

December 30, 2024

## Shugart 23 Federal Com #001 – Raybaw Operating, LLC



Proposed Sampling Plan Report  
Written by Sapec-Eco, LLC for Raybaw  
Operating, LLC

**ATTN:** NMOCD District 2  
811 South First St  
Artesia, NM 88210

Bureau of Land Management  
620 E Green St  
Carlsbad, NM 88220

**RE:** Proposed Sampling Plan Report  
Shugart 23 Federal Com #001  
API No. 30-015-30448 Raybaw Operating, LLC [330220]  
Surface Location: J - 23 - 18S - 31E 1650 FSL 1980 FEL  
Lat/Long: 32.7303581, -103.838028 NAD83  
NMOCD Incident IDs - nMLB0912449922 & nMLB1125557019

Raybaw Operating, LLC (Raybaw) has contracted Saptec-Eco, LLC (Saptec) to prepare this proposed sampling plan for two (2) historic open release areas at the Shugart 23 Federal Com #001 (Shugart).

### Release Information

**nMLB0912449922:** On April 23, 2009, discovered hole in bottom of tank caused by internal corrosion. Will air out area, rake, and fertilize. 70' x 20' air out area, rake, and fertilize. Will repeat if necessary. Released 40 barrels (bbls) of crude oil, recovered 11 bbls. This incident was assigned incident ID nMLB0912449922 by the New Mexico Oil Conservation Division (NMOCD). The initial C-141 form (Appendix C) was submitted on April 24, 2009, then approved by the NMOCD on May 4, 2009.

**nMLB1125557019:** On September 4, 2011, Hole in oil tank. Immediately, a vacuum truck was used to pick up the spill. 31 bbls were recovered out of 70 bbls. 60' x 20' in containment area. Our plan includes moving the oil tanks and rebuilding the battery at another part of the location and soil remediation will be completed in the spill area. This incident was assigned incident ID nMLB1125557019 by the NMOCD. The initial C-141 form (Appendix C) was submitted on September 6, 2011, then approved by the NMOCD on September 12, 2011.

### Site Characterization

The Shugart is in Eddy County, NM approximately ten (10) miles southeast of Loco Hills, NM. This release site is in Unit J, Section 23, Township 18S, Range 31E, at GPS coordinates 32.7303581 latitude and -103.838028 longitude. It can be accessed by a lease road that bears entry from the southwest. A Location Map can be referenced in Figure 6.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology in this area is Eolian and piedmont deposits. Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits. Appendix B contains a Geologic Unit Map for reference.

The soil in this area, according to the United States Department of Agriculture Natural Resources Conservation Service soil survey, is made up of Berino-Parajito complex, having 0 to 3 percent slopes, eroded. The drainage class in this area is well drained. There is a low potential for karst geology to be present around the Shugart (Figure 4) with the nearest medium karst zone being 4 miles away. Soil Survey and Geological Data can be found in Appendix B. A Topographic Map can be referenced in Figure 5.

This site is in a known Lesser Prairie Chicken or Sand Dune Lizard habitat. It is in an Isolated Population Area within an LPC Timing Restriction Area zone, according to the LPC Timing Area 2021 Southern Map courtesy of the Bureau of Land Management. Any work to be done on this site between March 1, and June 15, will strictly adhere to the Timing Restrictions regulation. LPC-Dune Lizard Maps can be referenced in Figure 7.

This site is not within a special plant species habitat but is within 5 miles of the habitats for Scheer's Beehive Cactus and Tharp's Blue-Star. A Plant/Wildlife Map can be found in Figure 8.

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is greater than 100 feet below grade surface (bgs). This data was recorded from CP-02011-POD1, which is located approximately 4.49 miles away from the Shugart. According to the United States Geological Survey, well water data from USGS 324502103495801 18S.31E.14.22133 records depth to the nearest groundwater at 378 feet bgs, with the last gauge being conducted in 1994. This well is approximately 1.3 miles away from the Shugart. All referenced Water Surveys and Water-Related Maps can be found in Appendix A.

The nearest surface water feature is Hackberry Lake located approximately 8.33 miles to the southwest of this site. The U.S. Fish and Wildlife Service National Wetlands Inventory shows the nearest wetland to be a Freshwater Pond approximately 4.45 miles to the northeast of this area. According to Fema's National Flood Hazard Layer search, the Shugart is situated in Zone X – Area of Minimal Flood Hazard. Closure criteria for this site will be classified under the less than 50-foot depth to groundwater section of Table 1 19.15.29.12 NMAC.

### **Previous Remediation Activities**

On October 11, 2011, EnviroClean Products & Services mobilized to the site to collect soil samples for assessing the extent of the release area. These samples were collected from the tank battery area after the tanks and plumbing had been removed. The samples were put on ice, jarred, then delivered to Cardinal Laboratories for official analysis of BTEX and Total TPH.

On February 5, 2012, EnviroClean personnel returned to the site to begin remediation activities. The method of remediation consisted of excavation combined with in-situ bioremediation. An EnviroClean Summary inclusive of sample results, a description of remediation activities, a site map, and photographs (black & white) can be referenced in Figure 1. Complete Laboratory Reports can be found in Appendix E.

On July 3, 2012, Devon submitted the EnviroClean Sampling and Site Remediation Report for closure of the nMLB1125557019 incident.

On July 14, 2015, the NMOCD responded to the report with a denial requiring the site to be resampled to complete delineation and follow up on the bioremediation with confirmation sampling.

On July 8, 2020, Pima Environmental Services conducted a site assessment and obtained soil samples.

On August 21, 2020, Pima personnel returned to the site to apply a MicroBlaze treatment to the area. After allowing 60 days for the microbes to take effect, they returned to the site to resample. A Pima Summary inclusive of sample results, a description of remediation activities, a site map, and photographs can be referenced in Figure 2. Complete Laboratory Reports can be found in Appendix E.

On December 14, 2020, Devon submitted the Pima closure report for closure of both associated incidents, nMLB0912449922 and nMLB1125557019.

On January 12, 2023, the NMOCD denied both closure requests citing:

amaxwell (1/12/2023), The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.

amaxwell (1/12/2023), Horizontal and vertical delineation submitted was incomplete and did not meet the requirements of 19.15.29.11 NMAC. The values for determination of horizontal impact are derived by either approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less. This is especially important for "on-pad" releases to ensure the release did not extend to the "off-pad"/pasture area. A visual footprint on the surface is not sufficient to assess the horizontal extent of the release. Laboratory data must be provided as evidence of delineation efforts. Any sample exceeding approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less requires additional samples for horizontal delineation.

amaxwell (1/12/2023), Submit a work plan via the OCD permitting portal by 04/23/2023.

Regarding the 2 previous bioremediation methods, no documentation was found verifying their pre-approval by the NMOCD. As a result, the proposed sampling below will be conducted to demonstrate the current status of the impacted areas.

In response to the denied closure requests for both incidents, Raybaw would like to submit this following plan:

### **Proposed Sampling Plan**

1. Submit a 48-Hour Notification of Sampling event to the NMOCD. Also, please see the variance requests below.
2. Collect discrete samples from eleven (24) sample points within the previously treated areas and the ex-situ treatment cell area. These samples will be collected from each sample point at depth intervals of surface, 1', 2', 3', and 4' bgs. The samples that will be collected from around the secondary tank containment should be angled underneath the containment as much as safely possible to represent the previously treated soil.

3. Collect discrete samples from eight (16) sample points from around the edges of the previously treated areas and the ex-situ treatment cell area. These samples will also be collected from each sample point at depth intervals of surface, 1', 2', 3', and 4' bgs. A Proposed Sampling Map can be referenced in Figure 3.
4. A total of 200 samples will be put on ice, prepared for delivery, then delivered to Envirotech Analytical Laboratories for official analysis of all constituents listed in Table 1 19.15.29.12 NMAC.
5. Once lab results have been received and all data has been assessed, any sample results verifying contamination is present over the regulatory limits of the less than 50-foot depth to groundwater section of Table 1 19.15.29.12 NMAC, will be remediated by methods of hand-tool and/or mechanical excavation. Area and volume calculations will be completed at that time.
6. After removing any existing contamination, a 48-Hour notification of confirmation sampling event will be submitted, and confirmation composite samples will be collected from all excavated areas representing no more than 200 square feet each. These samples will be collected from the base and walls of all excavated areas.
7. All samples will be put on ice, prepared for delivery, then delivered to Envirotech Analytical Laboratories for official analysis of all constituents listed in Table 1 19.15.29.12 NMAC.
8. Once lab results are received, if samples are verified to be under the regulatory limits of the less than 50-foot depth to groundwater section of Table 1, a final closure report will be drafted and submitted to the Portal for approval.

### **Variance Request**

Raybaw would like to request a variance to use the delineation samples as confirmation samples in the following situation: If after step 4 of this plan, the lab sample results reported for the delineation samples, verify contamination levels are under the regulatory limits of the less than 50-foot depth to groundwater section of Table 1, then a final closure report will be drafted and submitted to the Portal for approval.

Raybaw would like to also request a variance regarding the number of samples required from the ex-situ treatment cell area for this investigative sampling event. The treatment area was approximately 4,765 feet squared, requiring 24 samples from within the area and had a perimeter of 298 linear feet requiring 4 samples from around the edges of the area, following the 200 square foot rule. We believe we can obtain an accurate representation of the ex-situ treatment area by collecting samples from every 400 square feet from within the treatment area. The number of samples collected from the edges of the area will increase to 8 samples. The illustration of these samples can be seen on the Proposed Sampling map included in Figure 3.

