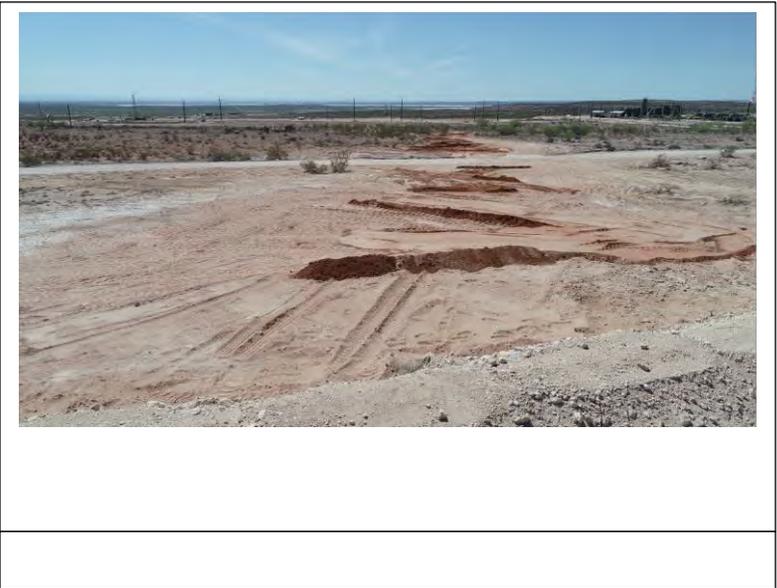
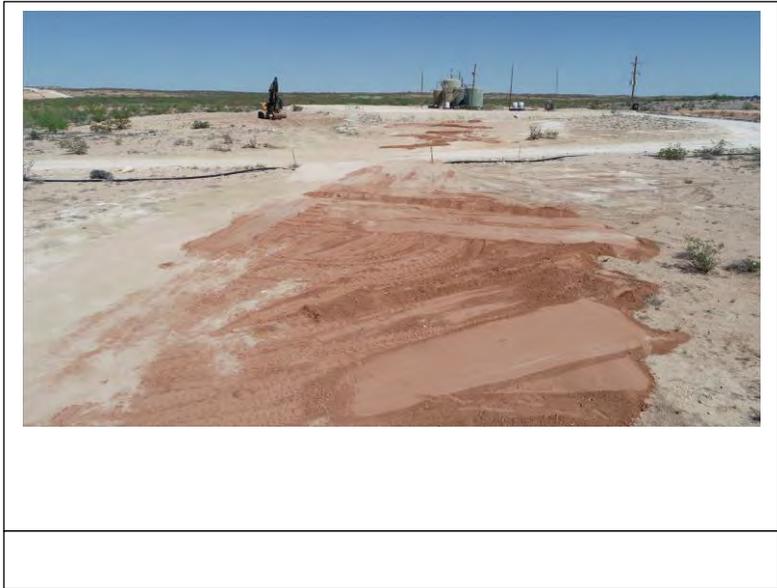
Remuda Basin SWD 1 Excavation & Remediation



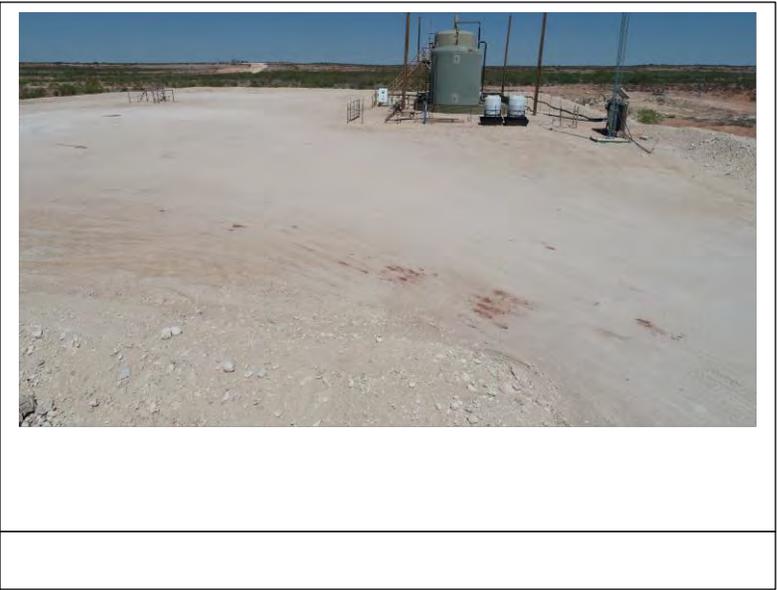
Devon Energy
Remuda Basin SWD 1 Excavation & Remediation



Devon Energy
Remuda Basin SWD 1 Excavation & Remediation



Devon Energy
Remuda Basin SWD 1 Excavation & Remediation



Devon Energy
Remuda Basin SWD 1 Excavation & Remediation

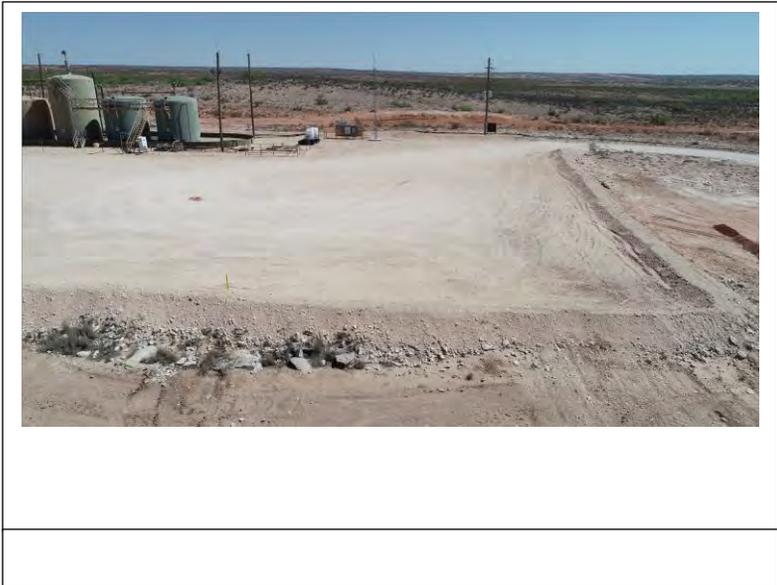
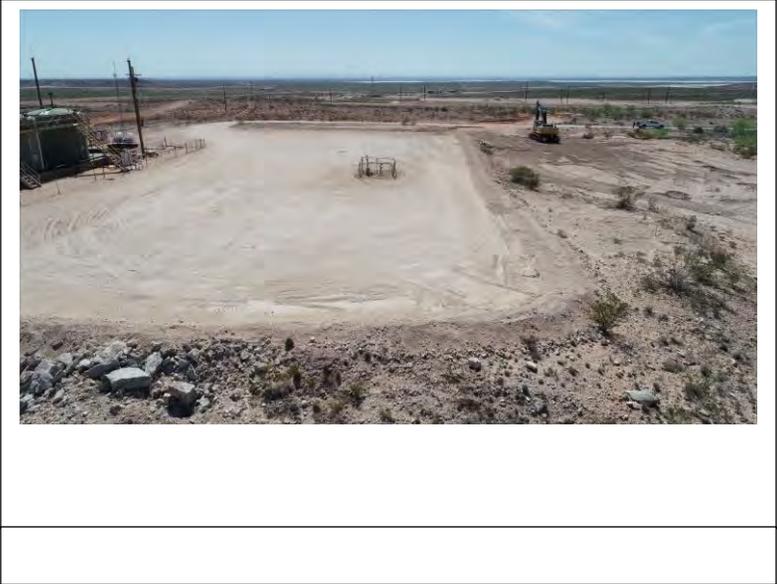
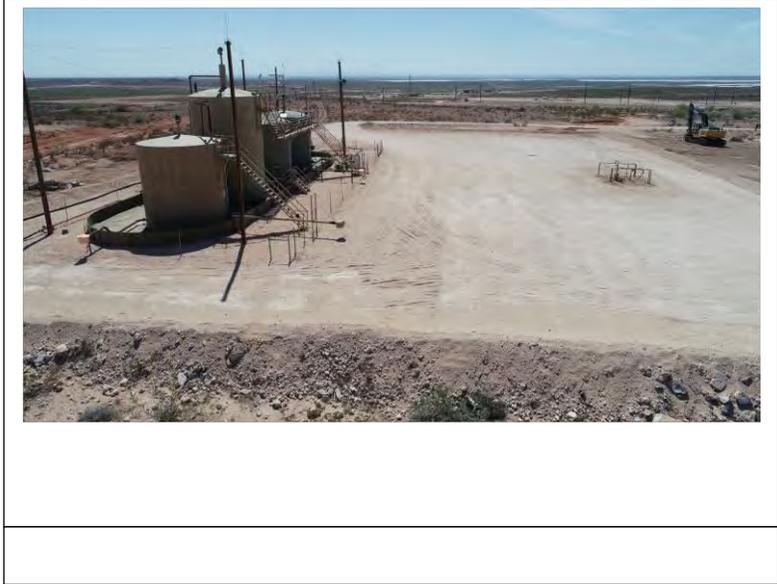
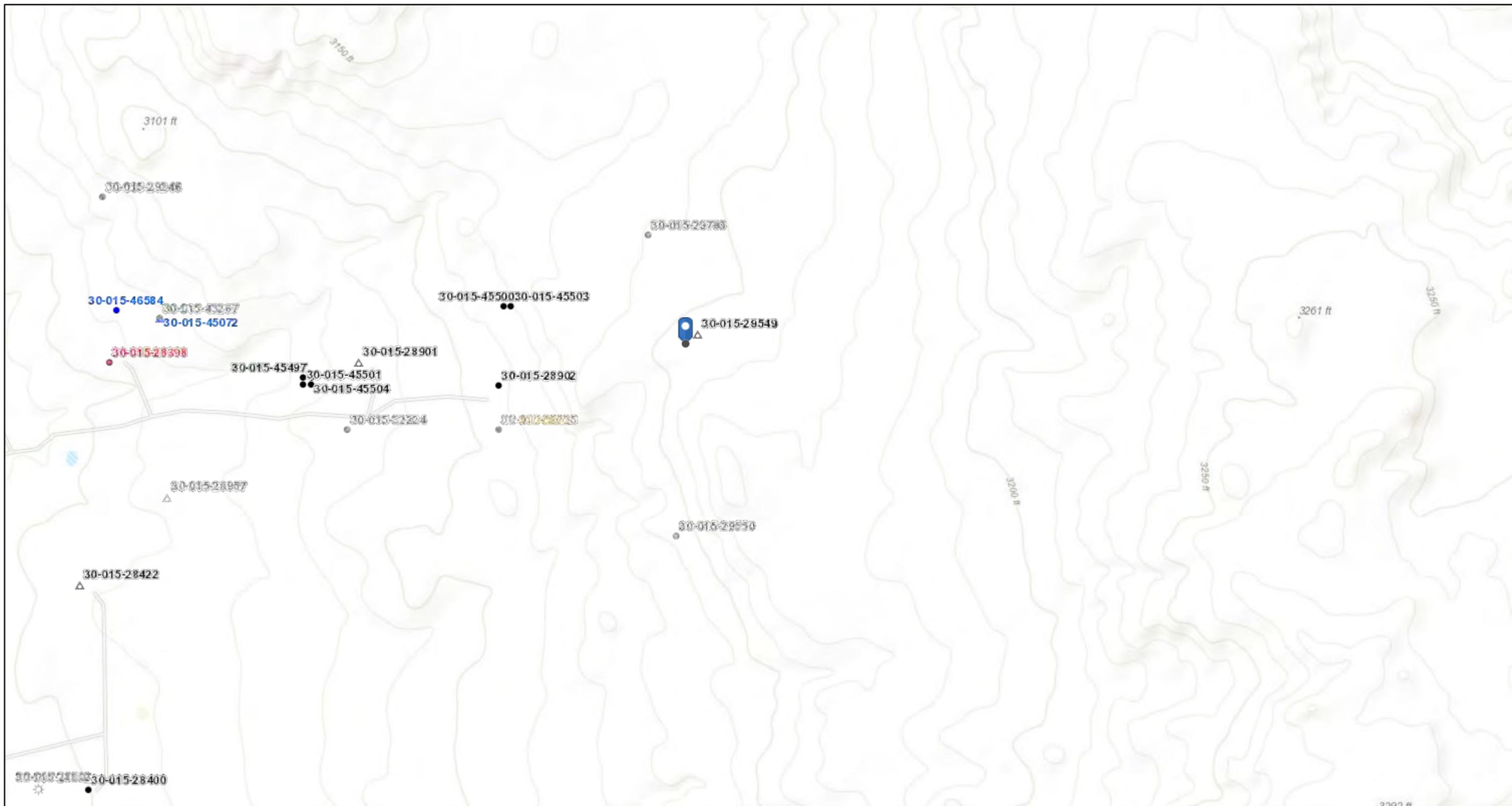


Figure 3: NMOCD Oil and Gas Map

Devon, Remuda Basin SWD 1



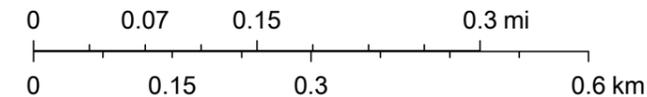
6/23/2021, 8:08:47 AM

Wells - Large Scale

- ? undefined
- Miscellaneous
- * CO2, Active
- * CO2, Cancelled
- * CO2, New
- * CO2, Plugged
- ☀ CO2, Temporarily Abandoned
- ⊛ Gas, Active
- ⊛ Gas, Cancelled
- ⊛ Gas, New
- ⊛ Gas, Plugged
- ⊛ Gas, Temporarily Abandoned
- ⊛ Injection, Active
- ⊛ Injection, Cancelled
- ⊛ Injection, New
- ⊛ Injection, Plugged
- ⊛ Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New

- Oil, Plugged
- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New
- △ Salt Water Injection, Plugged
- △ Salt Water Injection, Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- ★ OCD District Offices

1:9,028



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

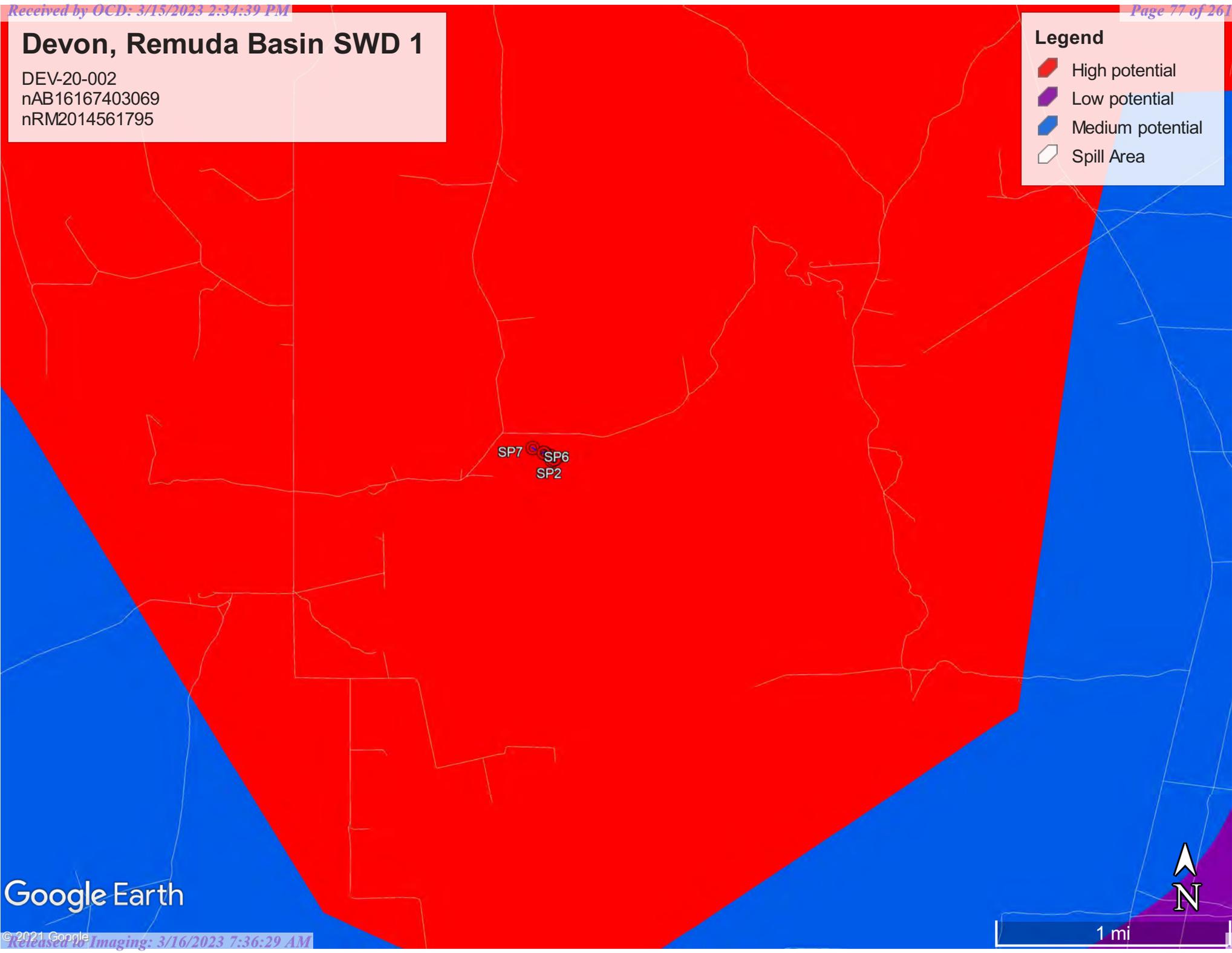
Figure 4: BLM Cave Karst Map

Devon, Remuda Basin SWD 1

DEV-20-002
nAB16167403069
nRM2014561795

Legend

-  High potential
-  Low potential
-  Medium potential
-  Spill Area



Google Earth

1 mi



Figure 5: FEMA Floodplain Map

National Flood Hazard Layer FIRMette



103°54'56"W 32°18'3"N



Legend

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

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

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

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs

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

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

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 6/23/2021 at 10:14 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 Home
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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