### **Approval Request**

Raybaw respectfully requests that this proposed sampling plan for the two remaining open historic incidents, nMLB0912449922 and nMLB1125557019, be approved. Raybaw has complied with the applicable requirements outlined in 19.15.29.12 NMAC.

Should you have any questions or need additional information, please feel free to contact:  
Raybaw Operating, LLC. – Nancy Winn at 281-793-5452 or [nwinn@sbcglobal.net](mailto:nwinn@sbcglobal.net).  
Saptec-Eco, LLC. – Tom Bynum at 580-748-1613 or [tombynum@saptec-eco.com](mailto:tombynum@saptec-eco.com).

### **Attachments**

#### **Figures**

- 1- EnviroClean Summary
- 2- Pima Summary
- 3- Proposed Sampling Map
- 4- Karst Map
- 5- Topographic Map
- 6- Location Map
- 7- LPC-Dune Lizard Maps
- 8- Plant/Wildlife Map

#### **Appendices**

- Appendix A – Water Surveys & Water-Related Maps
- Appendix B – Soil Survey & Geological Data
- Appendix C – Initial C-141 Forms & NMOCD Correspondence
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Reports



## ***Figures***

1 – EnviroClean Summary

2 – Pima Summary

3 – Proposed Sampling Map

4 – Karst Map

5 – Topographic Map

6 – Location Map

7 – LPC-Dune Lizard Maps

8 – Plant/Wildlife Map

Visit our website at [www.envirocleanps.com](http://www.envirocleanps.com)

Chronology of Events  
 Devon Energy Corporation  
 Shugart 23 Federal Com. #1  
 Sec. 23-T18S-R31E  
 Eddy County, New Mexico

**10/11/11**

12:30 p.m. Arrive on the location. Hold safety meeting.

12:45 p.m. Begin collecting soil samples.

1:30 p.m. Completed sampling. Depart from the location en route to Devon TNT 6 Federal Com #1 location.

Sample: 001			
Sample Date	Method	Test	Results (mg/kg)
10/11/11	BTEX 8021B	Benzene	17.45
10/11/11	BTEX 8021B	Toluene	207
10/11/11	BTEX 8021B	Ethylbenzene	130
10/11/11	BTEX 8021B	Total Xylenes	299
10/11/11	TPH 8015M	GRO C6-C10	2,880
10/11/11	TPH 8015M	DRO >C10-C28	88,800
10/11/11	TPH 8015M	EXT DRO >C28-C35	2,910

Sample: 001A			
Sample Date	Method	Test	Results (mg/kg)
10/11/11	BTEX 8021B	Benzene	0.746
10/11/11	BTEX 8021B	Toluene	5.23
10/11/11	BTEX 8021B	Ethylbenzene	2.26
10/11/11	BTEX 8021B	Total Xylenes	4.60
10/11/11	TPH 8015M	GRO C6-C10	<100
10/11/11	TPH 8015M	DRO >C10-C28	4,210
10/11/11	TPH 8015M	EXT DRO >C28-C35	<100

Sample: 001B			
Sample Date	Method	Test	Results (mg/kg)
10/11/11	BTEX 8021B	Benzene	0.208
10/11/11	BTEX 8021B	Toluene	5.20
10/11/11	BTEX 8021B	Ethylbenzene	3.65
10/11/11	BTEX 8021B	Total Xylenes	9.36
10/11/11	TPH 8015M	GRO C6-C10	<100
10/11/11	TPH 8015M	DRO >C10-C28	4,100
10/11/11	TPH 8015M	EXT DRO >C28-C35	<100

Sample: 002			
Sample Date	Method	Test	Results(mg/kg)
10/11/11	BTEX 8021B	Benzene	0.110
10/11/11	BTEX 8021B	Toluene	1.58
10/11/11	BTEX 8021B	Ethylbenzene	0.949
10/11/11	BTEX 8021B	Total Xylenes	6.05
10/11/11	TPH 8015M	GRO C6-C10	<100
10/11/11	TPH 8015M	DRO >C10-C28	18,900
10/11/11	TPH 8015M	EXT DRO >C28-C35	350

Sample: 002A			
Sample Date	Method	Test	Results(mg/kg)
10/11/11	BTEX 8021B	Benzene	8.85
10/11/11	BTEX 8021B	Toluene	51.7
10/11/11	BTEX 8021B	Ethylbenzene	19.5
10/11/11	BTEX 8021B	Total Xylenes	194
10/11/11	TPH 8015M	GRO C6-C10	12,800
10/11/11	TPH 8015M	DRO >C10-C28	54,800
10/11/11	TPH 8015M	EXT DRO >C28-C35	1,330

**2/5/12**

1:00 p.m. Arrive at the yard. Load equipment and supplies.

1:40 p.m. Depart from the yard en route to the hotel.

11:30 p.m. Arrive at the hotel in New Mexico.

**2/6/12**

4:00 p.m. Depart from another location en route to the location.

4:20 p.m. Arrive on the location, unload equipment, and hold safety meeting.

4:30 p.m. Begin excavating the impacted soil inside of the tank battery with the mini-excavator to a maximum depth of 3'. Begin building a bio-cell to contain the excavated impacted soil.

5:30 p.m. Completed building the berm for the bio-cell. Begin hauling the impacted soil from the tank battery to the bio-cell with a tractor loader.

6:50 p.m. Discontinued operations. Depart from the location en route to the hotel.

7:30 p.m. Arrive at the hotel.

**2/7/12**





- 6:00 a.m. Depart from the hotel en route to the location.
- 7:00 a.m. Arrive on the location. Hold safety meeting.
- 7:10 a.m. Resume excavating the impacted soil inside of the tank battery and hauling the impacted soil to the bio-cell. The impacted soil in the bio-cell will be spread at a depth of 6-8 inches.
- 9:30 a.m. Completed excavating. Begin tilling the base of the excavation with the tracloader and tiller attachment. Begin scraping and stockpiling soil from the location. The soil will be used as backfill for the excavation.
- 12:10 p.m. Completed tilling the base of the excavation. Begin tilling the impacted soil in the bio-cell.
- 1:45 p.m. Completed tilling the impacted soil in the bio-cell. Begin treating the base of the excavation with an EnviroClean solution.
- EnviroClean is a blend of surfactants and wetting agents that is listed on the EPA's National Contingency Plan (NCP) as a Surface Washing Agent. Treating with the EnviroClean desorbs and breaks up the hydrocarbon in the soil in a manner that makes it more available to the naturally occurring bacteria to utilize it as a food source. This increase in bioavailability expedites the time frame in which the hydrocarbons are biodegraded in the soil.
- 3:45 p.m. Completed treating the base of the excavation. Begin treating the impacted soil in the bio-cell with an EnviroClean solution. Begin backfilling the excavated area utilizing clean soil that was stockpiled from the location.
- 5:30 p.m. Completed treating the impacted soil in the bio-cell. Completed backfilling. Depart from the location en route to the hotel.
- 7:00 p.m. Arrive at the hotel.

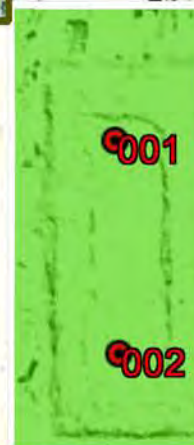


# Shugart 23 Fed Com #1

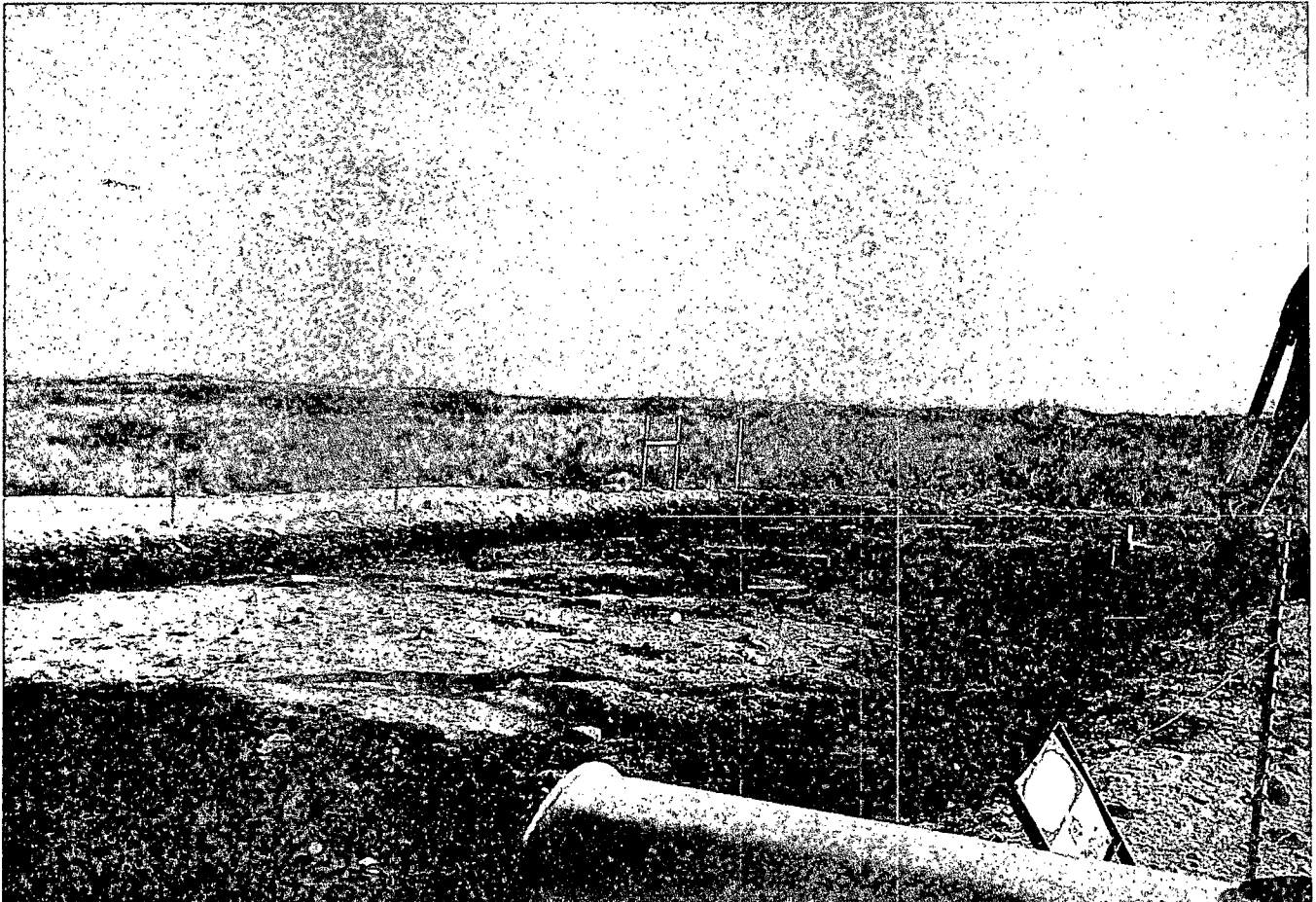
Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
EnviroClean Remediation Map  
March 2, 2012