New Mexico

GO

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- [Full News](#) 

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321526103520101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321526103520101 23S.30E.34.32400

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°15'26", Longitude 103°52'01" NAD27

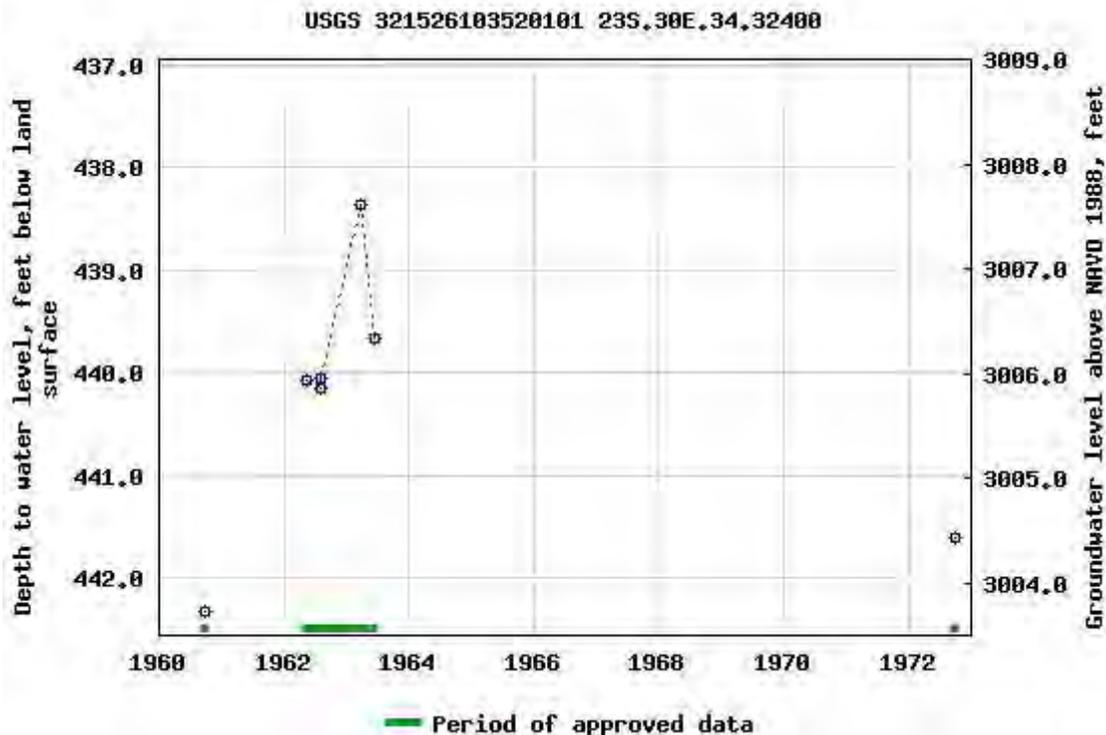
Land-surface elevation 3,446 feet above NAVD88

The depth of the well is 567 feet below land surface.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements. [Download a presentation-quality graph](#)

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Title: Groundwater for New Mexico: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2020-03-16 13:03:31 EDT

0.63 0.53 nadww01

Figure 6: Laboratory Analysis



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

April 21, 2020

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2004555

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 12 sample(s) on 4/11/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-1 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 9:20:00 AM

Lab ID: 2004555-001

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	21000	1500		mg/Kg	500	4/16/2020 2:41:50 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/14/2020 11:33:41 PM	51765
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/14/2020 11:33:41 PM	51765
Surr: DNOP	96.8	55.1-146		%Rec	1	4/14/2020 11:33:41 PM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/15/2020 6:56:28 PM	51750
Surr: BFB	99.0	66.6-105		%Rec	1	4/15/2020 6:56:28 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-1 1Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 9:40:00 AM

Lab ID: 2004555-002

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	18000	600		mg/Kg	200	4/17/2020 2:12:50 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/14/2020 11:57:40 PM	51765
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/14/2020 11:57:40 PM	51765
Surr: DNOP	94.9	55.1-146		%Rec	1	4/14/2020 11:57:40 PM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/15/2020 7:19:53 PM	51750
Surr: BFB	98.5	66.6-105		%Rec	1	4/15/2020 7:19:53 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 9:45:00 AM

Lab ID: 2004555-003

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	22000	1500		mg/Kg	500	4/16/2020 3:06:39 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/15/2020 12:21:26 AM	51765
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/15/2020 12:21:26 AM	51765
Surr: DNOP	99.1	55.1-146		%Rec	1	4/15/2020 12:21:26 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/15/2020 7:43:14 PM	51750
Surr: BFB	97.8	66.6-105		%Rec	1	4/15/2020 7:43:14 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 1Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 9:55:00 AM

Lab ID: 2004555-004

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	16000	600		mg/Kg	200	4/17/2020 2:25:14 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/15/2020 12:45:20 AM	51765
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/15/2020 12:45:20 AM	51765
Surr: DNOP	102	55.1-146		%Rec	1	4/15/2020 12:45:20 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/15/2020 8:06:49 PM	51750
Surr: BFB	98.1	66.6-105		%Rec	1	4/15/2020 8:06:49 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-2 2Ft

Project: Devon Remuda Basin SWD 1

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

Lab ID: 2004555-005

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	17000	600		mg/Kg	200	4/17/2020 2:37:39 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/15/2020 1:09:11 AM	51765
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/15/2020 1:09:11 AM	51765
Surr: DNOP	101	55.1-146		%Rec	1	4/15/2020 1:09:11 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/15/2020 8:30:24 PM	51750
Surr: BFB	95.5	66.6-105		%Rec	1	4/15/2020 8:30:24 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-3 Surface

Project: Devon Remuda Basin SWD 1

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

Lab ID: 2004555-006

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	8800	300		mg/Kg	100	4/16/2020 3:43:51 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/15/2020 1:33:03 AM	51765
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/15/2020 1:33:03 AM	51765
Surr: DNOP	99.4	55.1-146		%Rec	1	4/15/2020 1:33:03 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/15/2020 10:05:30 PM	51750
Surr: BFB	102	66.6-105		%Rec	1	4/15/2020 10:05:30 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-3 1Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 10:45:00 AM

Lab ID: 2004555-007

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	17000	600		mg/Kg	200	4/17/2020 2:50:04 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/15/2020 1:56:41 AM	51765
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/15/2020 1:56:41 AM	51765
Surr: DNOP	99.7	55.1-146		%Rec	1	4/15/2020 1:56:41 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/15/2020 10:29:14 PM	51750
Surr: BFB	99.6	66.6-105		%Rec	1	4/15/2020 10:29:14 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-4 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 11:25:00 AM

Lab ID: 2004555-008

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	14000	600		mg/Kg	200	4/17/2020 3:27:17 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/15/2020 2:20:28 AM	51765
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/15/2020 2:20:28 AM	51765
Surr: DNOP	97.0	55.1-146		%Rec	1	4/15/2020 2:20:28 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/15/2020 10:52:57 PM	51750
Surr: BFB	99.4	66.6-105		%Rec	1	4/15/2020 10:52:57 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-4 1Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 12:05:00 PM

Lab ID: 2004555-009

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	2000	60		mg/Kg	20	4/15/2020 3:52:30 PM	51821
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/15/2020 2:44:05 AM	51765
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/15/2020 2:44:05 AM	51765
Surr: DNOP	84.1	55.1-146		%Rec	1	4/15/2020 2:44:05 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/15/2020 11:16:43 PM	51750
Surr: BFB	99.3	66.6-105		%Rec	1	4/15/2020 11:16:43 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-5 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 1:05:00 PM

Lab ID: 2004555-010

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	9000	600		mg/Kg	200	4/16/2020 4:21:05 PM	51819
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/15/2020 3:07:53 AM	51765
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/15/2020 3:07:53 AM	51765
Surr: DNOP	93.4	55.1-146		%Rec	1	4/15/2020 3:07:53 AM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/15/2020 11:40:27 PM	51750
Surr: BFB	101	66.6-105		%Rec	1	4/15/2020 11:40:27 PM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-6 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 1:25:00 PM

Lab ID: 2004555-011

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6700	300		mg/Kg	100	4/16/2020 4:58:19 PM	51819
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/15/2020 8:49:05 PM	51765
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/15/2020 8:49:05 PM	51765
Surr: DNOP	96.9	55.1-146		%Rec	1	4/15/2020 8:49:05 PM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/16/2020 12:04:11 AM	51750
Surr: BFB	101	66.6-105		%Rec	1	4/16/2020 12:04:11 AM	51750

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

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

Analytical Report

Lab Order **2004555**

Date Reported: **4/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: AH-7 Surface

Project: Devon Remuda Basin SWD 1

Collection Date: 4/10/2020 2:00:00 PM

Lab ID: 2004555-012

Matrix: SOIL

Received Date: 4/11/2020 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12000	600		mg/Kg	200	4/16/2020 5:10:43 PM	51819
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	41	9.5		mg/Kg	1	4/15/2020 9:13:32 PM	51765
Motor Oil Range Organics (MRO)	87	48		mg/Kg	1	4/15/2020 9:13:32 PM	51765
Surr: DNOP	101	55.1-146		%Rec	1	4/15/2020 9:13:32 PM	51765
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	24	D	mg/Kg	5	4/16/2020 12:27:55 AM	51750
Surr: BFB	99.4	66.6-105	D	%Rec	5	4/16/2020 12:27:55 AM	51750

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004555

21-Apr-20

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-51821	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 51821	RunNo: 68136								
Prep Date: 4/15/2020	Analysis Date: 4/15/2020	SeqNo: 2356599	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-51821	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 51821	RunNo: 68136								
Prep Date: 4/15/2020	Analysis Date: 4/15/2020	SeqNo: 2356600	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

Sample ID: MB-51819	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 51819	RunNo: 68146								
Prep Date: 4/15/2020	Analysis Date: 4/15/2020	SeqNo: 2356712	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-51819	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 51819	RunNo: 68146								
Prep Date: 4/15/2020	Analysis Date: 4/15/2020	SeqNo: 2356713	Units: mg/Kg							
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 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#: 2004555

21-Apr-20

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-51765	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 51765	RunNo: 68101								
Prep Date: 4/13/2020	Analysis Date: 4/14/2020	SeqNo: 2355611	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.7	70	130			
Surr: DNOP	3.9		5.000		78.4	55.1	146			

Sample ID: MB-51765	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 51765	RunNo: 68101								
Prep Date: 4/13/2020	Analysis Date: 4/14/2020	SeqNo: 2355612	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	5.8		10.00		58.5	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#: 2004555

21-Apr-20

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: mb-51750	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 51750	RunNo: 68135								
Prep Date: 4/13/2020	Analysis Date: 4/15/2020	SeqNo: 2356056	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.3	66.6	105			

Sample ID: lcs-51750	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 51750	RunNo: 68135								
Prep Date: 4/13/2020	Analysis Date: 4/15/2020	SeqNo: 2356057	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	80	120			
Surr: BFB	1100		1000		110	66.6	105			S

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Safety Env Solutions Work Order Number: 2004555 RcptNo: 1

Received By: Erin Melendrez 4/11/2020 10:00:00 AM
Completed By: Erin Melendrez 4/11/2020 11:44:30 AM
Reviewed By: [Signature]

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: ENM 4/11/20

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, [], [], [], []. Row 2: 2, 3.3, Good, [], [], [], [].



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

July 20, 2020

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

RE: Devon Remuda Basin SWD 1 2RP 3743

OrderNo.: 2007501

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 22 sample(s) on 7/10/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-1 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 9:30:00 AM

Lab ID: 2007501-001

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	2200	150		mg/Kg	50	7/15/2020 5:42:20 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-2 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 10:00:00 AM

Lab ID: 2007501-002

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	9300	600		mg/Kg	200	7/15/2020 6:19:34 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-3 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 10:30:00 AM

Lab ID: 2007501-003

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	15000	590		mg/Kg	200	7/15/2020 6:31:59 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-4 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 10:40:00 AM

Lab ID: 2007501-004

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	16000	600		mg/Kg	200	7/15/2020 6:44:24 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-8 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:00:00 AM

Lab ID: 2007501-005

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	37000	1500		mg/Kg	500	7/15/2020 6:56:48 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-8 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:05:00 AM

Lab ID: 2007501-006

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	9700	600		mg/Kg	200	7/15/2020 7:09:12 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-8 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:20:00 AM

Lab ID: 2007501-007

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	7500	300		mg/Kg	100	7/15/2020 7:21:37 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-9 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:30:00 AM

Lab ID: 2007501-008

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	51000	3000		mg/Kg	1E+	7/15/2020 7:34:01 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-9 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:35:00 AM

Lab ID: 2007501-009

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	5400	300		mg/Kg	100	7/15/2020 7:46:26 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-9 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 11:45:00 AM

Lab ID: 2007501-010

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	4700	300		mg/Kg	100	7/15/2020 7:58:51 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-10 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:05:00 PM

Lab ID: 2007501-011

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	45000	3000		mg/Kg	1E+	7/15/2020 8:11:16 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-10 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:10:00 PM

Lab ID: 2007501-012

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	6300	300		mg/Kg	100	7/15/2020 8:48:29 PM	53711

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-10 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:20:00 PM

Lab ID: 2007501-013

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	3100	150		mg/Kg	50	7/17/2020 7:58:39 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-11 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:25:00 PM

Lab ID: 2007501-014

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	21000	1500		mg/Kg	500	7/17/2020 8:11:03 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-11 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:35:00 PM

Lab ID: 2007501-015

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	3000	150		mg/Kg	50	7/17/2020 8:23:28 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-12 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:40:00 PM

Lab ID: 2007501-016

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	25000	1500		mg/Kg	500	7/17/2020 8:35:53 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-12 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 12:55:00 PM

Lab ID: 2007501-017

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	8300	300		mg/Kg	100	7/17/2020 8:48:18 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-13 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 1:00:00 PM

Lab ID: 2007501-018

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	15000	600		mg/Kg	200	7/17/2020 9:00:42 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-13 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 1:15:00 PM

Lab ID: 2007501-019

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	4300	150		mg/Kg	50	7/17/2020 9:13:07 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-13 2ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 1:30:00 PM

Lab ID: 2007501-020

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6900	300		mg/Kg	100	7/17/2020 2:36:54 PM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: **7/20/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-14 Surface

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 1:35:00 PM

Lab ID: 2007501-021

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	3900	150		mg/Kg	50	7/17/2020 9:37:56 AM	53723

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

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

Analytical Report

Lab Order **2007501**

Date Reported: 7/20/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: TT-14 1ft

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/26/2020 2:00:00 PM

Lab ID: 2007501-022

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	8800	600		mg/Kg	200	7/17/2020 9:50:21 AM	53723

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007501

20-Jul-20

Client: Safety & Environmental Solutions
Project: Devon Remuda Basin SWD 1 2RP 3743

Sample ID: MB-53711	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53711	RunNo: 70349								
Prep Date: 7/14/2020	Analysis Date: 7/14/2020	SeqNo: 2445036	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

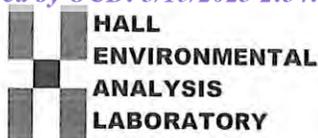
Sample ID: LCS-53711	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53711	RunNo: 70349								
Prep Date: 7/14/2020	Analysis Date: 7/14/2020	SeqNo: 2445039	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID: MB-53723	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53723	RunNo: 70358								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446385	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53723	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53723	RunNo: 70358								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446386	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	90	110			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions Work Order Number: 2007501 RcptNo: 1

Received By: Leah Baca 7/10/2020 9:35:00 AM
Completed By: Leah Baca 7/10/2020 11:25:32 AM
Reviewed By: EM 7/10/20

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: SPA 7.10.20

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, 5.1, Good, [], [], [], []

Chain-of-Custody Record

Client: Safety & Environmental Solutions
 Mailing Address: 703 E. Clinton Hobbs N.M. 88240
 Phone #: 575-397-0510
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other EDD (Type) _____

Turn-Around Time: 5 days
 Standard Rush
 Project Name: Design Revision (Boson SWD1 2 RP. 3743)
 Project #: DEV-20-002

Project Manager: Allen, Bob
 Sampler: Sara Jany
 On Ice: Yes No
 # of Coolers: 0
 Cooler Temp (including CF): 4.9+0.6, 4.7+0.5, 1 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
06/26	0930	S	T1-1 2FF	1	TAH	2007501 -001
	1000	S	T1-2 2FF	1		-002
	1030	S	T1-3 2FF	1		-003
	1040	S	T1-4 2FF	1		-004
	1100	S	T1-8 Sample	1		-005
	1105	S	T1-8 1FF	1		-006
	1120	S	T1-8 2FF	1		-007
	1130	S	T1-9 Sample	1		-008
	1135	S	T1-9 1FF	1		-009
	1145	S	T1-9 2FF	1		-010
	1205	S	T1-10 Sample	1		-011
06/26	1210	S	T1-10 1FF	1		-012

Received by: Alan Cummings Date: 7/9/10 1000
 Received by: Alana Date: 7/12/20 0935

Analysis Request

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

Remarks:

Chain-of-Custody Record

Client: Sufite + Environmental Solutions

Mailing Address: 703 E. Clinton Hobbs N.M. 88240

Phone #: 575-397-0510

email or Fax#: _____

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

Accreditation: Az Compliance NELAC Other

EDD (Type) _____

Turn-Around Time: 5 days

Standard Rush

Project Name: Devon KEMUDA Basin SWD 1 2 RP-3743

Project #: DEV-20-002

Project Manager: Allen, Bob

Sampler: Son Jimmy

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 4.9°C, 2-5.1°C (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
06/26	1220	S	T-10 Super	1	Free	2007501
	1225	S	T-11 Super	1		-013 -6013
	1235	S	T-11 HF	1		-014 -6014
	1240	S	T-12 Super	1		-015 -6015
	1255	S	T-12 HF	1		-016
	1300	S	T-13 Super	1		-017
	1315	S	T-13 HF	1		-018
	1330	S	T-13 Super	1		-019
	1335	S	T-14 Super	1		-020
	1400	S	T-14 HF	1		-021

Received by: Son Jimmy Date: 7/9/20 1000

Relinquished by: Son Jimmy

Received by: Leah Date: 7/10/20 0935

Relinquished by: Leah



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

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

Remarks:



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

July 17, 2020

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

RE: Devon Remuda Basin SWD 1 2RP 3743

OrderNo.: 2007503

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/10/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-North West AH-15

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 9:20:00 AM

Lab ID: 2007503-001

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	7/15/2020 10:37:24 PM	53723

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-North AH-16

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 11:10:00 AM

Lab ID: 2007503-002

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	140	60		mg/Kg	20	7/15/2020 11:39:04 PM	53723

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-North AH-17

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 12:55:00 PM

Lab ID: 2007503-003

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/15/2020 1:34:09 PM	53722

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-North East AH-18

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 1:35:00 PM

Lab ID: 2007503-004

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	92	60		mg/Kg	20	7/15/2020 2:11:22 PM	53722

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-SouthEast AH-19

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 2:10:00 PM

Lab ID: 2007503-005

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	94	60		mg/Kg	20	7/15/2020 2:23:47 PM	53722

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-South AH-20

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 2:20:00 PM

Lab ID: 2007503-006

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	250	60		mg/Kg	20	7/15/2020 2:36:11 PM	53722

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-South AH-21

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 2:35:00 PM

Lab ID: 2007503-007

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	250	60		mg/Kg	20	7/15/2020 2:48:36 PM	53722

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

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

Analytical Report

Lab Order **2007503**

Date Reported: **7/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: H-SouthWest AH-22

Project: Devon Remuda Basin SWD 1 2RP 3743

Collection Date: 6/29/2020 2:45:00 PM

Lab ID: 2007503-008

Matrix: SOIL

Received Date: 7/10/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	280	60		mg/Kg	20	7/15/2020 3:01:00 PM	53722

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007503

17-Jul-20

Client: Safety & Environmental Solutions
Project: Devon Remuda Basin SWD 1 2RP 3743

Sample ID: MB-53723	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53723	RunNo: 70358								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446385	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

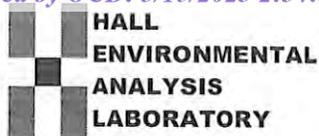
Sample ID: LCS-53723	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53723	RunNo: 70358								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446386	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	90	110			

Sample ID: LCS-53722	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53722	RunNo: 70356								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446489	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Sample ID: MB-53722	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53722	RunNo: 70356								
Prep Date: 7/15/2020	Analysis Date: 7/15/2020	SeqNo: 2446490	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2007503
RcptNo: 1

Received By: Leah Baca 7/10/2020 9:35:00 AM
Completed By: Leah Baca 7/10/2020 11:28:22 AM
Reviewed By: LB LB 7/10/20

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: SPA 7.10.20

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, 5.1, Good, [], [], [], []

Chain-of-Custody Record

Client: Safety & Environmental Solutions
 Mailing Address: 703 E CLINTON
Hobbs N.M. 88240
 Phone #: 575-397-0510
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other EDD (Type) _____

Turn-Around Time: 5 day
 Standard Rush
 Project Name: Devon Suid I
KUMUDA BASIN SUID I
IRP-3743
 Project #: Dev-20-002

Project Manager: Allen, Bob
 Sampler: San Jun
 On Ice: Yes No
 # of Coolers: 0
 Cooler Temp (including CF): 49 + 0.2 = 51 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
06/24	0920	S	H-NORTH WEST AH-15	1	Tar	2007503
	1110	S	H-NORTH AH-16	1		-001
	1255	S	H-NORTH AH-17	1		-002
	1335	S	H-NORTHEAST AH-18	1		-003
	1410	S	H-SOUTHEAST AH-19	1		-004
	1420	S	H-SOUTH AH-20	1		-005
	1435	S	H-SOUTH AH-21	1		-006
06/24	1445	S	H-SOUTHWEST AH-22	1		-007
						-008

Date: 07/04 Time: 0800 Relinquished by: San Jun
 Date: 7/10/20 Time: 1900 Relinquished by: Aluminum
 Received by: Aluminum Date: 7/9/20 Time: 1000
 Received by: Leah Date: 7/10/20 Time: 0935



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

Analysis Request

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

Remarks:



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

April 19, 2021

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2104533

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/13/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-1 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 9:35:00 AM

Lab ID: 2104533-001

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	160	59		mg/Kg	20	4/15/2021 12:34:59 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/14/2021 2:12:35 PM	59380
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2021 2:12:35 PM	59380
Surr: DNOP	80.4	70-130		%Rec	1	4/14/2021 2:12:35 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 2:23:15 PM	59375
Surr: BFB	99.9	70-130		%Rec	1	4/14/2021 2:23:15 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 2:23:15 PM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 2:23:15 PM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 2:23:15 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 2:23:15 PM	59375
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	4/14/2021 2:23:15 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-2 East Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 9:50:00 AM

Lab ID: 2104533-002

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	280	60		mg/Kg	20	4/15/2021 1:12:13 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/14/2021 2:25:32 PM	59380
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/14/2021 2:25:32 PM	59380
Surr: DNOP	83.9	70-130		%Rec	1	4/14/2021 2:25:32 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/14/2021 3:33:58 PM	59375
Surr: BFB	105	70-130		%Rec	1	4/14/2021 3:33:58 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 3:33:58 PM	59375
Toluene	ND	0.049		mg/Kg	1	4/14/2021 3:33:58 PM	59375
Ethylbenzene	ND	0.049		mg/Kg	1	4/14/2021 3:33:58 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 3:33:58 PM	59375
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/14/2021 3:33:58 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-3 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 10:10:00 AM

Lab ID: 2104533-003

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	150	60		mg/Kg	20	4/15/2021 1:24:38 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/14/2021 2:37:58 PM	59380
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2021 2:37:58 PM	59380
Surr: DNOP	80.1	70-130		%Rec	1	4/14/2021 2:37:58 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/14/2021 3:57:31 PM	59375
Surr: BFB	103	70-130		%Rec	1	4/14/2021 3:57:31 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/14/2021 3:57:31 PM	59375
Toluene	ND	0.049		mg/Kg	1	4/14/2021 3:57:31 PM	59375
Ethylbenzene	ND	0.049		mg/Kg	1	4/14/2021 3:57:31 PM	59375
Xylenes, Total	ND	0.098		mg/Kg	1	4/14/2021 3:57:31 PM	59375
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	4/14/2021 3:57:31 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-4 East Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 10:20:00 AM

Lab ID: 2104533-004

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	180	60		mg/Kg	20	4/15/2021 1:37:02 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/14/2021 2:50:56 PM	59380
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2021 2:50:56 PM	59380
Surr: DNOP	83.9	70-130		%Rec	1	4/14/2021 2:50:56 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/14/2021 4:21:04 PM	59375
Surr: BFB	103	70-130		%Rec	1	4/14/2021 4:21:04 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 4:21:04 PM	59375
Toluene	ND	0.049		mg/Kg	1	4/14/2021 4:21:04 PM	59375
Ethylbenzene	ND	0.049		mg/Kg	1	4/14/2021 4:21:04 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 4:21:04 PM	59375
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	4/14/2021 4:21:04 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-5 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 11:00:00 AM

Lab ID: 2104533-005

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	3200	150		mg/Kg	50	4/16/2021 8:33:07 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	4/14/2021 5:11:38 PM	59380
Motor Oil Range Organics (MRO)	67	50		mg/Kg	1	4/14/2021 5:11:38 PM	59380
Surr: DNOP	90.9	70-130		%Rec	1	4/14/2021 5:11:38 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 4:44:41 PM	59375
Surr: BFB	101	70-130		%Rec	1	4/14/2021 4:44:41 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 4:44:41 PM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 4:44:41 PM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 4:44:41 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 4:44:41 PM	59375
Surr: 4-Bromofluorobenzene	96.7	70-130		%Rec	1	4/14/2021 4:44:41 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-6 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 11:20:00 AM

Lab ID: 2104533-006

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	290	60		mg/Kg	20	4/15/2021 2:01:51 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	4/14/2021 3:16:31 PM	59380
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/14/2021 3:16:31 PM	59380
Surr: DNOP	85.5	70-130		%Rec	1	4/14/2021 3:16:31 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/14/2021 5:08:10 PM	59375
Surr: BFB	103	70-130		%Rec	1	4/14/2021 5:08:10 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 5:08:10 PM	59375
Toluene	ND	0.049		mg/Kg	1	4/14/2021 5:08:10 PM	59375
Ethylbenzene	ND	0.049		mg/Kg	1	4/14/2021 5:08:10 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 5:08:10 PM	59375
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	4/14/2021 5:08:10 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-7 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 11:50:00 AM

Lab ID: 2104533-007

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	3100	150		mg/Kg	50	4/16/2021 1:06:19 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	21	9.6		mg/Kg	1	4/14/2021 4:46:01 PM	59380
Motor Oil Range Organics (MRO)	69	48		mg/Kg	1	4/14/2021 4:46:01 PM	59380
Surr: DNOP	92.8	70-130		%Rec	1	4/14/2021 4:46:01 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/14/2021 5:31:38 PM	59375
Surr: BFB	99.2	70-130		%Rec	1	4/14/2021 5:31:38 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/14/2021 5:31:38 PM	59375
Toluene	ND	0.048		mg/Kg	1	4/14/2021 5:31:38 PM	59375
Ethylbenzene	ND	0.048		mg/Kg	1	4/14/2021 5:31:38 PM	59375
Xylenes, Total	ND	0.097		mg/Kg	1	4/14/2021 5:31:38 PM	59375
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	1	4/14/2021 5:31:38 PM	59375

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

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

Analytical Report

Lab Order **2104533**

Date Reported: **4/19/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-8 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/8/2021 12:30:00 PM

Lab ID: 2104533-008

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	960	60		mg/Kg	20	4/15/2021 2:26:40 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/14/2021 3:42:04 PM	59380
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/14/2021 3:42:04 PM	59380
Surr: DNOP	87.8	70-130		%Rec	1	4/14/2021 3:42:04 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 5:55:11 PM	59375
Surr: BFB	103	70-130		%Rec	1	4/14/2021 5:55:11 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 5:55:11 PM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 5:55:11 PM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 5:55:11 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 5:55:11 PM	59375
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	1	4/14/2021 5:55:11 PM	59375

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104533

19-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59422	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/15/2021	SeqNo: 2718560	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59422	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/15/2021	SeqNo: 2718561	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Sample ID: MB-59422	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/16/2021	SeqNo: 2718644	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59422	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/16/2021	SeqNo: 2718645	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#: 2104533

19-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59380	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716681	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	73.5	68.9	141			
Surr: DNOP	4.1		5.000		83.0	70	130			

Sample ID: MB-59380	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2717367	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104533

19-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: mb-59375	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716895	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	70	130			

Sample ID: lcs-59375	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716896	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	78.6	131			
Surr: BFB	1100		1000		114	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104533

19-Apr-21

Client: Safety & Environmental Solutions

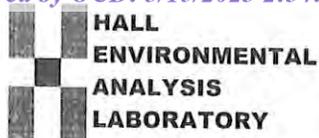
Project: Devon Remuda Basin SWD 1

Sample ID: mb-59375	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716915	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	70	130			

Sample ID: LCS-59375	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716916	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.3	80	120			
Toluene	0.94	0.050	1.000	0	94.2	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	70	130			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions Work Order Number: 2104533 RcptNo: 1

Received By: Juan Rojas 4/13/2021 7:35:00 AM [Signature]

Completed By: Cheyenne Cason 4/13/2021 8:02:05 AM

Reviewed By: SGL 4/13/21

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: 4/13/21 (<2 or >12 unless noted) Adjusted? Checked by:

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, 0.1, Good, [], [], [], []

Chain-of-Custody Record

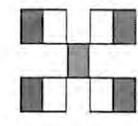
Client: Safety & Environmental Solutions
 Mailing Address: 703 E Clanton
Albany NM 88240
 Phone #: 575-397-0510
 email or Fax#: _____
 QA/QC Package: _____
 Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other
 EDD (Type) _____

Turn-Around Time: 3 day
 Standard Rush
 Project Name: Devon
Remediation SWA I
 Project #: DEV-20-002

Project Manager: Allen, Bob
 Sampler: Jim Jones
 On Ice: Yes No
 # of Coolers: 1

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	Cooler Temp (including CF):
04/08	0935	S	SP-1 Bottom 6"	1	None	2104533	19.0 ± 1.8 (°C)
	0950	S	SP-2 East wall	1	None	001	
	1010	S	SP-3 Bottom 6"	1	None	002	
	1020	S	SP-4 East wall	1	None	003	
	1100	S	SP-5 Bottom 6"	1	None	004	
	1120	S	SP-6 South Wall	1	None	005	
	1150	S	SP-7 Bottom 6"	1	None	006	
04/08	1230	S	SP-8 Bottom 6"	1	None	007	
						008	

Relinquished by: Jim Jones Date: 04/12 Time: 1600
 Relinquished by: Jim Jones Date: 4/17/21 Time: 1900
 Received by: Jim Jones Date: 4/12/21 Time: 1600
 Received by: Jim Jones Date: 4/13/21 Time: 7:35



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

Analysis Request

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

Remarks:



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

April 16, 2021

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

RE: Devon Remuda Basin SWD #1

OrderNo.: 2104531

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/13/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104531**

Date Reported: **4/16/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-9 South Wall

Project: Devon Remuda Basin SWD #1

Collection Date: 4/9/2021 10:20:00 AM

Lab ID: 2104531-001

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	290	60		mg/Kg	20	4/15/2021 11:45:21 AM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/14/2021 12:57:10 PM	59380
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2021 12:57:10 PM	59380
Surr: DNOP	87.5	70-130		%Rec	1	4/14/2021 12:57:10 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 11:13:24 AM	59375
Surr: BFB	104	70-130		%Rec	1	4/14/2021 11:13:24 AM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 11:13:24 AM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 11:13:24 AM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 11:13:24 AM	59375
Xylenes, Total	ND	0.10		mg/Kg	1	4/14/2021 11:13:24 AM	59375
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	4/14/2021 11:13:24 AM	59375

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

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

Analytical Report

Lab Order **2104531**

Date Reported: **4/16/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-10 South Wall