## Legend

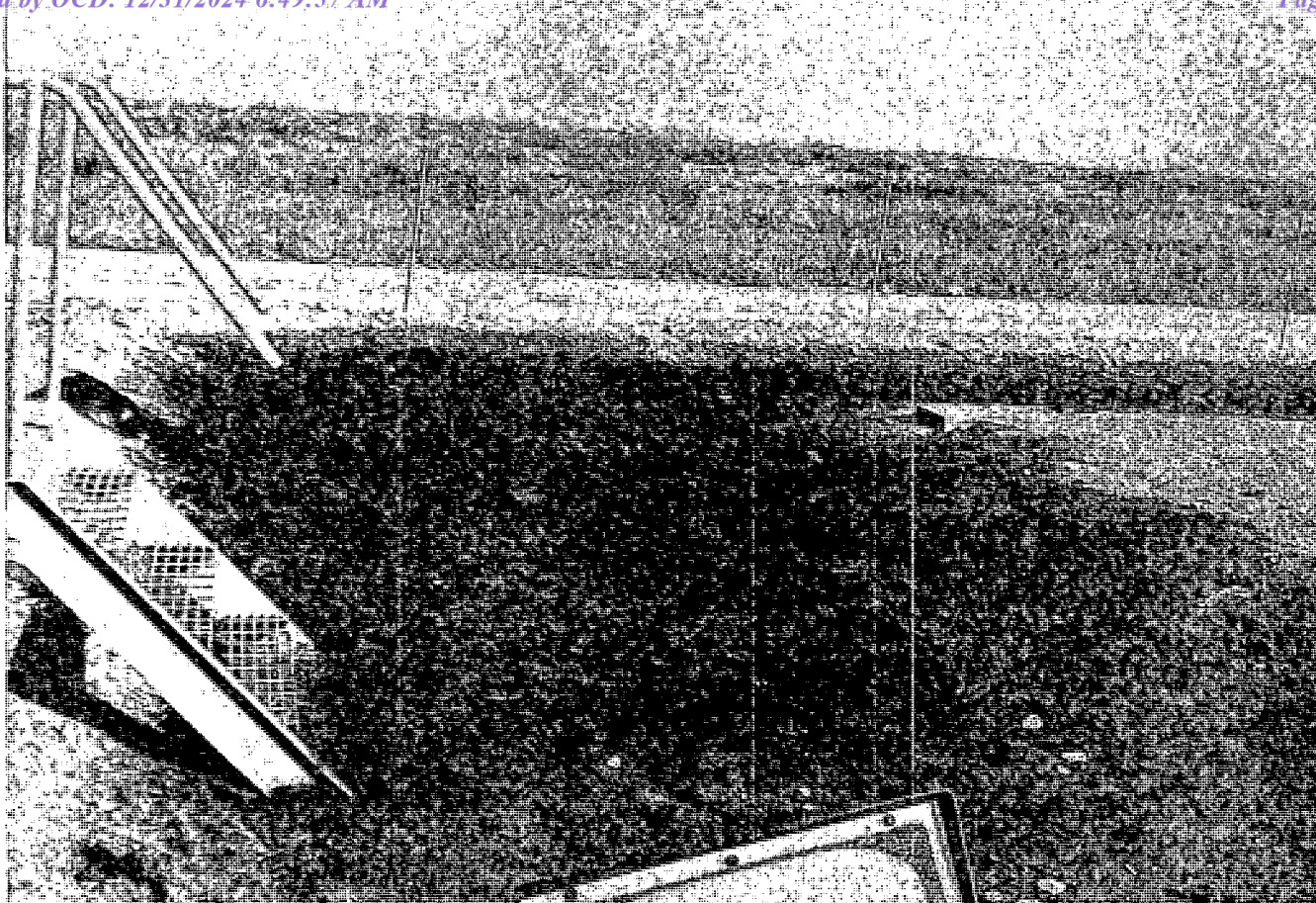
-  Area Treated by EnviroClean - 4,725 sqft
-  Bio-Cell Area - 4,765 sqft
-  Frac Tanks
-  Initial soil sample points











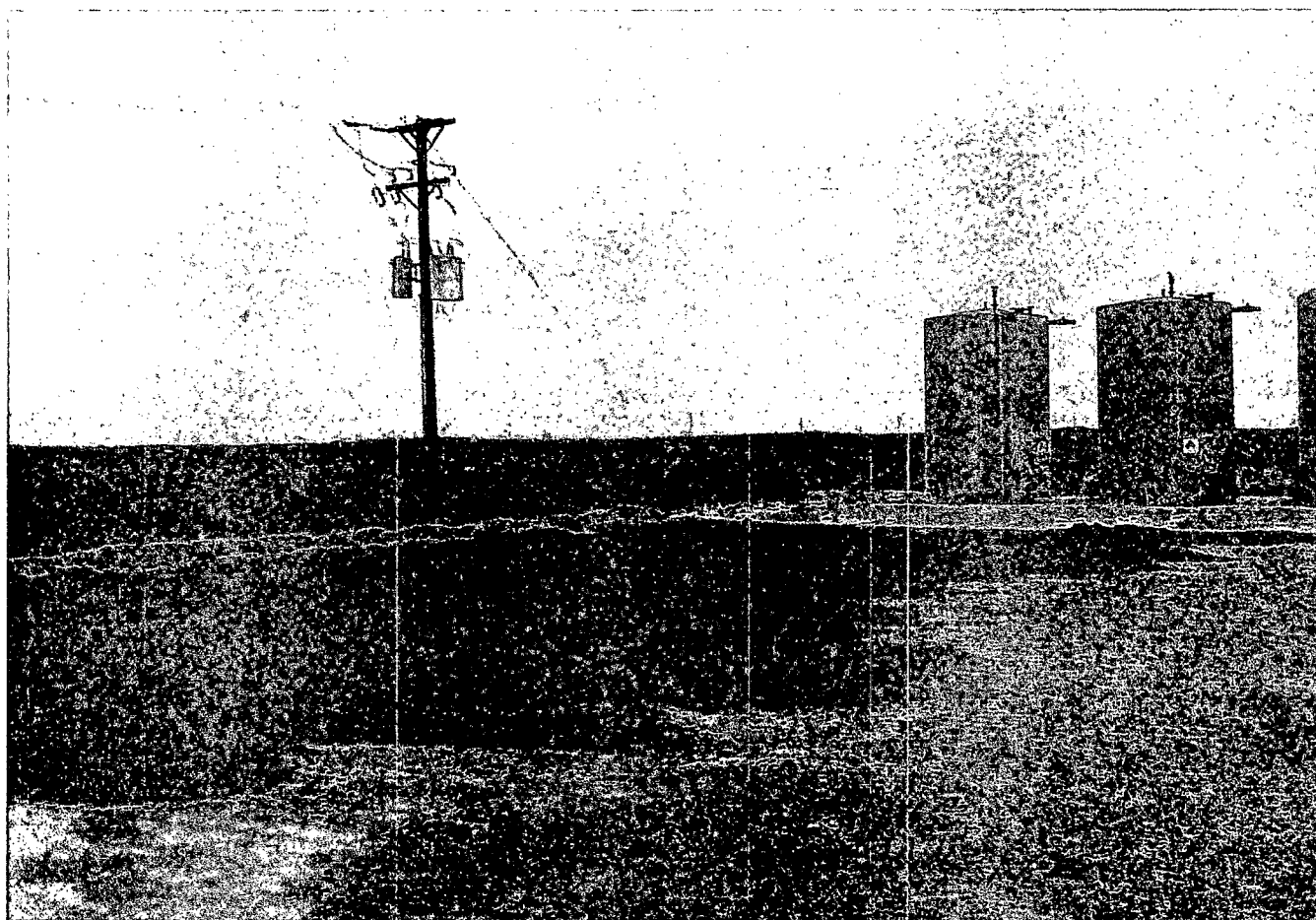
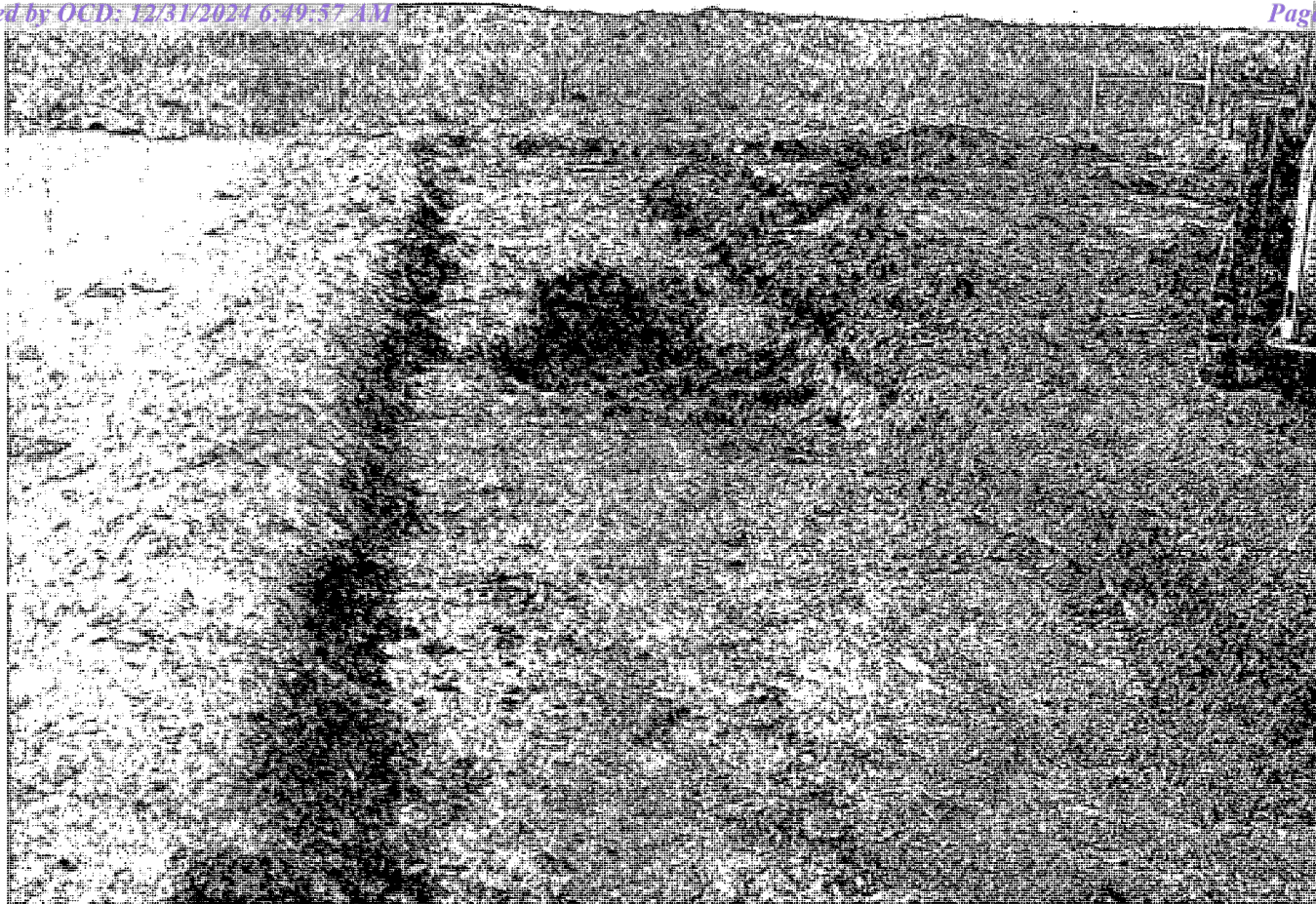




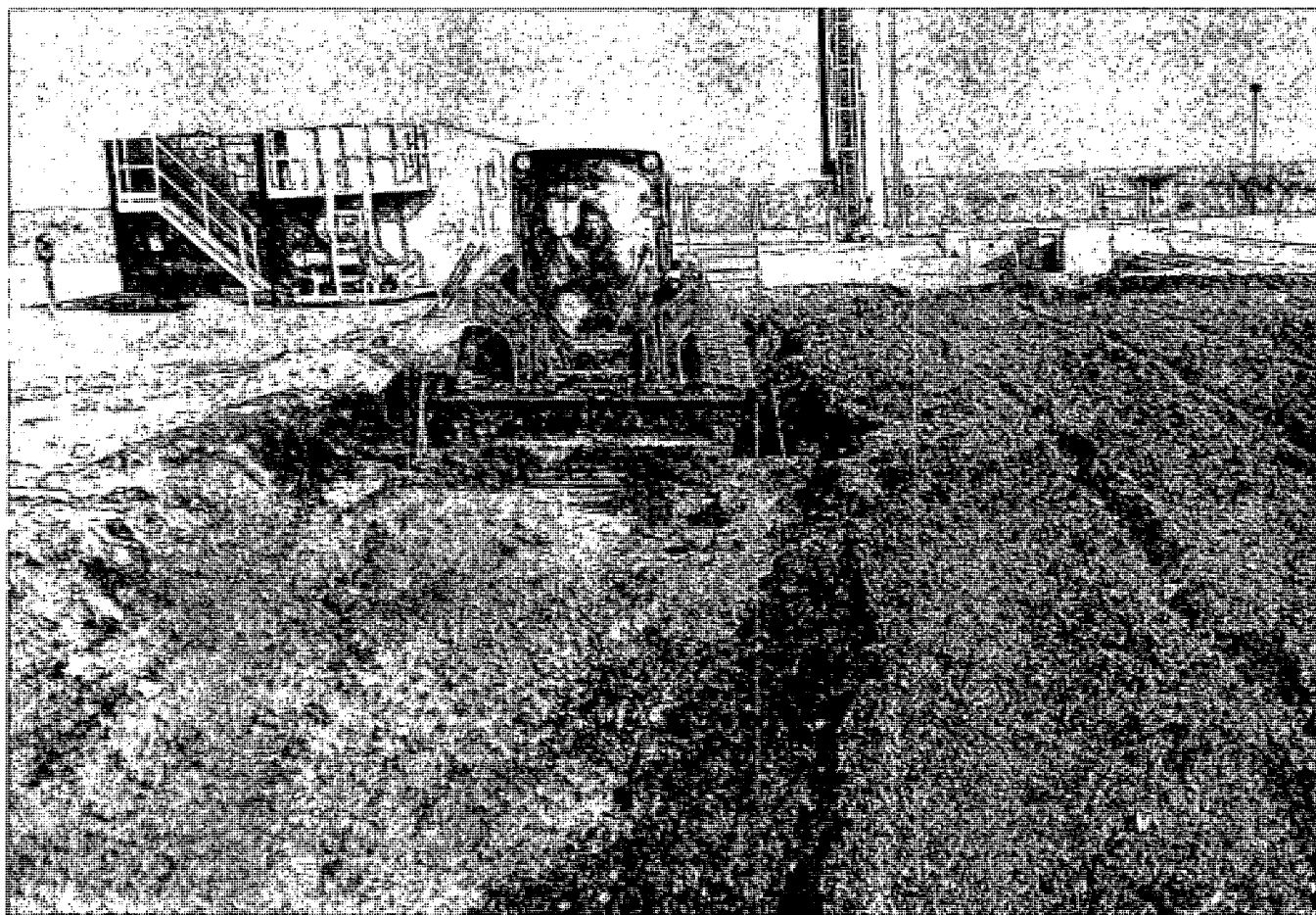
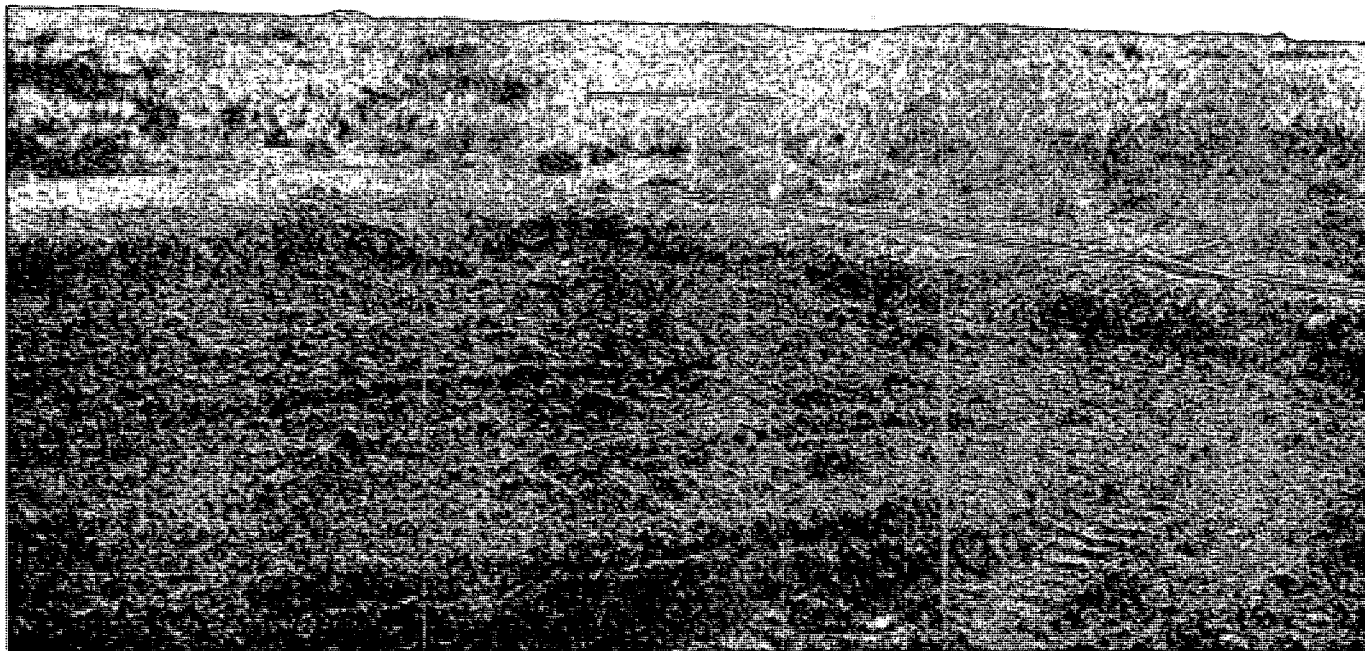