Project: Devon Remuda Basin SWD #1

Collection Date: 4/9/2021 10:45:00 AM

Lab ID: 2104531-002

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	310	60		mg/Kg	20	4/15/2021 11:57:45 AM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/14/2021 1:34:44 PM	59380
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/14/2021 1:34:44 PM	59380
Surr: DNOP	70.6	70-130		%Rec	1	4/14/2021 1:34:44 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 12:24:59 PM	59375
Surr: BFB	101	70-130		%Rec	1	4/14/2021 12:24:59 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 12:24:59 PM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 12:24:59 PM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 12:24:59 PM	59375
Xylenes, Total	ND	0.10		mg/Kg	1	4/14/2021 12:24:59 PM	59375
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	4/14/2021 12:24:59 PM	59375

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

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

Analytical Report

Lab Order **2104531**

Date Reported: **4/16/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-11 Bottom 6"

Project: Devon Remuda Basin SWD #1

Collection Date: 4/9/2021 11:05:00 AM

Lab ID: 2104531-003

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	990	60		mg/Kg	20	4/15/2021 12:10:09 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/14/2021 1:47:36 PM	59380
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/14/2021 1:47:36 PM	59380
Surr: DNOP	78.9	70-130		%Rec	1	4/14/2021 1:47:36 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/14/2021 1:35:48 PM	59375
Surr: BFB	106	70-130		%Rec	1	4/14/2021 1:35:48 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 1:35:48 PM	59375
Toluene	ND	0.050		mg/Kg	1	4/14/2021 1:35:48 PM	59375
Ethylbenzene	ND	0.050		mg/Kg	1	4/14/2021 1:35:48 PM	59375
Xylenes, Total	ND	0.099		mg/Kg	1	4/14/2021 1:35:48 PM	59375
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	4/14/2021 1:35:48 PM	59375

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

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

Analytical Report

Lab Order **2104531**

Date Reported: **4/16/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-12 Bottom 6"

Project: Devon Remuda Basin SWD #1

Collection Date: 4/9/2021 11:30:00 AM

Lab ID: 2104531-004

Matrix: SOIL

Received Date: 4/13/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	940	60		mg/Kg	20	4/15/2021 12:22:34 PM	59422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/14/2021 2:00:00 PM	59380
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/14/2021 2:00:00 PM	59380
Surr: DNOP	81.5	70-130		%Rec	1	4/14/2021 2:00:00 PM	59380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/14/2021 1:59:23 PM	59375
Surr: BFB	105	70-130		%Rec	1	4/14/2021 1:59:23 PM	59375
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/14/2021 1:59:23 PM	59375
Toluene	ND	0.049		mg/Kg	1	4/14/2021 1:59:23 PM	59375
Ethylbenzene	ND	0.049		mg/Kg	1	4/14/2021 1:59:23 PM	59375
Xylenes, Total	ND	0.098		mg/Kg	1	4/14/2021 1:59:23 PM	59375
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	4/14/2021 1:59:23 PM	59375

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104531

16-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD #1

Sample ID: MB-59422	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/15/2021	SeqNo: 2718560	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59422	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/15/2021	SeqNo: 2718561	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Sample ID: MB-59422	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/16/2021	SeqNo: 2718644	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59422	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59422	RunNo: 76704								
Prep Date: 4/15/2021	Analysis Date: 4/16/2021	SeqNo: 2718645	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#: 2104531

16-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD #1

Sample ID: MB-59396	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59396	RunNo: 76662								
Prep Date: 4/14/2021	Analysis Date: 4/14/2021	SeqNo: 2716411	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.0	70	130			

Sample ID: LCS-59396	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59396	RunNo: 76662								
Prep Date: 4/14/2021	Analysis Date: 4/14/2021	SeqNo: 2716412	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.4	70	130			

Sample ID: LCS-59380	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716681	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	73.5	68.9	141			
Surr: DNOP	4.1		5.000		83.0	70	130			

Sample ID: 2104531-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-9 South Wall	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716683	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.7	48.50	0	84.1	15	184			
Surr: DNOP	3.9		4.850		79.7	70	130			

Sample ID: MB-59380	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2717367	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.1	70	130			

Sample ID: 2104531-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-9 South Wall	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2719329	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.3	46.60	0	77.8	15	184	11.7	23.9	

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#: 2104531

16-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD #1

Sample ID: 2104531-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-9 South Wall	Batch ID: 59380	RunNo: 76662								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2719329 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		4.660		79.5	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104531

16-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD #1

Sample ID: mb-59375	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 59375		RunNo: 76660							
Prep Date: 4/13/2021	Analysis Date: 4/14/2021		SeqNo: 2716895		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	70	130			

Sample ID: lcs-59375	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 59375		RunNo: 76660							
Prep Date: 4/13/2021	Analysis Date: 4/14/2021		SeqNo: 2716896		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	78.6	131			
Surr: BFB	1100		1000		114	70	130			

Sample ID: 2104531-002ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SP-10 South Wall	Batch ID: 59375		RunNo: 76660							
Prep Date: 4/13/2021	Analysis Date: 4/14/2021		SeqNo: 2716899		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.32	0	112	61.3	114			
Surr: BFB	1100		972.8		113	70	130			

Sample ID: 2104531-002amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SP-10 South Wall	Batch ID: 59375		RunNo: 76660							
Prep Date: 4/13/2021	Analysis Date: 4/14/2021		SeqNo: 2716900		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.9	24.61	0	115	61.3	114	3.81	20	S
Surr: BFB	1100		984.3		114	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104531

16-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD #1

Sample ID: mb-59375	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716915	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	70	130			

Sample ID: LCS-59375	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716916	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.3	80	120			
Toluene	0.94	0.050	1.000	0	94.2	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	70	130			

Sample ID: 2104531-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-9 South Wall	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716918	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9785	0	98.8	76.3	120			
Toluene	1.0	0.049	0.9785	0	102	78.5	120			
Ethylbenzene	1.0	0.049	0.9785	0	102	78.1	124			
Xylenes, Total	3.0	0.098	2.935	0	101	79.3	125			
Surr: 4-Bromofluorobenzene	1.0		0.9785		102	70	130			

Sample ID: 2104531-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-9 South Wall	Batch ID: 59375	RunNo: 76660								
Prep Date: 4/13/2021	Analysis Date: 4/14/2021	SeqNo: 2716919	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9814	0	101	80	120	2.05	20	
Toluene	1.0	0.049	0.9814	0	104	80	120	2.13	20	
Ethylbenzene	1.0	0.049	0.9814	0	104	80	120	2.20	20	
Xylenes, Total	3.1	0.098	2.944	0	104	80	120	2.91	20	
Surr: 4-Bromofluorobenzene	0.99		0.9814		101	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions

Work Order Number: 2104531

RcptNo: 1

Received By: Juan Rojas

4/13/2021 7:35:00 AM

Juan Rojas signature

Completed By: Cheyenne Cason

4/13/2021 7:55:58 AM

Reviewed By: SGL 4/13/21

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: IO 4/13/21 (<2 or >12 unless noted) Adjusted? Checked by:

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, 0.1, Good, [], [], []

Chain-of-Custody Record

Client: Safety & Environmental Solutions
 Mailing Address: 703 E. Clinton Hobbs N.M. 88240
 Phone #: 575-397-0570
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other EDD (Type) _____

Turn-Around Time: 5 days
 Standard Rush
 Project Name: Denton Remediation SWD #1
 Project #: Dev-20-002

Project Manager: Allen, Bob
 Sampler: Sam Smith
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CP): 1.9-0.1=1.8 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/04	1020	S	SP-9 Sewer	1	None	204531
6	1045	S	SP-10 Sewer	1	None	001
7	1105	S	SP-11 Bottom 6"	1	None	002
04/09	1130	S	SP-12 Bottom 6"	1	None	003
						004



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

Analysis Request

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

Received by: _____ Date: _____ Time: _____
 Relinquished by: Sam Smith Date: 04/12/2023 Time: 1600
 Received by: Sam Smith Date: 04/12/2023 Time: 1900

Remarks:



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

April 20, 2021

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2104743

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/16/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-13 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 9:55:00 AM

Lab ID: 2104743-001

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	60		mg/Kg	20	4/19/2021 8:49:17 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/17/2021 4:59:01 PM	59459
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/17/2021 4:59:01 PM	59459
Surr: DNOP	75.9	70-130		%Rec	1	4/17/2021 4:59:01 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/18/2021	59455
Surr: BFB	95.1	70-130		%Rec	1	4/18/2021	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021	59455
Toluene	ND	0.049		mg/Kg	1	4/18/2021	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/18/2021	59455
Xylenes, Total	ND	0.097		mg/Kg	1	4/18/2021	59455
Surr: 4-Bromofluorobenzene	80.3	70-130		%Rec	1	4/18/2021	59455

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

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

Analytical Report

Lab Order 2104743

Date Reported: 4/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-14 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 10:15:00 AM

Lab ID: 2104743-002

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1200	59		mg/Kg	20	4/19/2021 9:26:30 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/17/2021 5:46:51 PM	59459
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/17/2021 5:46:51 PM	59459
Surr: DNOP	81.6	70-130		%Rec	1	4/17/2021 5:46:51 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/18/2021 12:20:00 AM	59455
Surr: BFB	97.4	70-130		%Rec	1	4/18/2021 12:20:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021 12:20:00 AM	59455
Toluene	ND	0.049		mg/Kg	1	4/18/2021 12:20:00 AM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/18/2021 12:20:00 AM	59455
Xylenes, Total	ND	0.098		mg/Kg	1	4/18/2021 12:20:00 AM	59455
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	4/18/2021 12:20:00 AM	59455

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

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

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-15 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 10:30:00 AM

Lab ID: 2104743-003

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	100	61		mg/Kg	20	4/19/2021 9:38:54 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/17/2021 6:10:40 PM	59459
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/17/2021 6:10:40 PM	59459
Surr: DNOP	76.1	70-130		%Rec	1	4/17/2021 6:10:40 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/18/2021 12:40:00 AM	59455
Surr: BFB	99.6	70-130		%Rec	1	4/18/2021 12:40:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021 12:40:00 AM	59455
Toluene	ND	0.048		mg/Kg	1	4/18/2021 12:40:00 AM	59455
Ethylbenzene	ND	0.048		mg/Kg	1	4/18/2021 12:40:00 AM	59455
Xylenes, Total	ND	0.097		mg/Kg	1	4/18/2021 12:40:00 AM	59455
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	4/18/2021 12:40:00 AM	59455

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

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

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-16 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 11:05:00 AM

Lab ID: 2104743-004

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1400	60		mg/Kg	20	4/19/2021 9:51:18 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	7.2		mg/Kg	1	4/17/2021 6:34:32 PM	59459
Motor Oil Range Organics (MRO)	ND	36		mg/Kg	1	4/17/2021 6:34:32 PM	59459
Surr: DNOP	83.4	70-130		%Rec	1	4/17/2021 6:34:32 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/18/2021 1:00:00 AM	59455
Surr: BFB	101	70-130		%Rec	1	4/18/2021 1:00:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021 1:00:00 AM	59455
Toluene	ND	0.047		mg/Kg	1	4/18/2021 1:00:00 AM	59455
Ethylbenzene	ND	0.047		mg/Kg	1	4/18/2021 1:00:00 AM	59455
Xylenes, Total	ND	0.094		mg/Kg	1	4/18/2021 1:00:00 AM	59455
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	1	4/18/2021 1:00:00 AM	59455

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

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

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-17 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 11:40:00 AM

Lab ID: 2104743-005

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	310	60		mg/Kg	20	4/19/2021 10:03:43 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/17/2021 7:22:10 PM	59459
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/17/2021 7:22:10 PM	59459
Surr: DNOP	83.4	70-130		%Rec	1	4/17/2021 7:22:10 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/18/2021 1:20:00 AM	59455
Surr: BFB	104	70-130		%Rec	1	4/18/2021 1:20:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/18/2021 1:20:00 AM	59455
Toluene	ND	0.049		mg/Kg	1	4/18/2021 1:20:00 AM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/18/2021 1:20:00 AM	59455
Xylenes, Total	ND	0.099		mg/Kg	1	4/18/2021 1:20:00 AM	59455
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	4/18/2021 1:20:00 AM	59455

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

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

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-18 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 12:00:00 PM

Lab ID: 2104743-006

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	60		mg/Kg	20	4/19/2021 10:16:07 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/17/2021 7:45:58 PM	59459
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/17/2021 7:45:58 PM	59459
Surr: DNOP	84.4	70-130		%Rec	1	4/17/2021 7:45:58 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/18/2021 2:39:00 AM	59455
Surr: BFB	102	70-130		%Rec	1	4/18/2021 2:39:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021 2:39:00 AM	59455
Toluene	ND	0.049		mg/Kg	1	4/18/2021 2:39:00 AM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/18/2021 2:39:00 AM	59455
Xylenes, Total	ND	0.097		mg/Kg	1	4/18/2021 2:39:00 AM	59455
Surr: 4-Bromofluorobenzene	86.7	70-130		%Rec	1	4/18/2021 2:39:00 AM	59455

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

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

Analytical Report

Lab Order **2104743**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-19 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/12/2021 1:10:00 PM

Lab ID: 2104743-007

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	460	61		mg/Kg	20	4/19/2021 10:53:21 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/17/2021 8:09:41 PM	59459
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/17/2021 8:09:41 PM	59459
Surr: DNOP	89.6	70-130		%Rec	1	4/17/2021 8:09:41 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/18/2021 2:59:00 AM	59455
Surr: BFB	102	70-130		%Rec	1	4/18/2021 2:59:00 AM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/18/2021 2:59:00 AM	59455
Toluene	ND	0.048		mg/Kg	1	4/18/2021 2:59:00 AM	59455
Ethylbenzene	ND	0.048		mg/Kg	1	4/18/2021 2:59:00 AM	59455
Xylenes, Total	ND	0.096		mg/Kg	1	4/18/2021 2:59:00 AM	59455
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	4/18/2021 2:59:00 AM	59455

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104743

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59480	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59480	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721273	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59480	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59480	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721274	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	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#: 2104743

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59459	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720999	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		92.9	70	130			

Sample ID: LCS-59459	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2721001	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.1	68.9	141			
Surr: DNOP	3.8		5.000		76.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104743

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59455	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720133	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	78.6	131			
Surr: BFB	1100		1000		112	70	130			

Sample ID: MB-59455	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720134	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104743

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59455	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720198	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.0	70	130			

Sample ID: LCS-59455	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720260	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.0	80	120			
Toluene	0.89	0.050	1.000	0	89.3	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.5	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		84.3	70	130			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: **Safety & Environmental Solutions** Work Order Number: **2104743** RcptNo: 1

Received By: **Juan Rojas** 4/16/2021 7:35:00 AM *Juan Rojas*
 Completed By: **Cheyenne Cason** 4/16/2021 8:02:36 AM *Cason*
 Reviewed By: **SPA 4.16.21**

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.)