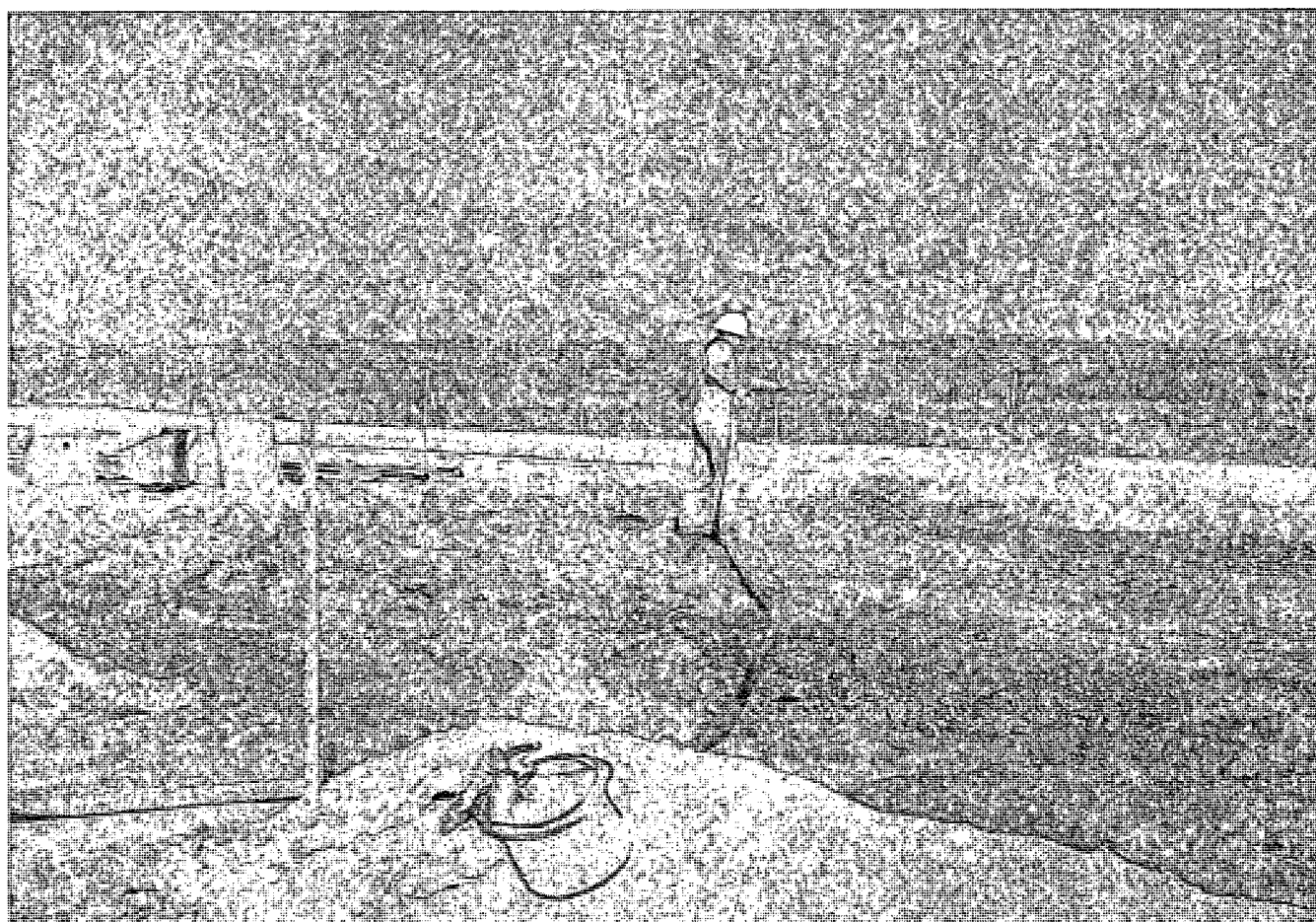
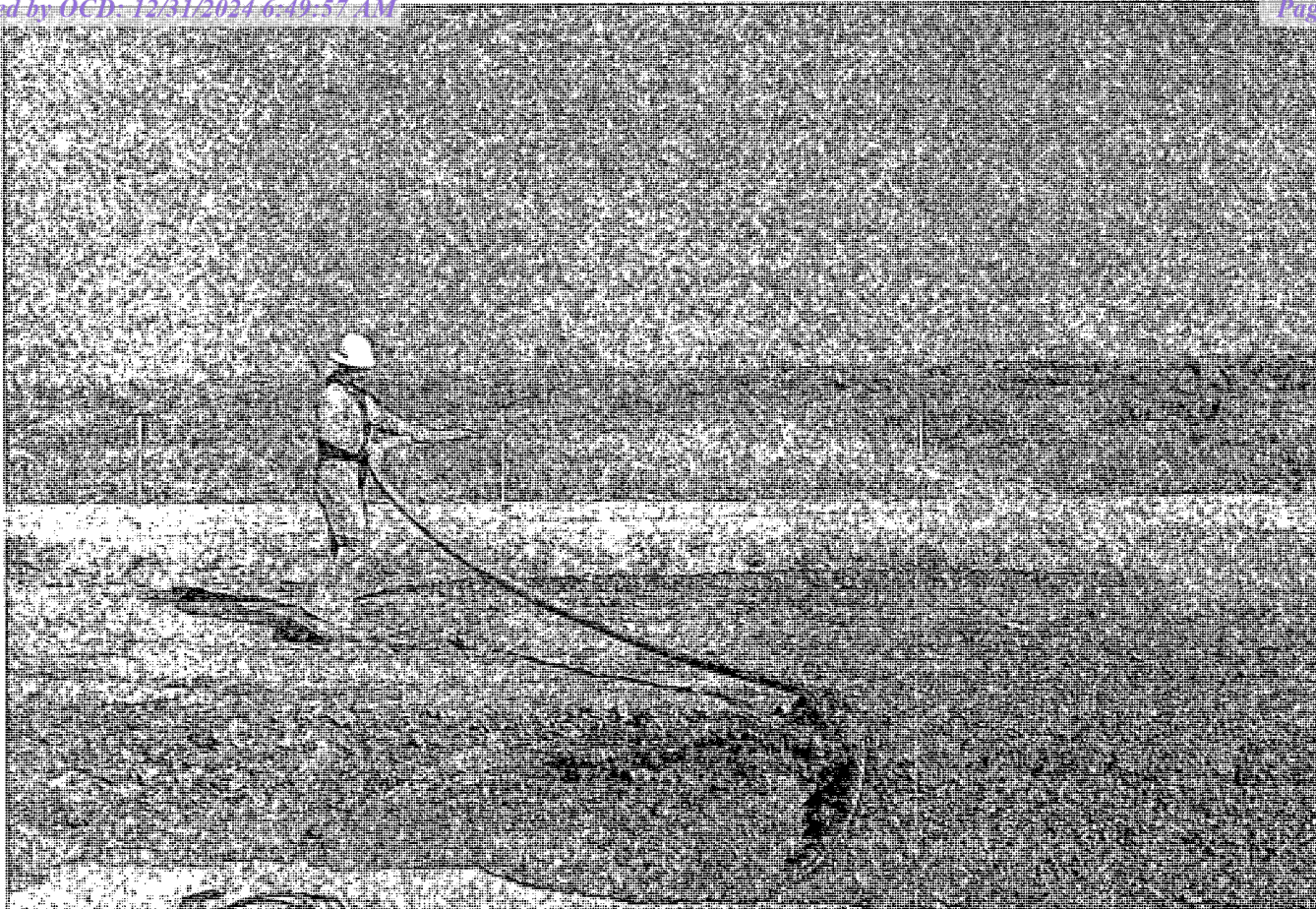




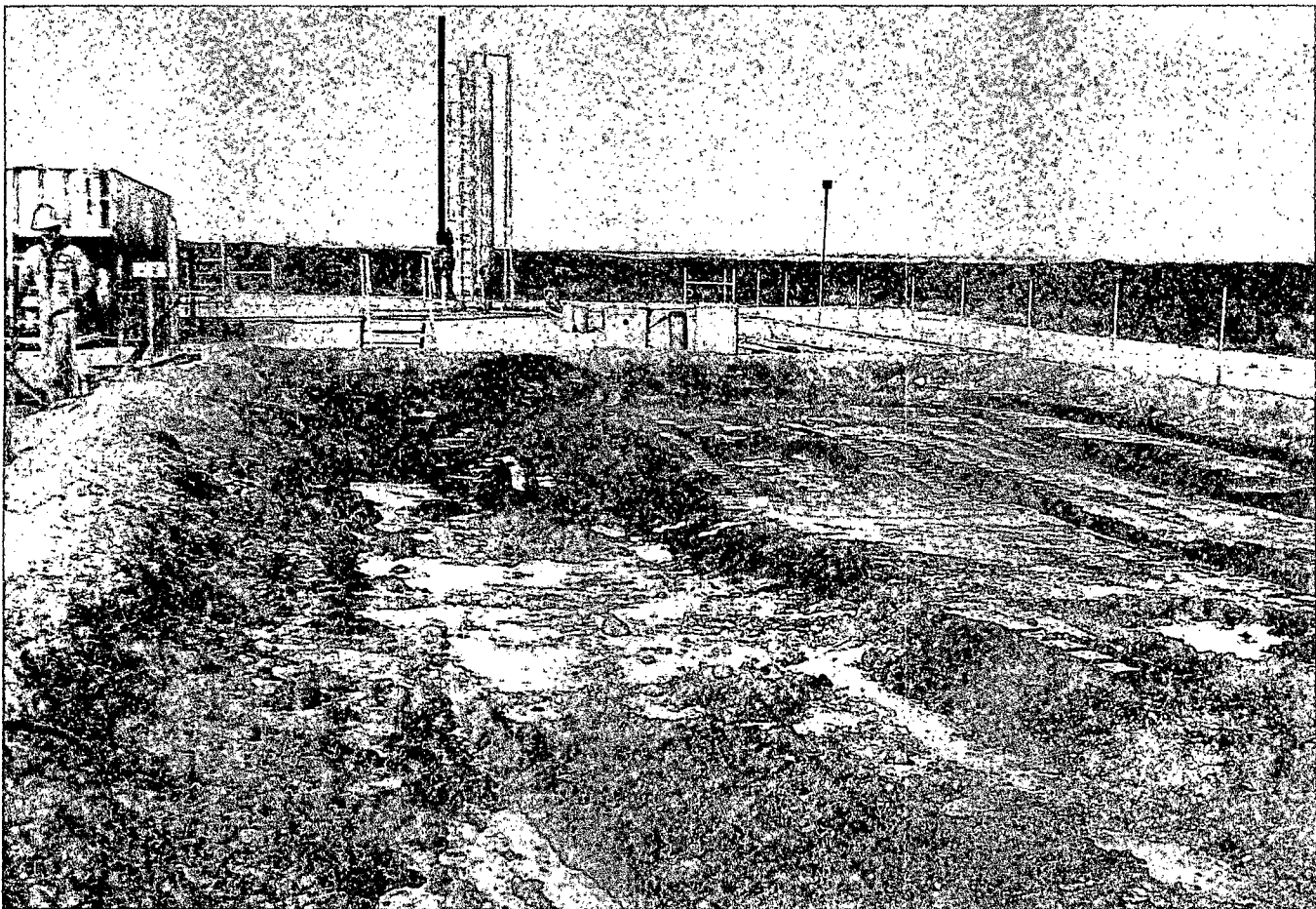




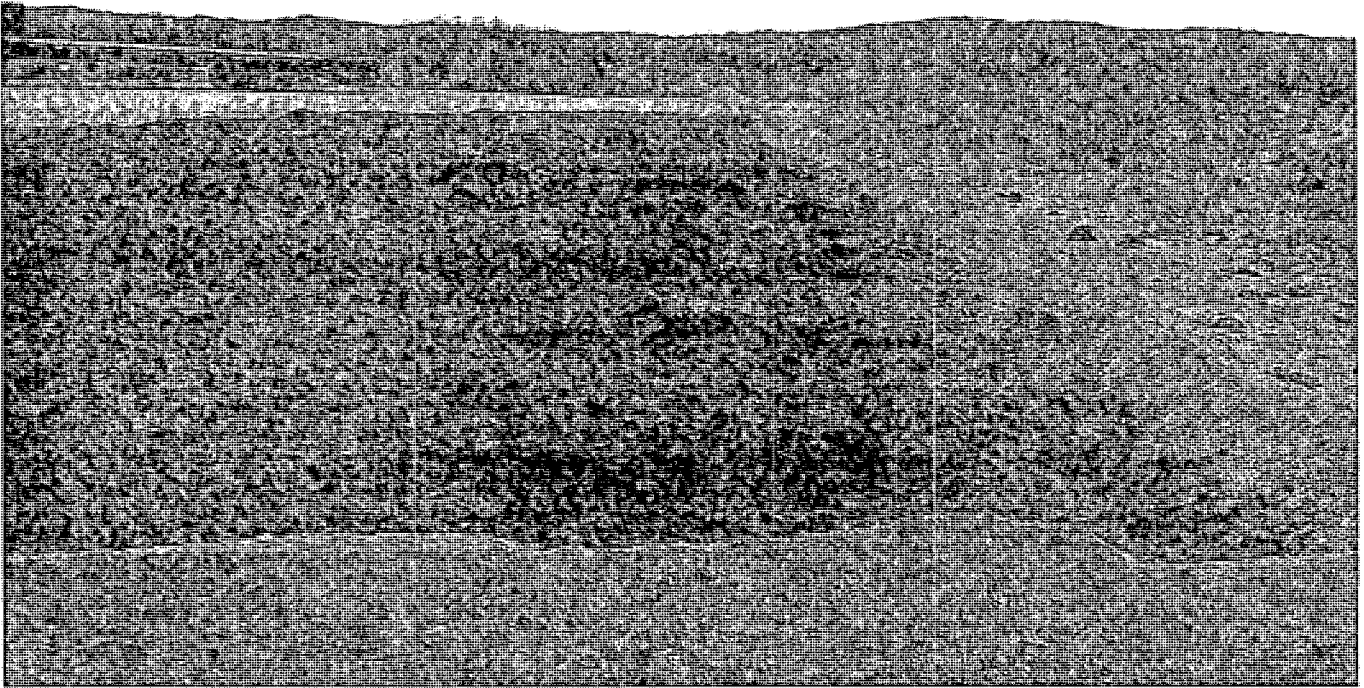




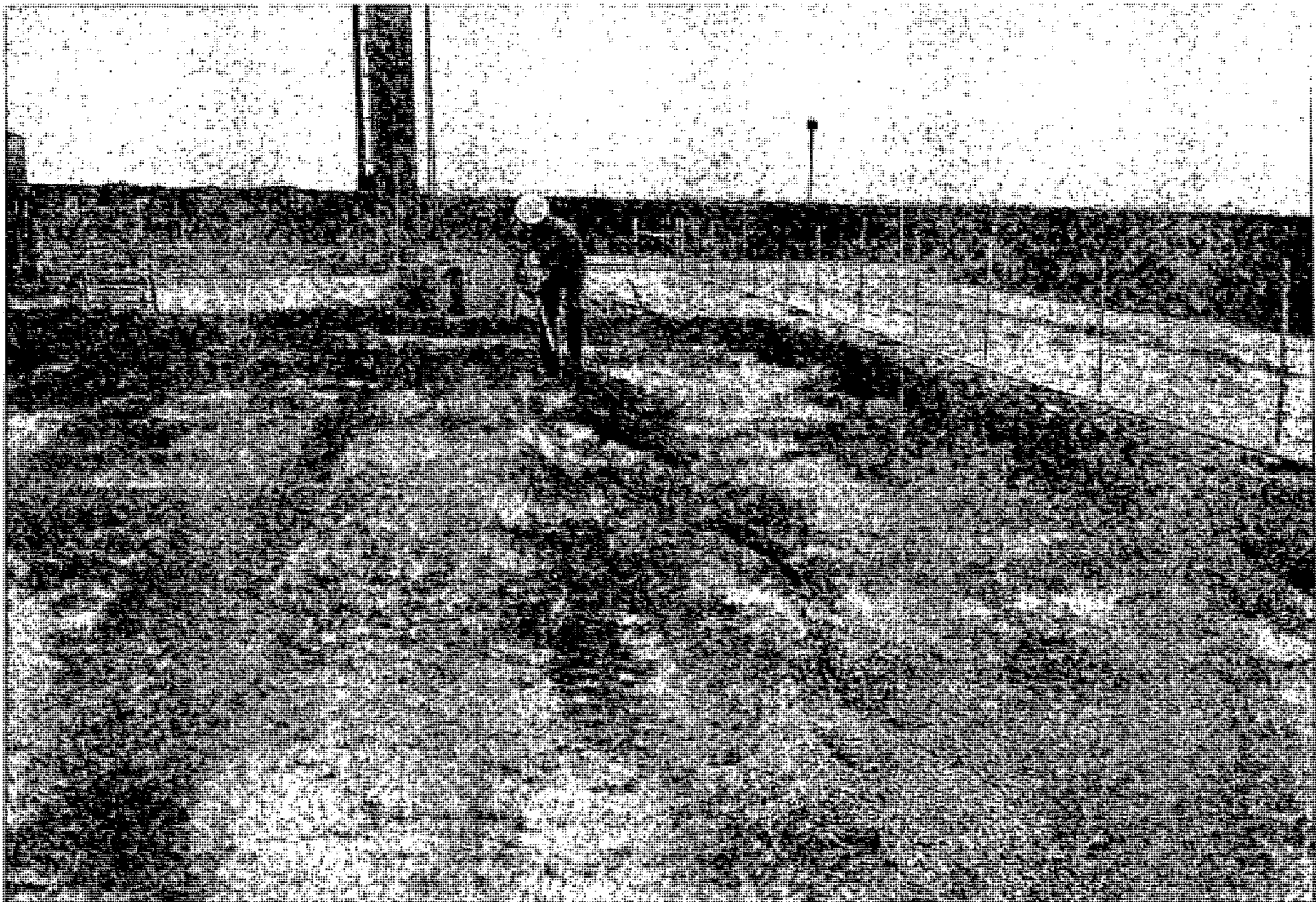
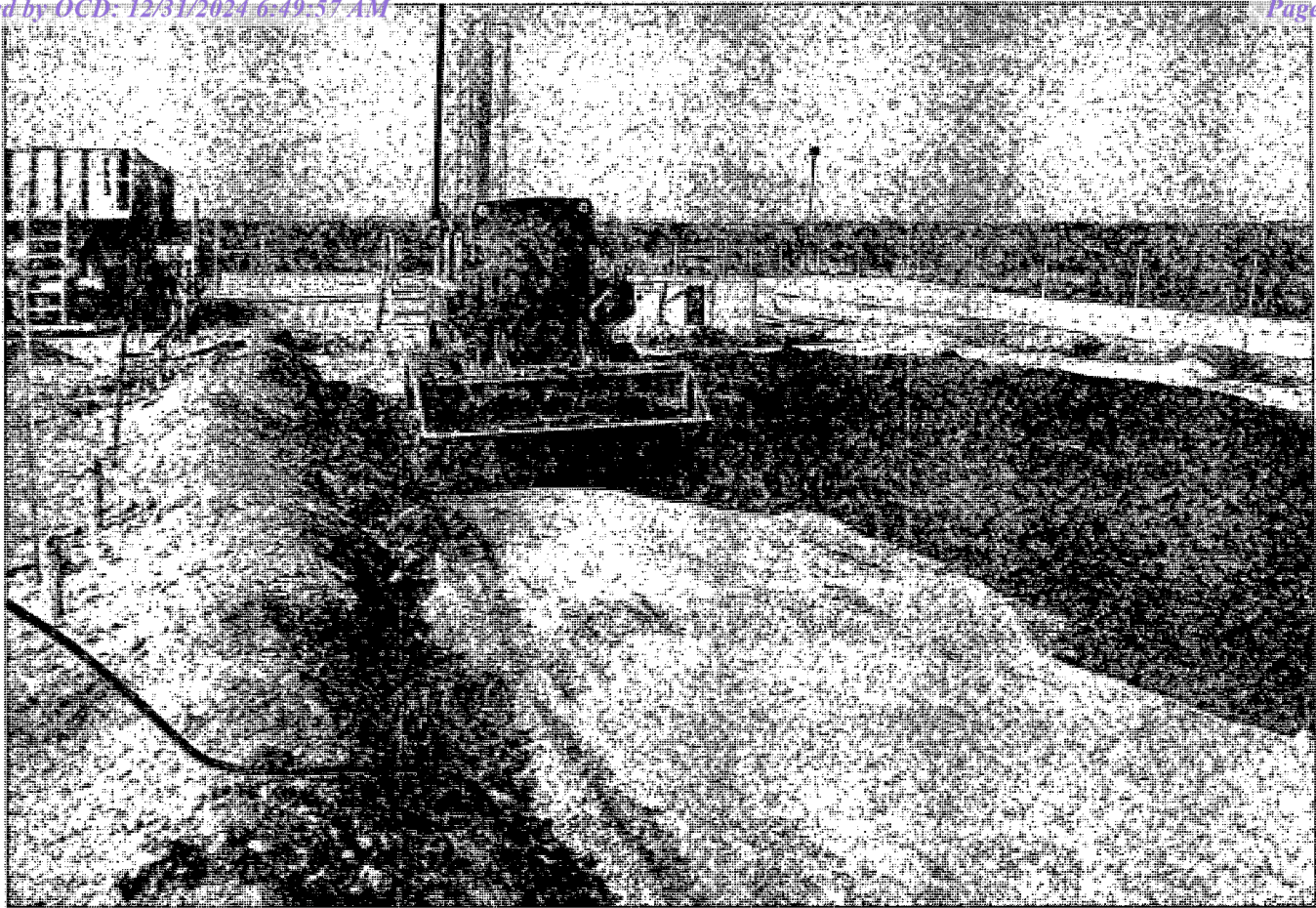




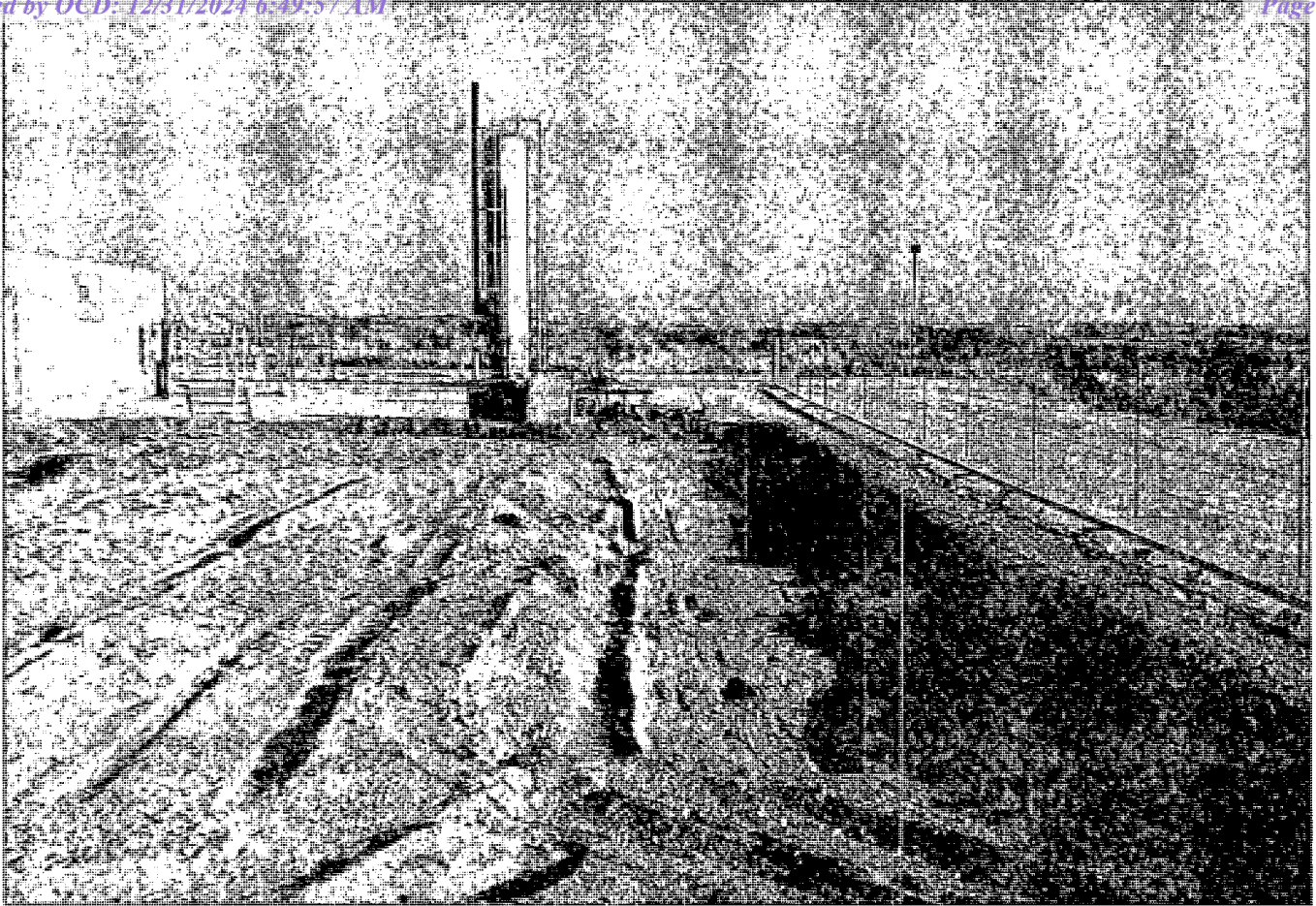














Pima Environmental Services, LLC  
1601 N. Turner Ste 500  
Hobbs, NM 88240  
575-964-7740

### Request for Incident Closure

**Re: Site Assessment and Closure Report  
Shugart 23 Fed Com #1  
API No. 30-015-30448  
GPS: Latitude 32.7303581      Longitude -103.838028  
UL "J", Sec. 23, T18S, R31E  
Eddy County, NM  
NMOCD Ref. No. 2RP-896**

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a spill assessment and has prepared this Closure Report for an oil and produced water release that occurred at the Shugart 23 Fed Com 1 (Shugart). The initial C-141 was submitted on 9-12-11 (Appendix C). This incident was assigned 2RP-896, Incident ID NMLB1125557019 by the New Mexico Oil Conservation Division (NMOCD).