IO
4/16/21

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good				



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

April 20, 2021

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2104742

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/16/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-20 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 10:00:00 AM

Lab ID: 2104742-001

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1300	60		mg/Kg	20	4/19/2021 5:30:49 PM	59476
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.0		mg/Kg	1	4/17/2021 12:12:07 PM	59459
Motor Oil Range Organics (MRO)	ND	40		mg/Kg	1	4/17/2021 12:12:07 PM	59459
Surr: DNOP	96.3	70-130		%Rec	1	4/17/2021 12:12:07 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/17/2021 7:43:00 PM	59455
Surr: BFB	98.8	70-130		%Rec	1	4/17/2021 7:43:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.023		mg/Kg	1	4/17/2021 7:43:00 PM	59455
Toluene	ND	0.047		mg/Kg	1	4/17/2021 7:43:00 PM	59455
Ethylbenzene	ND	0.047		mg/Kg	1	4/17/2021 7:43:00 PM	59455
Xylenes, Total	ND	0.094		mg/Kg	1	4/17/2021 7:43:00 PM	59455
Surr: 4-Bromofluorobenzene	84.6	70-130		%Rec	1	4/17/2021 7:43:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-21 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 10:25:00 AM

Lab ID: 2104742-002

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	4/19/2021 6:32:51 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/17/2021 1:47:16 PM	59459
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/17/2021 1:47:16 PM	59459
Surr: DNOP	86.1	70-130		%Rec	1	4/17/2021 1:47:16 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/17/2021 8:42:00 PM	59455
Surr: BFB	97.6	70-130		%Rec	1	4/17/2021 8:42:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/17/2021 8:42:00 PM	59455
Toluene	ND	0.050		mg/Kg	1	4/17/2021 8:42:00 PM	59455
Ethylbenzene	ND	0.050		mg/Kg	1	4/17/2021 8:42:00 PM	59455
Xylenes, Total	ND	0.099		mg/Kg	1	4/17/2021 8:42:00 PM	59455
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	4/17/2021 8:42:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-22 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 11:00:00 AM

Lab ID: 2104742-003

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1400	60		mg/Kg	20	4/19/2021 6:45:15 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/17/2021 2:11:09 PM	59459
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/17/2021 2:11:09 PM	59459
Surr: DNOP	83.2	70-130		%Rec	1	4/17/2021 2:11:09 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/17/2021 9:02:00 PM	59455
Surr: BFB	96.5	70-130		%Rec	1	4/17/2021 9:02:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/17/2021 9:02:00 PM	59455
Toluene	ND	0.049		mg/Kg	1	4/17/2021 9:02:00 PM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/17/2021 9:02:00 PM	59455
Xylenes, Total	ND	0.099		mg/Kg	1	4/17/2021 9:02:00 PM	59455
Surr: 4-Bromofluorobenzene	81.4	70-130		%Rec	1	4/17/2021 9:02:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-23 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 11:20:00 AM

Lab ID: 2104742-004

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	61		mg/Kg	20	4/19/2021 6:57:39 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/17/2021 2:35:07 PM	59459
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/17/2021 2:35:07 PM	59459
Surr: DNOP	79.1	70-130		%Rec	1	4/17/2021 2:35:07 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/17/2021 10:22:00 PM	59455
Surr: BFB	97.4	70-130		%Rec	1	4/17/2021 10:22:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.023		mg/Kg	1	4/17/2021 10:22:00 PM	59455
Toluene	ND	0.047		mg/Kg	1	4/17/2021 10:22:00 PM	59455
Ethylbenzene	ND	0.047		mg/Kg	1	4/17/2021 10:22:00 PM	59455
Xylenes, Total	ND	0.094		mg/Kg	1	4/17/2021 10:22:00 PM	59455
Surr: 4-Bromofluorobenzene	83.0	70-130		%Rec	1	4/17/2021 10:22:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-24 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 11:50:00 AM

Lab ID: 2104742-005

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1300	60		mg/Kg	20	4/19/2021 7:10:04 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	4/17/2021 2:59:06 PM	59459
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	4/17/2021 2:59:06 PM	59459
Surr: DNOP	86.0	70-130		%Rec	1	4/17/2021 2:59:06 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/17/2021 10:41:00 PM	59455
Surr: BFB	96.8	70-130		%Rec	1	4/17/2021 10:41:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/17/2021 10:41:00 PM	59455
Toluene	ND	0.049		mg/Kg	1	4/17/2021 10:41:00 PM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/17/2021 10:41:00 PM	59455
Xylenes, Total	ND	0.098		mg/Kg	1	4/17/2021 10:41:00 PM	59455
Surr: 4-Bromofluorobenzene	83.7	70-130		%Rec	1	4/17/2021 10:41:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-25 East Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 12:20:00 PM

Lab ID: 2104742-006

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	110	60		mg/Kg	20	4/19/2021 7:22:28 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	7.3		mg/Kg	1	4/17/2021 3:23:05 PM	59459
Motor Oil Range Organics (MRO)	ND	37		mg/Kg	1	4/17/2021 3:23:05 PM	59459
Surr: DNOP	82.0	70-130		%Rec	1	4/17/2021 3:23:05 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2021 11:01:00 PM	59455
Surr: BFB	101	70-130		%Rec	1	4/17/2021 11:01:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/17/2021 11:01:00 PM	59455
Toluene	ND	0.048		mg/Kg	1	4/17/2021 11:01:00 PM	59455
Ethylbenzene	ND	0.048		mg/Kg	1	4/17/2021 11:01:00 PM	59455
Xylenes, Total	ND	0.096		mg/Kg	1	4/17/2021 11:01:00 PM	59455
Surr: 4-Bromofluorobenzene	84.2	70-130		%Rec	1	4/17/2021 11:01:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-26 Bottom 6"

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 12:45:00 PM

Lab ID: 2104742-007

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1300	61		mg/Kg	20	4/19/2021 7:34:52 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/17/2021 3:47:04 PM	59459
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/17/2021 3:47:04 PM	59459
Surr: DNOP	84.4	70-130		%Rec	1	4/17/2021 3:47:04 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2021 11:21:00 PM	59455
Surr: BFB	97.0	70-130		%Rec	1	4/17/2021 11:21:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/17/2021 11:21:00 PM	59455
Toluene	ND	0.048		mg/Kg	1	4/17/2021 11:21:00 PM	59455
Ethylbenzene	ND	0.048		mg/Kg	1	4/17/2021 11:21:00 PM	59455
Xylenes, Total	ND	0.097		mg/Kg	1	4/17/2021 11:21:00 PM	59455
Surr: 4-Bromofluorobenzene	84.3	70-130		%Rec	1	4/17/2021 11:21:00 PM	59455

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

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

Analytical Report

Lab Order **2104742**

Date Reported: **4/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-27 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/13/2021 1:05:00 PM

Lab ID: 2104742-008

Matrix: SOIL

Received Date: 4/16/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	110	60		mg/Kg	20	4/19/2021 7:47:16 PM	59480
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/17/2021 4:11:02 PM	59459
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/17/2021 4:11:02 PM	59459
Surr: DNOP	76.3	70-130		%Rec	1	4/17/2021 4:11:02 PM	59459
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/17/2021 11:41:00 PM	59455
Surr: BFB	97.3	70-130		%Rec	1	4/17/2021 11:41:00 PM	59455
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/17/2021 11:41:00 PM	59455
Toluene	ND	0.049		mg/Kg	1	4/17/2021 11:41:00 PM	59455
Ethylbenzene	ND	0.049		mg/Kg	1	4/17/2021 11:41:00 PM	59455
Xylenes, Total	ND	0.097		mg/Kg	1	4/17/2021 11:41:00 PM	59455
Surr: 4-Bromofluorobenzene	82.6	70-130		%Rec	1	4/17/2021 11:41:00 PM	59455

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104742

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59476	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59476	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721241	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59476	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59476	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721242	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Sample ID: MB-59480	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59480	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721273	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59480	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59480	RunNo: 76777								
Prep Date: 4/19/2021	Analysis Date: 4/19/2021	SeqNo: 2721274	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	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#: 2104742

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59459	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720999	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		92.9	70	130			

Sample ID: LCS-59459	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2721001	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.1	68.9	141			
Surr: DNOP	3.8		5.000		76.0	70	130			

Sample ID: 2104742-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-20 Bottom 6"	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2721004	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	29	8.2	40.82	0	71.1	15	184			
Surr: DNOP	3.3		4.082		79.9	70	130			

Sample ID: 2104742-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-20 Bottom 6"	Batch ID: 59459	RunNo: 76772								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2721005	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	8.5	42.74	0	73.1	15	184	7.32	23.9	
Surr: DNOP	3.6		4.274		85.0	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104742

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59455	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720133	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	78.6	131			
Surr: BFB	1100		1000		112	70	130			

Sample ID: MB-59455	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720134	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104742

20-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59455	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720198	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.0	70	130			

Sample ID: 2104742-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-20 Bottom 6"	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720201	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9930	0	94.4	76.3	120			
Toluene	0.94	0.050	0.9930	0	94.8	78.5	120			
Ethylbenzene	0.98	0.050	0.9930	0	98.6	78.1	124			
Xylenes, Total	3.0	0.099	2.979	0.07076	97.6	79.3	125			
Surr: 4-Bromofluorobenzene	0.83		0.9930		83.5	70	130			

Sample ID: 2104742-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-20 Bottom 6"	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720202	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9940	0	91.0	80	120	3.65	20	
Toluene	0.91	0.050	0.9940	0	91.6	80	120	3.42	20	
Ethylbenzene	0.94	0.050	0.9940	0	94.2	80	120	4.50	20	
Xylenes, Total	2.8	0.099	2.982	0.07076	90.8	80	120	6.92	20	
Surr: 4-Bromofluorobenzene	0.81		0.9940		82.0	70	130	0	0	

Sample ID: LCS-59455	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59455	RunNo: 76758								
Prep Date: 4/16/2021	Analysis Date: 4/17/2021	SeqNo: 2720260	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.0	80	120			
Toluene	0.89	0.050	1.000	0	89.3	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.5	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		84.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2104742
RcptNo: 1

Received By: Juan Rojas 4/16/2021 7:35:00 AM
Completed By: Cheyenne Cason 4/16/2021 7:50:53 AM
Reviewed By: SPA 4.16.21

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: TO 4/16/21
Adjusted?
Checked by:

Special Handling (if applicable)

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

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

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, 1.1, Good, [], [], []

Chain-of-Custody Record

Client: Safety & Environmental Solutions
 Mailing Address: 703 E. Clinton
6066 NW 88240
 Phone #: 575-397-0510
 email or Fax#:

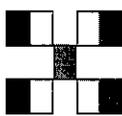
QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other
 EDD (Type)

Turn-Around Time: 5 Days
 Standard Rush
 Project Name: Devon
Remuda Basin SW 1
 Project #: Dev-20-002

Project Manager: Allen Bob
 Sampler: Sammy
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 2.6.1.1 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/13	1000	S	SP-20 Bottom 6"	1	None	2104742
	1025	S	SP-21 Water	1	None	001
	1100	S	SP-22 Bottom 6"	1	None	002
	1120	S	SP-23 Water	1	None	003
	1150	S	SP-24 Bottom 6"	1	None	004
04/13	1220	S	SP-25 Bottom 6"	1	None	005
	1245	S	SP-26 Bottom 6"	1	None	006
	1305	S	SP-27 Bottom 6"	1	None	007
						008

Date: 04/15 Time: 1600 Relinquished by: Sammy
 Date: 4/15/21 Time: 1900 Relinquished by: Allen



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

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

Remarks: Full Devon
Direct



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

April 30, 2021

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2104A77

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 16 sample(s) on 4/24/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-28 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 9:00:00 AM

Lab ID: 2104A77-001

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	230	60		mg/Kg	20	4/29/2021 1:07:52 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/27/2021 5:39:31 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 5:39:31 PM	59620
Surr: DNOP	93.8	70-130		%Rec	1	4/27/2021 5:39:31 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2021 3:53:46 AM	59619
Surr: BFB	104	70-130		%Rec	1	4/28/2021 3:53:46 AM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 3:53:46 AM	59619
Toluene	ND	0.050		mg/Kg	1	4/28/2021 3:53:46 AM	59619
Ethylbenzene	ND	0.050		mg/Kg	1	4/28/2021 3:53:46 AM	59619
Xylenes, Total	ND	0.10		mg/Kg	1	4/28/2021 3:53:46 AM	59619
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/28/2021 3:53:46 AM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-29 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 9:20:00 AM

Lab ID: 2104A77-002

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	230	60		mg/Kg	20	4/29/2021 1:45:05 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/27/2021 5:52:18 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 5:52:18 PM	59620
Surr: DNOP	99.5	70-130		%Rec	1	4/27/2021 5:52:18 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 4:17:36 AM	59619
Surr: BFB	106	70-130		%Rec	1	4/28/2021 4:17:36 AM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/28/2021 4:17:36 AM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 4:17:36 AM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 4:17:36 AM	59619
Xylenes, Total	ND	0.097		mg/Kg	1	4/28/2021 4:17:36 AM	59619
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/28/2021 4:17:36 AM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-30 East Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 9:45:00 AM

Lab ID: 2104A77-003

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	230	60		mg/Kg	20	4/29/2021 1:57:30 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/27/2021 6:05:10 PM	59620
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/27/2021 6:05:10 PM	59620
Surr: DNOP	86.8	70-130		%Rec	1	4/27/2021 6:05:10 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 4:41:26 AM	59619
Surr: BFB	106	70-130		%Rec	1	4/28/2021 4:41:26 AM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 4:41:26 AM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 4:41:26 AM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 4:41:26 AM	59619
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2021 4:41:26 AM	59619
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/28/2021 4:41:26 AM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-31 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 10:05:00 AM

Lab ID: 2104A77-004

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	69	59		mg/Kg	20	4/29/2021 2:09:54 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/27/2021 8:15:27 PM	59620
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/27/2021 8:15:27 PM	59620
Surr: DNOP	93.8	70-130		%Rec	1	4/27/2021 8:15:27 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2021 5:28:05 PM	59619
Surr: BFB	97.1	70-130		%Rec	1	4/28/2021 5:28:05 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 5:28:05 PM	59619
Toluene	ND	0.050		mg/Kg	1	4/28/2021 5:28:05 PM	59619
Ethylbenzene	ND	0.050		mg/Kg	1	4/28/2021 5:28:05 PM	59619
Xylenes, Total	ND	0.099		mg/Kg	1	4/28/2021 5:28:05 PM	59619
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/28/2021 5:28:05 PM	59619

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

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

Analytical Report

Lab Order 2104A77

Date Reported: 4/30/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-32 West Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 10:30:00 AM

Lab ID: 2104A77-005

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	73	60		mg/Kg	20	4/29/2021 2:22:19 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/27/2021 8:41:10 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 8:41:10 PM	59620
Surr: DNOP	86.9	70-130		%Rec	1	4/27/2021 8:41:10 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 5:51:04 PM	59619
Surr: BFB	96.5	70-130		%Rec	1	4/28/2021 5:51:04 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 5:51:04 PM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 5:51:04 PM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 5:51:04 PM	59619
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2021 5:51:04 PM	59619
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/28/2021 5:51:04 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-33 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 10:50:00 AM

Lab ID: 2104A77-006

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	71	60		mg/Kg	20	4/29/2021 2:34:43 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	4/27/2021 9:06:39 PM	59620
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/27/2021 9:06:39 PM	59620
Surr: DNOP	85.2	70-130		%Rec	1	4/27/2021 9:06:39 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 6:14:12 PM	59619
Surr: BFB	97.1	70-130		%Rec	1	4/28/2021 6:14:12 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 6:14:12 PM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 6:14:12 PM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 6:14:12 PM	59619
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2021 6:14:12 PM	59619
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/28/2021 6:14:12 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-34 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 11:20:00 AM

Lab ID: 2104A77-007

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	65	60		mg/Kg	20	4/29/2021 2:47:07 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/27/2021 6:31:06 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 6:31:06 PM	59620
Surr: DNOP	88.4	70-130		%Rec	1	4/27/2021 6:31:06 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 6:37:31 PM	59619
Surr: BFB	102	70-130		%Rec	1	4/28/2021 6:37:31 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 6:37:31 PM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 6:37:31 PM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 6:37:31 PM	59619
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2021 6:37:31 PM	59619
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	4/28/2021 6:37:31 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-35 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 1:20:00 PM

Lab ID: 2104A77-008

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	67	60		mg/Kg	20	4/29/2021 2:59:32 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/27/2021 6:57:11 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 6:57:11 PM	59620
Surr: DNOP	85.6	70-130		%Rec	1	4/27/2021 6:57:11 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2021 7:01:02 PM	59619
Surr: BFB	103	70-130		%Rec	1	4/28/2021 7:01:02 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 7:01:02 PM	59619
Toluene	ND	0.050		mg/Kg	1	4/28/2021 7:01:02 PM	59619
Ethylbenzene	ND	0.050		mg/Kg	1	4/28/2021 7:01:02 PM	59619
Xylenes, Total	ND	0.099		mg/Kg	1	4/28/2021 7:01:02 PM	59619
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	4/28/2021 7:01:02 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-36 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 1:40:00 PM

Lab ID: 2104A77-009

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	240	60		mg/Kg	20	4/29/2021 3:11:57 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/27/2021 6:18:05 PM	59620
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/27/2021 6:18:05 PM	59620
Surr: DNOP	83.7	70-130		%Rec	1	4/27/2021 6:18:05 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2021 7:24:36 PM	59619
Surr: BFB	102	70-130		%Rec	1	4/28/2021 7:24:36 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 7:24:36 PM	59619
Toluene	ND	0.049		mg/Kg	1	4/28/2021 7:24:36 PM	59619
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2021 7:24:36 PM	59619
Xylenes, Total	ND	0.099		mg/Kg	1	4/28/2021 7:24:36 PM	59619
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	4/28/2021 7:24:36 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-37 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/22/2021 1:50:00 PM

Lab ID: 2104A77-010

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	66	60		mg/Kg	20	4/29/2021 3:24:22 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/27/2021 7:23:23 PM	59620
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/27/2021 7:23:23 PM	59620
Surr: DNOP	102	70-130		%Rec	1	4/27/2021 7:23:23 PM	59620
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/28/2021 7:48:08 PM	59619
Surr: BFB	102	70-130		%Rec	1	4/28/2021 7:48:08 PM	59619
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/28/2021 7:48:08 PM	59619
Toluene	ND	0.050		mg/Kg	1	4/28/2021 7:48:08 PM	59619
Ethylbenzene	ND	0.050		mg/Kg	1	4/28/2021 7:48:08 PM	59619
Xylenes, Total	ND	0.099		mg/Kg	1	4/28/2021 7:48:08 PM	59619
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	4/28/2021 7:48:08 PM	59619

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-38 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 9:20:00 AM

Lab ID: 2104A77-011

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	440	59		mg/Kg	20	4/29/2021 3:36:46 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/27/2021 7:49:30 PM	59638
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/27/2021 7:49:30 PM	59638
Surr: DNOP	73.8	70-130		%Rec	1	4/27/2021 7:49:30 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/28/2021 8:11:46 PM	59631
Surr: BFB	105	70-130		%Rec	1	4/28/2021 8:11:46 PM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/28/2021 8:11:46 PM	59631
Toluene	ND	0.046		mg/Kg	1	4/28/2021 8:11:46 PM	59631
Ethylbenzene	ND	0.046		mg/Kg	1	4/28/2021 8:11:46 PM	59631
Xylenes, Total	ND	0.092		mg/Kg	1	4/28/2021 8:11:46 PM	59631
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/28/2021 8:11:46 PM	59631

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-39 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 9:40:00 AM

Lab ID: 2104A77-012

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	440	60		mg/Kg	20	4/29/2021 4:14:00 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/27/2021 7:59:18 PM	59638
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/27/2021 7:59:18 PM	59638
Surr: DNOP	65.1	70-130	S	%Rec	1	4/27/2021 7:59:18 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/28/2021 9:22:21 PM	59631
Surr: BFB	104	70-130		%Rec	1	4/28/2021 9:22:21 PM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/28/2021 9:22:21 PM	59631
Toluene	ND	0.048		mg/Kg	1	4/28/2021 9:22:21 PM	59631
Ethylbenzene	ND	0.048		mg/Kg	1	4/28/2021 9:22:21 PM	59631
Xylenes, Total	ND	0.096		mg/Kg	1	4/28/2021 9:22:21 PM	59631
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/28/2021 9:22:21 PM	59631

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-40 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 10:15:00 AM

Lab ID: 2104A77-013

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	460	59		mg/Kg	20	4/29/2021 4:26:24 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/27/2021 8:09:04 PM	59638
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/27/2021 8:09:04 PM	59638
Surr: DNOP	68.2	70-130	S	%Rec	1	4/27/2021 8:09:04 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2021 11:20:06 PM	59631
Surr: BFB	104	70-130		%Rec	1	4/28/2021 11:20:06 PM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/28/2021 11:20:06 PM	59631
Toluene	ND	0.047		mg/Kg	1	4/28/2021 11:20:06 PM	59631
Ethylbenzene	ND	0.047		mg/Kg	1	4/28/2021 11:20:06 PM	59631
Xylenes, Total	ND	0.094		mg/Kg	1	4/28/2021 11:20:06 PM	59631
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/28/2021 11:20:06 PM	59631

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-41 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 10:40:00 AM

Lab ID: 2104A77-014

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	480	60		mg/Kg	20	4/29/2021 4:38:48 AM	59689
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/27/2021 8:18:48 PM	59638
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/27/2021 8:18:48 PM	59638
Surr: DNOP	66.7	70-130	S	%Rec	1	4/27/2021 8:18:48 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/28/2021 11:43:40 PM	59631
Surr: BFB	105	70-130		%Rec	1	4/28/2021 11:43:40 PM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/28/2021 11:43:40 PM	59631
Toluene	ND	0.048		mg/Kg	1	4/28/2021 11:43:40 PM	59631
Ethylbenzene	ND	0.048		mg/Kg	1	4/28/2021 11:43:40 PM	59631
Xylenes, Total	ND	0.095		mg/Kg	1	4/28/2021 11:43:40 PM	59631
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/28/2021 11:43:40 PM	59631

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-42 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 11:05:00 AM

Lab ID: 2104A77-015

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	230	61		mg/Kg	20	4/29/2021 2:51:06 PM	59700
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/27/2021 8:28:31 PM	59638
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/27/2021 8:28:31 PM	59638
Surr: DNOP	62.1	70-130	S	%Rec	1	4/27/2021 8:28:31 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/29/2021 12:07:14 AM	59631
Surr: BFB	104	70-130		%Rec	1	4/29/2021 12:07:14 AM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/29/2021 12:07:14 AM	59631
Toluene	ND	0.050		mg/Kg	1	4/29/2021 12:07:14 AM	59631
Ethylbenzene	ND	0.050		mg/Kg	1	4/29/2021 12:07:14 AM	59631
Xylenes, Total	ND	0.10		mg/Kg	1	4/29/2021 12:07:14 AM	59631
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	4/29/2021 12:07:14 AM	59631

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

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

Analytical Report

Lab Order **2104A77**

Date Reported: **4/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-43 Bottom 2.5 Ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/23/2021 11:15:00 AM

Lab ID: 2104A77-016

Matrix: SOIL

Received Date: 4/24/2021 9:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	240	60		mg/Kg	20	4/29/2021 3:53:08 PM	59700
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/27/2021 8:38:12 PM	59638
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/27/2021 8:38:12 PM	59638
Surr: DNOP	89.7	70-130		%Rec	1	4/27/2021 8:38:12 PM	59638
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/29/2021 12:30:42 AM	59631
Surr: BFB	105	70-130		%Rec	1	4/29/2021 12:30:42 AM	59631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2021 12:30:42 AM	59631
Toluene	ND	0.048		mg/Kg	1	4/29/2021 12:30:42 AM	59631
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2021 12:30:42 AM	59631
Xylenes, Total	ND	0.097		mg/Kg	1	4/29/2021 12:30:42 AM	59631
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	4/29/2021 12:30:42 AM	59631

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59689	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59689	RunNo: 77001								
Prep Date: 4/28/2021	Analysis Date: 4/28/2021	SeqNo: 2729981	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59689	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59689	RunNo: 77001								
Prep Date: 4/28/2021	Analysis Date: 4/28/2021	SeqNo: 2729982	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

Sample ID: MB-59700	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59700	RunNo: 77029								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2731376	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59700	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59700	RunNo: 77029								
Prep Date: 4/29/2021	Analysis Date: 4/29/2021	SeqNo: 2731377	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	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#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59620	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59620	RunNo: 76960								
Prep Date: 4/25/2021	Analysis Date: 4/27/2021	SeqNo: 2728683			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.1	70	130			

Sample ID: LCS-59620	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59620	RunNo: 76960								
Prep Date: 4/25/2021	Analysis Date: 4/27/2021	SeqNo: 2728696			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	68.9	141			
Surr: DNOP	4.5		5.000		90.0	70	130			

Sample ID: MB-59638	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59638	RunNo: 76973								
Prep Date: 4/26/2021	Analysis Date: 4/27/2021	SeqNo: 2728953			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	70	130			

Sample ID: LCS-59638	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59638	RunNo: 76973								
Prep Date: 4/26/2021	Analysis Date: 4/27/2021	SeqNo: 2728954			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	68.9	141			
Surr: DNOP	5.4		5.000		108	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: mb-59619	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59619	RunNo: 76986								
Prep Date: 4/24/2021	Analysis Date: 4/28/2021	SeqNo: 2728886			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		107	70	130			

Sample ID: ics-59619	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59619	RunNo: 76986								
Prep Date: 4/24/2021	Analysis Date: 4/27/2021	SeqNo: 2728887			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	86.0	78.6	131			
Surr: BFB	1200		1000		119	70	130			

Sample ID: mb-59631	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730067			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	70	130			

Sample ID: ics-59631	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730068			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	78.6	131			
Surr: BFB	1200		1000		122	70	130			

Sample ID: 2104a77-011ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SP-38 Bottom 2.5 Ft	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730070			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.56	0	96.2	61.3	114			
Surr: BFB	1100		942.5		114	70	130			

Sample ID: 2104a77-011amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SP-38 Bottom 2.5 Ft	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730071			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: 2104a77-011amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SP-38 Bottom 2.5 Ft	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730071 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.28	0	95.7	61.3	114	1.76	20	
Surr: BFB	1100		931.1		114	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: mb-59619	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59619	RunNo: 76986								
Prep Date: 4/24/2021	Analysis Date: 4/28/2021	SeqNo: 2728934	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	70	130			

Sample ID: LCS-59619	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59619	RunNo: 76986								
Prep Date: 4/24/2021	Analysis Date: 4/27/2021	SeqNo: 2728935	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.93	0.050	1.000	0	93.2	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	70	130			

Sample ID: mb-59631	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730103	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		105	70	130			

Sample ID: LCS-59631	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730104	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104A77

30-Apr-21

Client: Safety & Environmental Solutions

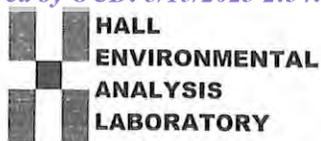
Project: Devon Remuda Basin SWD 1

Sample ID: 2104a77-012ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-39 Bottom 2.5 Ft	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730107	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9814	0	103	76.3	120			
Toluene	1.0	0.049	0.9814	0	106	78.5	120			
Ethylbenzene	1.0	0.049	0.9814	0	104	78.1	124			
Xylenes, Total	3.1	0.098	2.944	0	104	79.3	125			
Surr: 4-Bromofluorobenzene	1.1		0.9814		109	70	130			

Sample ID: 2104a77-012amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-39 Bottom 2.5 Ft	Batch ID: 59631	RunNo: 77006								
Prep Date: 4/26/2021	Analysis Date: 4/28/2021	SeqNo: 2730108	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9881	0	101	80	120	1.60	20	
Toluene	1.0	0.049	0.9881	0	104	80	120	1.11	20	
Ethylbenzene	1.0	0.049	0.9881	0	104	80	120	0.786	20	
Xylenes, Total	3.1	0.099	2.964	0	104	80	120	0.0858	20	
Surr: 4-Bromofluorobenzene	1.1		0.9881		109	70	130	0	0	

Qualifiers:

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



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

Sample Log-In Check List

Client Name: **Safety & Environmental Solutions**

Work Order Number: **2104A77**

RcptNo: 1

Received By: **Desiree Dominguez** 4/24/2021 9:10:00 AM *DD*

Completed By: **Desiree Dominguez** 4/24/2021 9:50:13 AM *DD*

Reviewed By: *MD 04/24/2021*

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: *DAD 4/24/21*

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				

Chain-of-Custody Record

Client: Safety + Environmental Solutions
 Mailing Address: 703 E. Clunston Hobbs N.M. 88240
 Phone #: 575-397-0510
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other EDD (Type) _____

Turn-Around Time: Standard Rush
 Project Name: Devon
RAMUDA BASIN SWD I
 Project #: DEV-20-002

Project Manager: Allen, Bob
 Sampler: Sin Jun
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 0.3 - 0.0 - 0.3 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/23	0920	S	SP-38 Bottom 2.5ft	1	Jel	2104A77
	0940	S	SP-39 Bottom 2.5ft	1	Next	-011
	1015	S	SP-40 Bottom 2.5ft	1		-012
	1040	S	SP-41 Bottom 2.5ft	1		-013
	1105	S	SP-42 Bottom 2.5ft	1		-014
04/23	1115	S	SP-43 Bottom 1.5ft	1		-015
						-016

Relinquished by: Sin Jun Date: 04/23 Time: 1600
 Relinquished by: Alvin Date: 4/23/21 Time: 9:10



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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

Remarks: Bill Devon Direct



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

May 05, 2021

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

RE: Devon Remuda Basin SWD 1

OrderNo.: 2104C30

Dear Bob Allen:

Hall Environmental Analysis Laboratory received 17 sample(s) on 4/29/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-44 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 10:05:00 AM

Lab ID: 2104C30-001

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 1:44:17 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/1/2021 4:23:39 PM	59724
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2021 4:23:39 PM	59724
Surr: DNOP	101	70-130		%Rec	1	5/1/2021 4:23:39 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/30/2021 8:57:01 PM	59714
Surr: BFB	88.5	70-130		%Rec	1	4/30/2021 8:57:01 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/30/2021 8:57:01 PM	59714
Toluene	ND	0.050		mg/Kg	1	4/30/2021 8:57:01 PM	59714
Ethylbenzene	ND	0.050		mg/Kg	1	4/30/2021 8:57:01 PM	59714
Xylenes, Total	ND	0.10		mg/Kg	1	4/30/2021 8:57:01 PM	59714
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/30/2021 8:57:01 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-45 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 10:25:00 AM

Lab ID: 2104C30-002

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 1:56:41 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/1/2021 4:33:25 PM	59724
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/1/2021 4:33:25 PM	59724
Surr: DNOP	93.5	70-130		%Rec	1	5/1/2021 4:33:25 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/30/2021 9:20:45 PM	59714
Surr: BFB	90.6	70-130		%Rec	1	4/30/2021 9:20:45 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/30/2021 9:20:45 PM	59714
Toluene	ND	0.050		mg/Kg	1	4/30/2021 9:20:45 PM	59714
Ethylbenzene	ND	0.050		mg/Kg	1	4/30/2021 9:20:45 PM	59714
Xylenes, Total	ND	0.10		mg/Kg	1	4/30/2021 9:20:45 PM	59714
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/30/2021 9:20:45 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-46 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 10:45:00 AM

Lab ID: 2104C30-003

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 2:09:06 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/1/2021 4:43:10 PM	59724
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/1/2021 4:43:10 PM	59724
Surr: DNOP	94.1	70-130		%Rec	1	5/1/2021 4:43:10 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2021 9:44:32 PM	59714
Surr: BFB	89.4	70-130		%Rec	1	4/30/2021 9:44:32 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/30/2021 9:44:32 PM	59714
Toluene	ND	0.048		mg/Kg	1	4/30/2021 9:44:32 PM	59714
Ethylbenzene	ND	0.048		mg/Kg	1	4/30/2021 9:44:32 PM	59714
Xylenes, Total	ND	0.096		mg/Kg	1	4/30/2021 9:44:32 PM	59714
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/30/2021 9:44:32 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-47 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 11:15:00 AM

Lab ID: 2104C30-004

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	61		mg/Kg	20	5/3/2021 2:21:30 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2021 4:52:56 PM	59724
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 4:52:56 PM	59724
Surr: DNOP	97.7	70-130		%Rec	1	5/1/2021 4:52:56 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2021 10:55:32 PM	59714
Surr: BFB	85.7	70-130		%Rec	1	4/30/2021 10:55:32 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/30/2021 10:55:32 PM	59714
Toluene	ND	0.048		mg/Kg	1	4/30/2021 10:55:32 PM	59714
Ethylbenzene	ND	0.048		mg/Kg	1	4/30/2021 10:55:32 PM	59714
Xylenes, Total	ND	0.097		mg/Kg	1	4/30/2021 10:55:32 PM	59714
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	4/30/2021 10:55:32 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-48 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 11:50:00 AM

Lab ID: 2104C30-005

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	5/3/2021 2:33:55 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/1/2021 5:02:40 PM	59724
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 5:02:40 PM	59724
Surr: DNOP	99.5	70-130		%Rec	1	5/1/2021 5:02:40 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/30/2021 11:19:17 PM	59714
Surr: BFB	89.2	70-130		%Rec	1	4/30/2021 11:19:17 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/30/2021 11:19:17 PM	59714
Toluene	ND	0.047		mg/Kg	1	4/30/2021 11:19:17 PM	59714
Ethylbenzene	ND	0.047		mg/Kg	1	4/30/2021 11:19:17 PM	59714
Xylenes, Total	ND	0.094		mg/Kg	1	4/30/2021 11:19:17 PM	59714
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/30/2021 11:19:17 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-49 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 1:15:00 PM

Lab ID: 2104C30-006

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	61		mg/Kg	20	5/3/2021 2:46:19 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/1/2021 5:12:24 PM	59724
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 5:12:24 PM	59724
Surr: DNOP	128	70-130		%Rec	1	5/1/2021 5:12:24 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/30/2021 11:43:00 PM	59714
Surr: BFB	90.2	70-130		%Rec	1	4/30/2021 11:43:00 PM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/30/2021 11:43:00 PM	59714
Toluene	ND	0.047		mg/Kg	1	4/30/2021 11:43:00 PM	59714
Ethylbenzene	ND	0.047		mg/Kg	1	4/30/2021 11:43:00 PM	59714
Xylenes, Total	ND	0.094		mg/Kg	1	4/30/2021 11:43:00 PM	59714
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/30/2021 11:43:00 PM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-50 North Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 1:35:00 PM

Lab ID: 2104C30-007

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 2:58:44 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2021 5:22:07 PM	59724
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2021 5:22:07 PM	59724
Surr: DNOP	92.1	70-130		%Rec	1	5/1/2021 5:22:07 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2021 12:06:33 AM	59714
Surr: BFB	89.7	70-130		%Rec	1	5/1/2021 12:06:33 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/1/2021 12:06:33 AM	59714
Toluene	ND	0.048		mg/Kg	1	5/1/2021 12:06:33 AM	59714
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2021 12:06:33 AM	59714
Xylenes, Total	ND	0.096		mg/Kg	1	5/1/2021 12:06:33 AM	59714
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	5/1/2021 12:06:33 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-51 West Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 1:50:00 PM

Lab ID: 2104C30-008

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 3:11:08 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/1/2021 5:31:50 PM	59724
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/1/2021 5:31:50 PM	59724
Surr: DNOP	96.0	70-130		%Rec	1	5/1/2021 5:31:50 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2021 12:30:07 AM	59714
Surr: BFB	89.9	70-130		%Rec	1	5/1/2021 12:30:07 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/1/2021 12:30:07 AM	59714
Toluene	ND	0.049		mg/Kg	1	5/1/2021 12:30:07 AM	59714
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2021 12:30:07 AM	59714
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2021 12:30:07 AM	59714
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/1/2021 12:30:07 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-52 South Wall

Project: Devon Remuda Basin SWD 1

Collection Date: 4/26/2021 2:05:00 PM

Lab ID: 2104C30-009

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/3/2021 3:23:32 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/1/2021 5:41:37 PM	59724
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2021 5:41:37 PM	59724
Surr: DNOP	90.8	70-130		%Rec	1	5/1/2021 5:41:37 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2021 12:53:42 AM	59714
Surr: BFB	90.1	70-130		%Rec	1	5/1/2021 12:53:42 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/1/2021 12:53:42 AM	59714
Toluene	ND	0.050		mg/Kg	1	5/1/2021 12:53:42 AM	59714
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2021 12:53:42 AM	59714
Xylenes, Total	ND	0.10		mg/Kg	1	5/1/2021 12:53:42 AM	59714
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/1/2021 12:53:42 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-53 Bottom 3 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 9:15:00 AM

Lab ID: 2104C30-010

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	350	60		mg/Kg	20	5/3/2021 4:00:46 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2021 5:51:31 PM	59724
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 5:51:31 PM	59724
Surr: DNOP	122	70-130		%Rec	1	5/1/2021 5:51:31 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/1/2021 1:17:13 AM	59714
Surr: BFB	88.6	70-130		%Rec	1	5/1/2021 1:17:13 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/1/2021 1:17:13 AM	59714
Toluene	ND	0.047		mg/Kg	1	5/1/2021 1:17:13 AM	59714
Ethylbenzene	ND	0.047		mg/Kg	1	5/1/2021 1:17:13 AM	59714
Xylenes, Total	ND	0.095		mg/Kg	1	5/1/2021 1:17:13 AM	59714
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/1/2021 1:17:13 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-54 Bottom 2.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 9:35:00 AM

Lab ID: 2104C30-011

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	160	60		mg/Kg	20	5/3/2021 4:13:11 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2021 6:01:29 PM	59724
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 6:01:29 PM	59724
Surr: DNOP	114	70-130		%Rec	1	5/1/2021 6:01:29 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2021 1:40:42 AM	59714
Surr: BFB	90.7	70-130		%Rec	1	5/1/2021 1:40:42 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/1/2021 1:40:42 AM	59714
Toluene	ND	0.048		mg/Kg	1	5/1/2021 1:40:42 AM	59714
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2021 1:40:42 AM	59714
Xylenes, Total	ND	0.096		mg/Kg	1	5/1/2021 1:40:42 AM	59714
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	5/1/2021 1:40:42 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-55 Bottom 2.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 10:00:00 AM

Lab ID: 2104C30-012

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	360	61		mg/Kg	20	5/3/2021 4:50:24 PM	59759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/1/2021 6:11:29 PM	59724
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/1/2021 6:11:29 PM	59724
Surr: DNOP	90.7	70-130		%Rec	1	5/1/2021 6:11:29 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2021 2:04:18 AM	59714
Surr: BFB	89.8	70-130		%Rec	1	5/1/2021 2:04:18 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/1/2021 2:04:18 AM	59714
Toluene	ND	0.049		mg/Kg	1	5/1/2021 2:04:18 AM	59714
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2021 2:04:18 AM	59714
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2021 2:04:18 AM	59714
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/1/2021 2:04:18 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-56 Bottom 1.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 10:25:00 AM

Lab ID: 2104C30-013

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	250	60		mg/Kg	20	5/3/2021 5:52:26 PM	59772
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/1/2021 6:21:24 PM	59724
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/1/2021 6:21:24 PM	59724
Surr: DNOP	92.7	70-130		%Rec	1	5/1/2021 6:21:24 PM	59724
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/1/2021 2:28:00 AM	59714
Surr: BFB	88.8	70-130		%Rec	1	5/1/2021 2:28:00 AM	59714
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	5/1/2021 2:28:00 AM	59714
Toluene	ND	0.046		mg/Kg	1	5/1/2021 2:28:00 AM	59714
Ethylbenzene	ND	0.046		mg/Kg	1	5/1/2021 2:28:00 AM	59714
Xylenes, Total	ND	0.093		mg/Kg	1	5/1/2021 2:28:00 AM	59714
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/1/2021 2:28:00 AM	59714

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-57 Bottom 1.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 10:55:00 AM

Lab ID: 2104C30-014

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	260	60		mg/Kg	20	5/3/2021 6:54:28 PM	59772
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2021 3:13:49 PM	59719
Surr: BFB	92.9	70-130		%Rec	1	5/1/2021 3:13:49 PM	59719
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2021 6:19:22 PM	59723
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/30/2021 6:19:22 PM	59723
Surr: DNOP	1.75	70-130	S	%Rec	1	4/30/2021 6:19:22 PM	59723
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.025		mg/Kg	1	5/1/2021 3:13:49 PM	59719
Toluene	ND	0.049		mg/Kg	1	5/1/2021 3:13:49 PM	59719
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2021 3:13:49 PM	59719
Xylenes, Total	ND	0.098		mg/Kg	1	5/1/2021 3:13:49 PM	59719
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	5/1/2021 3:13:49 PM	59719
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	5/1/2021 3:13:49 PM	59719
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/1/2021 3:13:49 PM	59719
Surr: Toluene-d8	101	70-130		%Rec	1	5/1/2021 3:13:49 PM	59719

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-58 Bottom 1.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 11:15:00 AM

Lab ID: 2104C30-015

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	240	60		mg/Kg	20	5/3/2021 7:06:52 PM	59772
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2021 3:40:55 PM	59719
Surr: BFB	93.7	70-130		%Rec	1	5/1/2021 3:40:55 PM	59719
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.1		mg/Kg	1	5/1/2021 1:37:33 PM	59746
Motor Oil Range Organics (MRO)	ND	41		mg/Kg	1	5/1/2021 1:37:33 PM	59746
Surr: DNOP	88.3	70-130		%Rec	1	5/1/2021 1:37:33 PM	59746
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.025		mg/Kg	1	5/1/2021 3:40:55 PM	59719
Toluene	ND	0.050		mg/Kg	1	5/1/2021 3:40:55 PM	59719
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2021 3:40:55 PM	59719
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2021 3:40:55 PM	59719
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	5/1/2021 3:40:55 PM	59719
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	5/1/2021 3:40:55 PM	59719
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/1/2021 3:40:55 PM	59719
Surr: Toluene-d8	103	70-130		%Rec	1	5/1/2021 3:40:55 PM	59719

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-59 Bottom 1.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 11:35:00 AM

Lab ID: 2104C30-016

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	250	60		mg/Kg	20	5/3/2021 7:19:16 PM	59772
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/1/2021 4:08:18 PM	59719
Surr: BFB	95.5	70-130		%Rec	1	5/1/2021 4:08:18 PM	59719
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/1/2021 1:47:17 PM	59746
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/1/2021 1:47:17 PM	59746
Surr: DNOP	93.8	70-130		%Rec	1	5/1/2021 1:47:17 PM	59746
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.025		mg/Kg	1	5/1/2021 4:08:18 PM	59719
Toluene	ND	0.050		mg/Kg	1	5/1/2021 4:08:18 PM	59719
Ethylbenzene	ND	0.050		mg/Kg	1	5/1/2021 4:08:18 PM	59719
Xylenes, Total	ND	0.099		mg/Kg	1	5/1/2021 4:08:18 PM	59719
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	5/1/2021 4:08:18 PM	59719
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	5/1/2021 4:08:18 PM	59719
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/1/2021 4:08:18 PM	59719
Surr: Toluene-d8	103	70-130		%Rec	1	5/1/2021 4:08:18 PM	59719

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

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

Analytical Report

Lab Order **2104C30**

Date Reported: **5/5/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: SP-60 Bottom 1.5 ft

Project: Devon Remuda Basin SWD 1

Collection Date: 4/27/2021 11:55:00 AM

Lab ID: 2104C30-017

Matrix: SOIL

Received Date: 4/29/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	77	60		mg/Kg	20	5/3/2021 7:31:40 PM	59772
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/1/2021 4:35:20 PM	59719
Surr: BFB	92.9	70-130		%Rec	1	5/1/2021 4:35:20 PM	59719
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	5/1/2021 1:57:00 PM	59746
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	5/1/2021 1:57:00 PM	59746
Surr: DNOP	118	70-130		%Rec	1	5/1/2021 1:57:00 PM	59746
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: BRM
Benzene	ND	0.024		mg/Kg	1	5/1/2021 4:35:20 PM	59719
Toluene	ND	0.049		mg/Kg	1	5/1/2021 4:35:20 PM	59719
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2021 4:35:20 PM	59719
Xylenes, Total	ND	0.097		mg/Kg	1	5/1/2021 4:35:20 PM	59719
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	5/1/2021 4:35:20 PM	59719
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	5/1/2021 4:35:20 PM	59719
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/1/2021 4:35:20 PM	59719
Surr: Toluene-d8	102	70-130		%Rec	1	5/1/2021 4:35:20 PM	59719

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59759	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59759	RunNo: 77110								
Prep Date: 5/3/2021	Analysis Date: 5/3/2021	SeqNo: 2733792	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Sample ID: MB-59759	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59759	RunNo: 77110								
Prep Date: 5/3/2021	Analysis Date: 5/3/2021	SeqNo: 2733793	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: MB-59772	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59772	RunNo: 77110								
Prep Date: 5/3/2021	Analysis Date: 5/3/2021	SeqNo: 2733822	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59772	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59772	RunNo: 77110								
Prep Date: 5/3/2021	Analysis Date: 5/3/2021	SeqNo: 2733823	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59724	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59724	RunNo: 77087								
Prep Date: 4/30/2021	Analysis Date: 5/1/2021	SeqNo: 2732831	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	103	68.9	141			
Surr: DNOP	5.4		5.000		108	70	130			

Sample ID: LCS-59746	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59746	RunNo: 77087								
Prep Date: 4/30/2021	Analysis Date: 5/1/2021	SeqNo: 2732834	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	68.9	141			
Surr: DNOP	5.1		5.000		101	70	130			

Sample ID: MB-59724	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59724	RunNo: 77087								
Prep Date: 4/30/2021	Analysis Date: 5/1/2021	SeqNo: 2732844	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		94.9	70	130			

Sample ID: MB-59746	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59746	RunNo: 77087								
Prep Date: 4/30/2021	Analysis Date: 5/1/2021	SeqNo: 2732846	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		94.6	70	130			

Sample ID: MB-59723	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59723	RunNo: 77092								
Prep Date: 4/29/2021	Analysis Date: 5/3/2021	SeqNo: 2733162	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: LCS-59723	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59723	RunNo: 77092								
Prep Date: 4/29/2021	Analysis Date: 5/3/2021	SeqNo: 2733163	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	10	50.00	0	122	68.9	141			
Surr: DNOP	5.9		5.000		117	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59714	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59714	RunNo: 77068								
Prep Date: 4/29/2021	Analysis Date: 4/30/2021	SeqNo: 2732562	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.4	70	130			

Sample ID: LCS-59714	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59714	RunNo: 77068								
Prep Date: 4/29/2021	Analysis Date: 4/30/2021	SeqNo: 2732563	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.5	78.6	131			
Surr: BFB	990		1000		98.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: MB-59714	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59714	RunNo: 77068								
Prep Date: 4/29/2021	Analysis Date: 4/30/2021	SeqNo: 2732606	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			

Sample ID: LCS-59714	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59714	RunNo: 77068								
Prep Date: 4/29/2021	Analysis Date: 4/30/2021	SeqNo: 2732607	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.0	80	120			
Toluene	0.97	0.050	1.000	0	97.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: 2104c30-015ams	SampType: MS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SP-58 Bottom 1.5 ft	Batch ID: 59719	RunNo: 77069								
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732704	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9901	0	116	70	130			
Toluene	1.1	0.050	0.9901	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.4950		104	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.4950		98.4	70	130			
Surr: Dibromofluoromethane	0.52		0.4950		105	70	130			
Surr: Toluene-d8	0.50		0.4950		101	70	130			

Sample ID: 2104c30-015amsd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SP-58 Bottom 1.5 ft	Batch ID: 59719	RunNo: 77069								
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732705	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9930	0	119	70	130	2.45	20	
Toluene	1.1	0.050	0.9930	0	113	70	130	0.111	20	
Surr: 1,2-Dichloroethane-d4	0.52		0.4965		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4965		99.0	70	130	0	0	
Surr: Dibromofluoromethane	0.55		0.4965		110	70	130	0	0	
Surr: Toluene-d8	0.51		0.4965		102	70	130	0	0	

Sample ID: lcs-59719	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: 59719	RunNo: 77069								
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732715	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	70	130			
Toluene	1.1	0.050	1.000	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			

Sample ID: mb-59719	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 59719	RunNo: 77069								
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732716	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

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#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: mb-59719	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 59719	RunNo: 77069								
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732716	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2104C30

05-May-21

Client: Safety & Environmental Solutions

Project: Devon Remuda Basin SWD 1

Sample ID: 2104c30-014ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: SP-57 Bottom 1.5 ft	Batch ID: 59719	RunNo: 77069									
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732688								Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	32	4.9	24.53	0	132	49.2	122			S	
Surr: BFB	470		490.7		95.8	70	130				

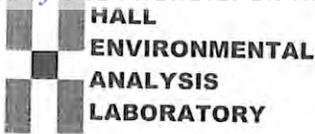
Sample ID: 2104c30-014amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: SP-57 Bottom 1.5 ft	Batch ID: 59719	RunNo: 77069									
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732689								Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	4.8	24.04	0	103	49.2	122	26.6	20	R	
Surr: BFB	440		480.8		91.7	70	130	0	0		

Sample ID: lcs-59719	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: LCSS	Batch ID: 59719	RunNo: 77069									
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732700								Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	70	130				
Surr: BFB	470		500.0		93.7	70	130				

Sample ID: mb-59719	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: PBS	Batch ID: 59719	RunNo: 77069									
Prep Date: 4/29/2021	Analysis Date: 5/1/2021	SeqNo: 2732701								Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	480		500.0		95.2	70	130				

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2104C30
RcptNo: 1

Received By: Cheyenne Cason 4/29/2021 7:35:00 AM
Completed By: Cheyenne Cason 4/29/2021 9:00:34 AM
Reviewed By: ENH 4/29/21

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: 50 4/29/21
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

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

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

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, 0.4, Good, [], [], []

Chain-of-Custody Record

Client: Safety + Environmental Solutions
 Mailing Address: 703 E. Chisler Hobbs N.M. 88240
 Phone #: 575-397-0510
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other EDD (Type) _____

Turn-Around Time: 5 day
 Standard Rush
 Project Name: DEVON
Remuda Basin SWA 1
 Project #: DEV-20-002

Project Manager: Aleri Bab
 Sampler: Jan Juny
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 0.5-0.12-0.14 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/26	1005	S	SP-44 NORTH well	1	Juice	2104C30
	1025	S	SP-45 SOUTH well	1	None	001
	1045	S	SP-46 NORTH well	1		002
	1115	S	SP-47 SOUTH well	1		003
	1150	S	SP-48 NORTH well	1		004
	1315	S	SP-49 SOUTH well	1		005
	1335	S	SP-50 NORTH well	1		006
	1350	S	SP-51 WEST well	1		007
04/26	1405	S	SP-52 SOUTH well	1		008
						009

Relinquished by: Jan Juny Date: 4/28/23 1600
 Relinquished by: Jan Juny Date: 4/28/23 1900
 Received by: [Signature] Date: 4/28/23 1600
 Received by: [Signature] Date: 4/28/23 17:35



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

Analysis Request

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

Chain-of-Custody Record

Client: Safety & Environmental Solutions
 Mailing Address: 703 E Clinton Hobbs N.M. 88240
 Phone #: 575-397-0510
 email or Fax#:

Turn-Around Time: 5 days

Standard Rush

Project Name: Duran Remuda Basin Suid I
 Project #: DEV-20-002

Project Manager: Allen, Bob

Sampler: Sam Jerry
 On Ice: Yes No

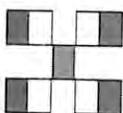
of Coolers: 1

Cooler Temp (including CP): 45-0.15-0.4 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/27	0915	S	SP-53 Bottom 3.5F	1	THU	2104C
?	0935	S	SP-54 Bottom 2.5F	1	MUD	010
	1000	S	SP-55 Bottom 2.5F	1		011
	1025	S	SP-56 Bottom 1.5F	1		012
	1055	S	SP-57 Bottom 1.5F	1		013
	1115	S	SP-58 Bottom 1.5F	1		014
	1135	S	SP-59 Bottom 1.5F	1		015
04/27	1155	S	SP-60 Bottom 1.5F	1		016
						017

Received by: [Signature] Date Time: 4/28/21 1600

Relinquished by: [Signature] Date Time: 4/29/21 7:15



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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

Remarks:

Figure 7: C-141

NMCRIS No.: 146043

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 146043	2a. Lead Agency: US Bureau of Land Management Carlsbad Field Office	2b. Other Agency(ies):	3. Lead Agency Report No.:
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4. Title of Report: A Class III Archaeological Survey for the Devon Energy Remuda Basin SWD 1 Release Remediation, Eddy County, New Mexico Author(s) Galassini, Stacy K. and Joshua W. Broxson	5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
---	---

6. Investigation Type

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

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

A cultural resource survey was conducted for a release at the Devon Energy Remuda Basin SWD 1 in Eddy County, NM, on federal land in Section 20 of T23S R30E. The release extends northwest off of the SWD pad and totals 0.72 acres.

[] Continuation

8. Dates of Investigation: from: 30-Jun-2020 to: 30-Jun-2020	9. Report Date: 30-Jun-2020
---	------------------------------------

10. Performing Agency/Consultant: Boone Archaeological Resource Consultants, LLC.

Principal Investigator: Stacy K. Galassini

Field Supervisor: Dane Womble

Field Personnel Names: Cash Ficke

Historian / Other:

11. Performing Agency/Consultant Report No.:
BARC 06-20-24

12. Applicable Cultural Resource Permit No(s):
BLM Permit No.: 190-2970-20-AA

NMCRIS No.: 146043

13. Client/Customer (project proponent):

Safety and Environmental Solutions, Inc.

Contact: Kathy Purvis

Address:

Phone: 575-397-0510

14. Client/Customer Project No.:

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

Land Owner (By Agency)	Acres Surveyed	Acres in APE
US Bureau of Land Management Carlsbad Field Office	3.90	3.90
TOTALS	3.90	3.90

16. Records Search(es):

Date(s) of HPD/ARMS File Review: 30 Jun 2020	Name of Reviewer(s): S.K. Galassini	
Date(s) of Other Agency File Review: 30 Jun 2020	Name of Reviewer(s): S.K. Galassini	Agency: BLM/CFO

17. Survey Data:

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

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

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

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name

USGS Quad Code

Remuda Basin, NM	32103-C8
------------------	----------

c. County(ies): EDDY

d. Nearest City or Town: Loving, NM

e. Legal Description:

Township (N/S)	Range (E/W)	Sections
23S	30E	17, 19, 20

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

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

[] Continuation

18. Survey Field Methods:

Intensity: 100% coverage <100% coverage

NMCRIS No.: 146043

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

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

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

Survey Interval (m): 15 **Crew Size:** 2 **Fieldwork Dates:** from: 30-Jun-2020 to: 30-Jun-2020

Survey Person Hours: 1.00 **Recording Person Hours:** 0.00 **Total Hours:** 1.00

Additional Narrative:

The release which extended beyond the pad and a buffer area were surveyed using 50 ft. parallel transects across an irregular block area providing at least 100 ft. clearance. The survey area extends onto federal land in Sections 17 and 19 of T23S R30E and totals 3.9 acres.

There is one previously recorded cultural resource within ¼ mile of the project area: LA 154206.

[] Continuation

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

According to the Natural Resources Conservation Service' online database, the project area soils consist of Reagan soils. These soils are associated with the Loamy ecological site (R042XC007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, javelina bush, and desert forbs and grasses. The survey area falls on rolling, rocky hills. The elevation ranges from 3,130 ft. – 3,150 ft. above mean sea level.

[] Continuation

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

The survey area has been affected by a release, electric line, well pad, lease road, flowline, erosion, and burrowing.

[] Continuation

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

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

[] Continuation

22. Attachments (check all appropriate boxes):

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

23. Other Attachments:

Photographs and Log

Other Attachments
(Describe): Pre-field Form

NMCRIS No.: 146043

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

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

Signature: Stacy K. Galassini Date: 7/1/20 Title: Principal Investigator

25. Reviewing Agency	26. SHPO
Reviewer's Name/Date:	Reviewer's Name/Date:
Accepted [] Rejected []	HPD Log #:
	Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 0
 Archaeological Sites discovered and NOT registered: 0
 Previously recorded archaeological sites revisited (site update form required): 0
 Previously recorded archaeological sites not relocated (site update form required): 0
 TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0
 Total isolates recorded: 1 Non-selective isolate recording?
 HCPI properties discovered and registered: 0
 HCPI properties discovered and NOT registered: 0
 Previously recorded HCPI properties revisited: 0
 Previously recorded HCPI properties not relocated: 0
 TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

One isolated manifestation was recorded during the survey. Isolates are not eligible for listing to the National Register of Historic Places and no treatment is recommended. The release remediation is recommended for approval. If cultural materials are encountered during the remediation process, work should be halted and archaeologists with the BLM/CFO should be notified immediately.

[] Continuation

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

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

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

A Class III Archaeological Survey for the Devon Energy Remuda Basin SWD 1 Release Remediation, Eddy County, New Mexico

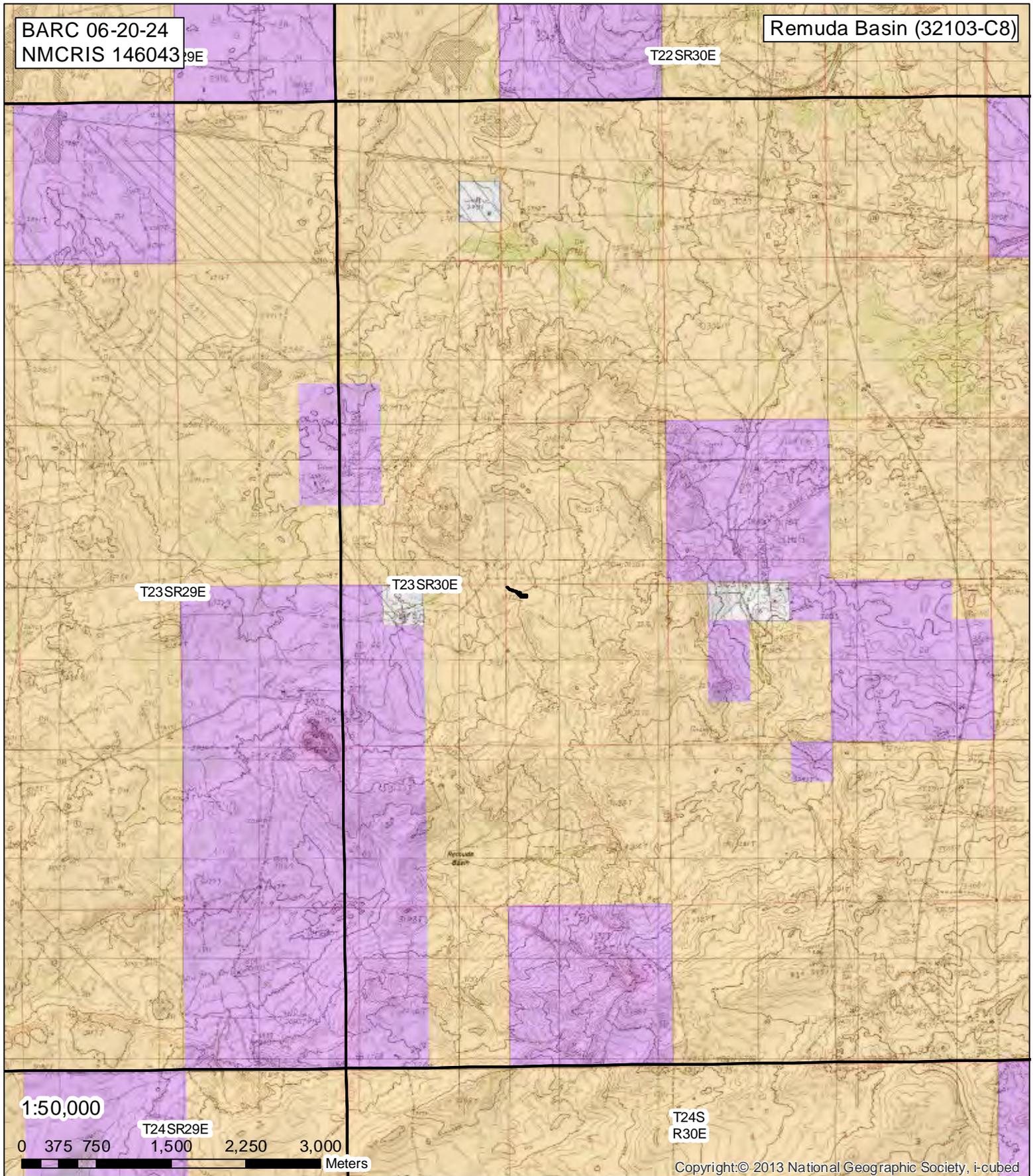
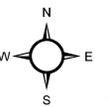


Figure 1. Release Area

Release Area
 BLM
 Private
 NM State



A Class III Archaeological Survey for the Devon Energy Remuda Basin SWD 1 Release Remediation, Eddy County, New Mexico

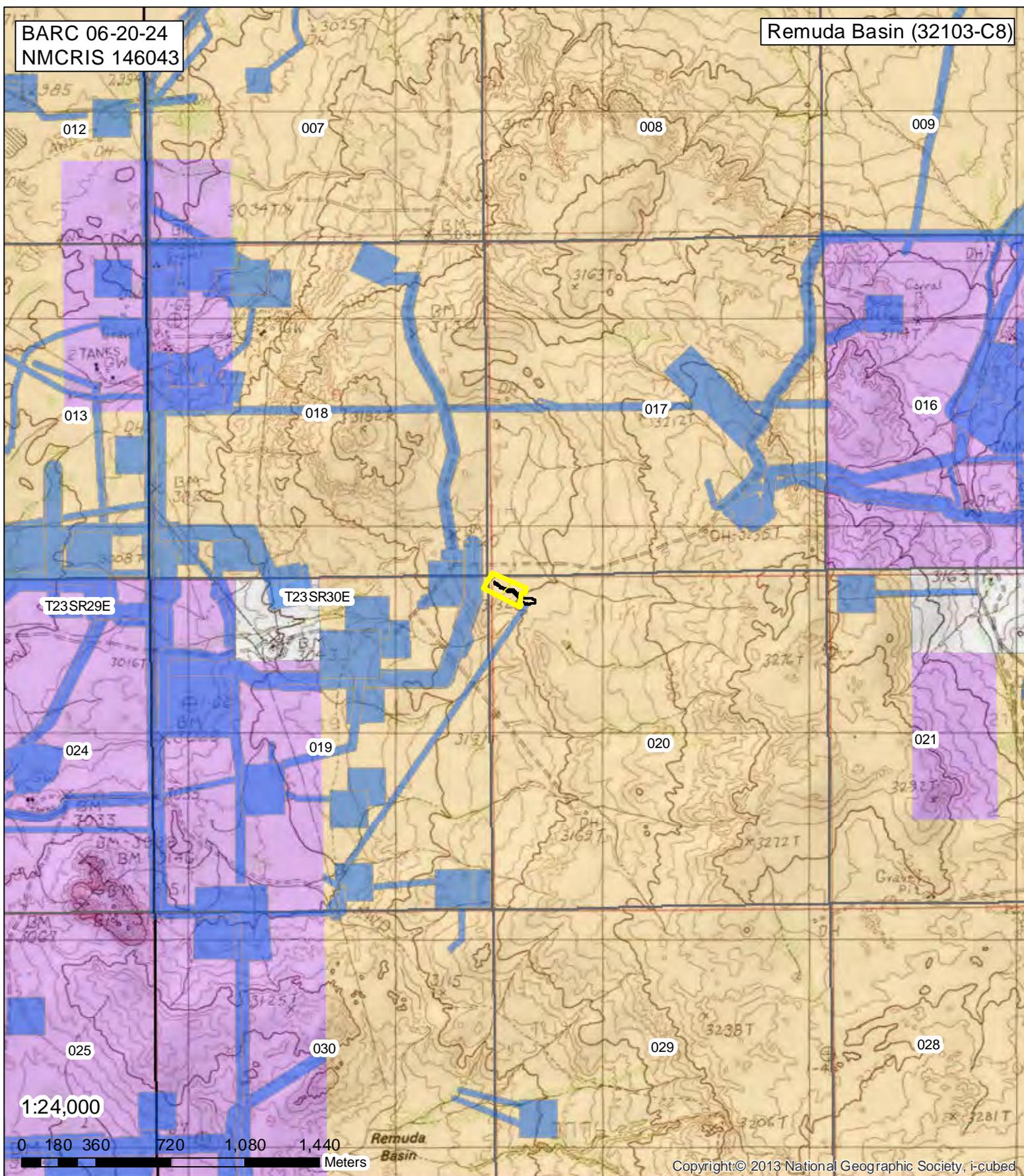
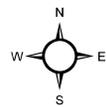


Figure 2. Current & Previous Survey

Survey Area
 Release Area
 BLM Survey
 BLM
 Private
 NM State

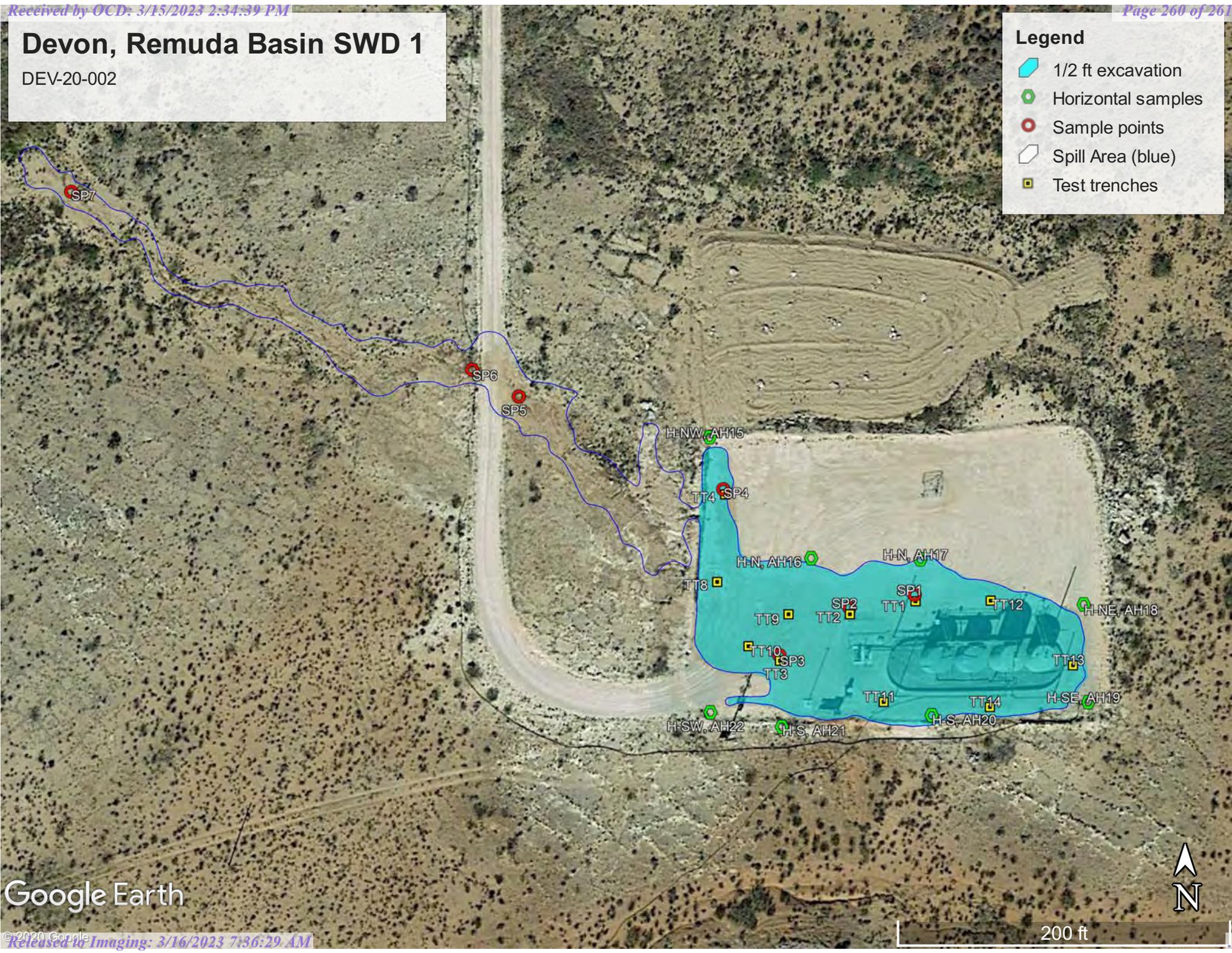


Devon, Remuda Basin SWD 1

DEV-20-002

Legend

-  1/2 ft excavation
-  Horizontal samples
-  Sample points
-  Spill Area (blue)
-  Test trenches



Google Earth



200 ft

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 197602

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 197602
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Per the email from Mike Bratcher included in the report, a deferral was approved. Incident NAB1616740309 is to remain open and will need to be addressed upon plug and abandonment activities. This release is subject to 19.15.29.13 NMAC Restoration, Reclamation, and Revegetation.	3/16/2023