#### Site Characterization

The Shugart is located approximately thirty-one (31) miles northeast of Carlsbad, NM. This spill site is in Unit J, Section 23, Township 18S, Range 31E, Latitude 32.7303581, Longitude -103.838028, Eddy County, NM.

#### Release Information

2RP-896: On September 4, 2011, a hole in the tank was discovered and released 70 bbls of oil. A vac truck was dispatched and recovered the 31 bbls of oil.



**Site Assessment and Soil Sampling Results**

On July 8, 2020, Pima Environmental conducted a site assessment and obtained soil samples. The laboratory results of this sampling event can be found in the following data table.

**7-8-20 Sampling Event**

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 7-8-20		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
S-1	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-2	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-3	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-4	0-6"	ND	ND	ND	14	ND	14	1800
	1	ND	ND	ND	420	540	960	1500
	2	ND	ND	ND	1800	2100	3900	950
S-5	0-6"	ND	ND	ND	1000	1500	2500	950
	1	ND	ND	ND	1100	1600	2700	1300
	2	ND	ND	ND	480	810	1290	690
S-6	0-6"	ND	ND	ND	550	590	1140	200
	1	ND	ND	ND	910	1700	2610	110
	2	ND	ND	ND	880	1400	2280	110
S-7	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-8	0-6"	ND	ND	ND	19	ND	19	ND
	1	ND	ND	ND	88	130	218	ND
	2	ND	ND	ND	380	760	1140	ND
S-9	0-6"	ND	ND	ND	1700	2100	3800	1000
	1	ND	ND	ND	2300	2600	4900	870
S-10	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	390	830	1220	ND
	2	ND	ND	ND	150	350	500	76
S-11	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-12	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND
S-13	0-6"	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	ND

ND-Analyte Not Detected



**Remediation Activities**

Pima returned to the site and retreated the soil with a 10% Micro blaze solution injection and topical treatment. We allowed 60 days for the microbes to take affect and returned to the site and re-sampled. The results of our sampling event are presented on the following data tables.

**10-21-20 Sampling Event**

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is 51-100')					
Sample Date 10-21-20					
Sample ID	Depth (BGS)	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg
S-4	0-3	ND	11	79	90
S-5	0-1	ND	ND	ND	ND
S-6	0-1	ND	ND	ND	ND

ND-Analyte Not Detected

**11-25-20 Sampling Event**

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is 51-100')					
Sample Date 11-25-20					
Sample ID	Depth (BGS)	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg
S-9	0-1	ND	ND	ND	ND

ND-Analyte Not Detected

**Closure Request**

After careful review, Pima requests that the incident, NMLB1125557019, be closed. Devon has complied with the applicable closure requirements.

Should you have any questions or need additional information, please feel free to contact Chris Jones at 575-964-7740 or [chris@pimaoil.com](mailto:chris@pimaoil.com).

Respectfully,



Chris Jones  
Environmental Professional  
Pima Environmental Services, LLC

**Attachments**

Figures:

1- Site Map

Appendices:

Appendix A- Photographic Documentation

Appendix B- Final C-141

Appendix C- Laboratory Results



# Devon Energy

Shugart 23 Fed Com #1  
API 30-015-30448  
Eddy County, NM  
Site Map

## Legend

- Samples
- Shugart 23 Fed Com #1

Shugart 23 Fed Com #1

S-1 S-2  
S-3 S-4  
S-5 S-6  
S-7 S-8  
S-9 S-10  
S-11 S-13  
S-12



100 ft

Google Earth



### Photographic Documentation










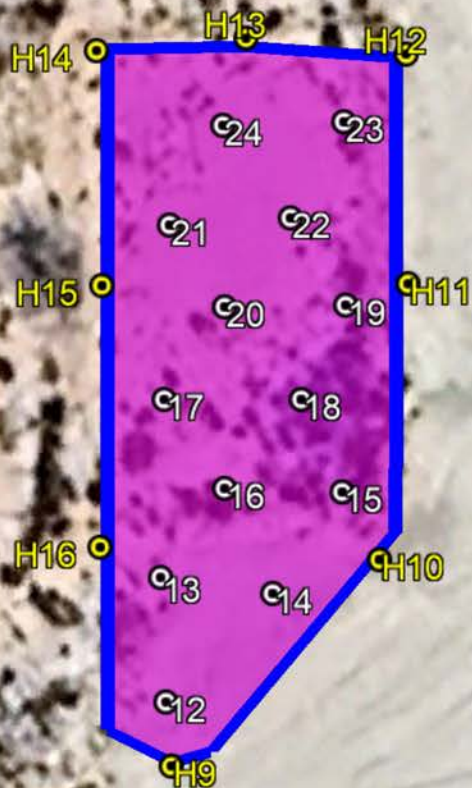
# Shugart 23 Fed Com #001


Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Proposed Sampling Map

## Legend

-  Area Treated by EnviroClean - 4,725 sqft
-  Areas MicroBlazed by Pima - 1,545 sqft
-  Bio-Cell Area - 4,765 sqft
-  Horizontal delineation samples
-  Vertical delineation samples

Shugart 23 Fed Com 1



 32.729909, -103.838335






100 ft



# Shugart 23 Fed Com #1

Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Karst Map

## Legend

-  High Karst
-  Low Karst
-  Medium Karst

Shugart 23 Fed Com 1

Google Earth



3 mi

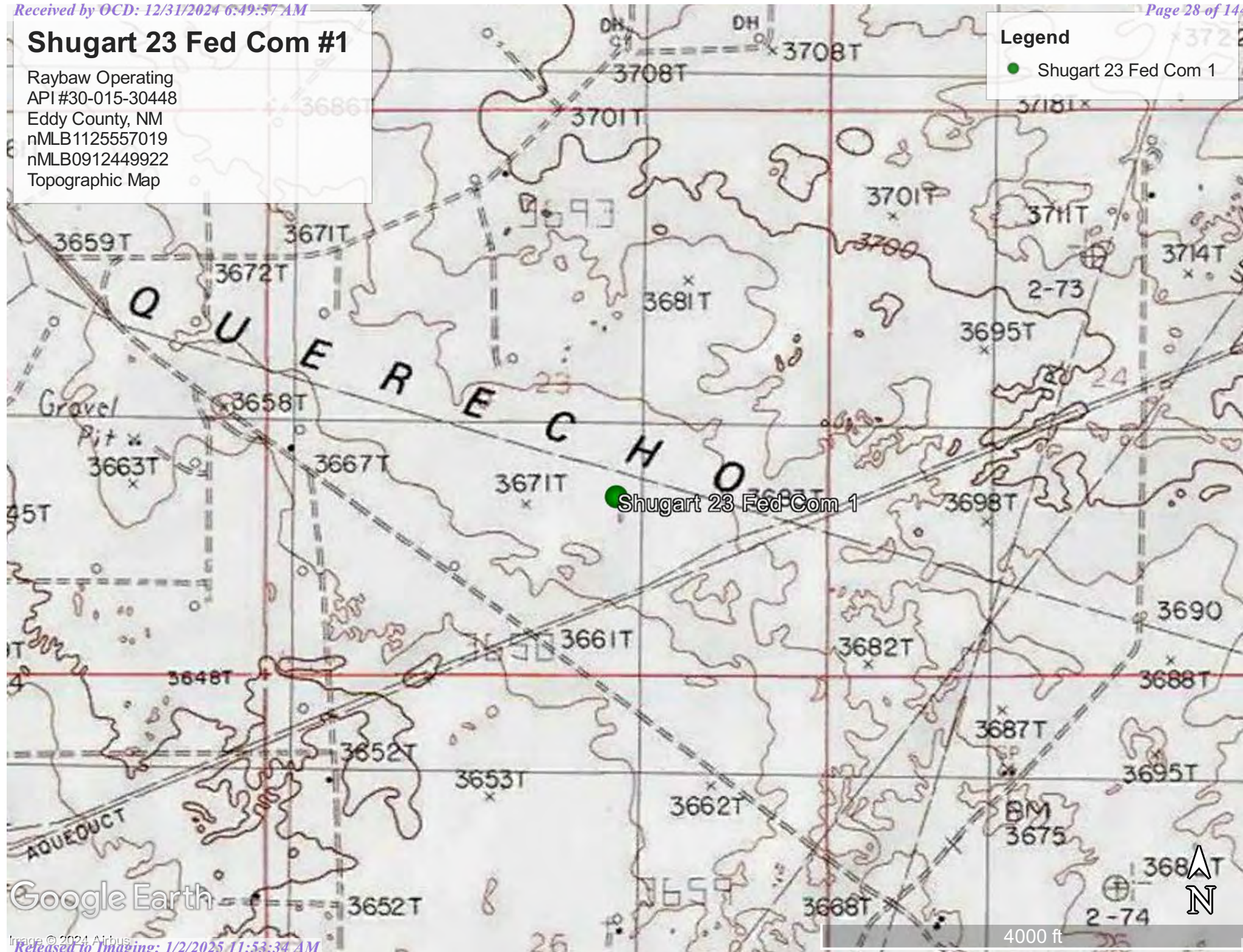


## Shugart 23 Fed Com #1

Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Topographic Map

### Legend

● Shugart 23 Fed Com 1



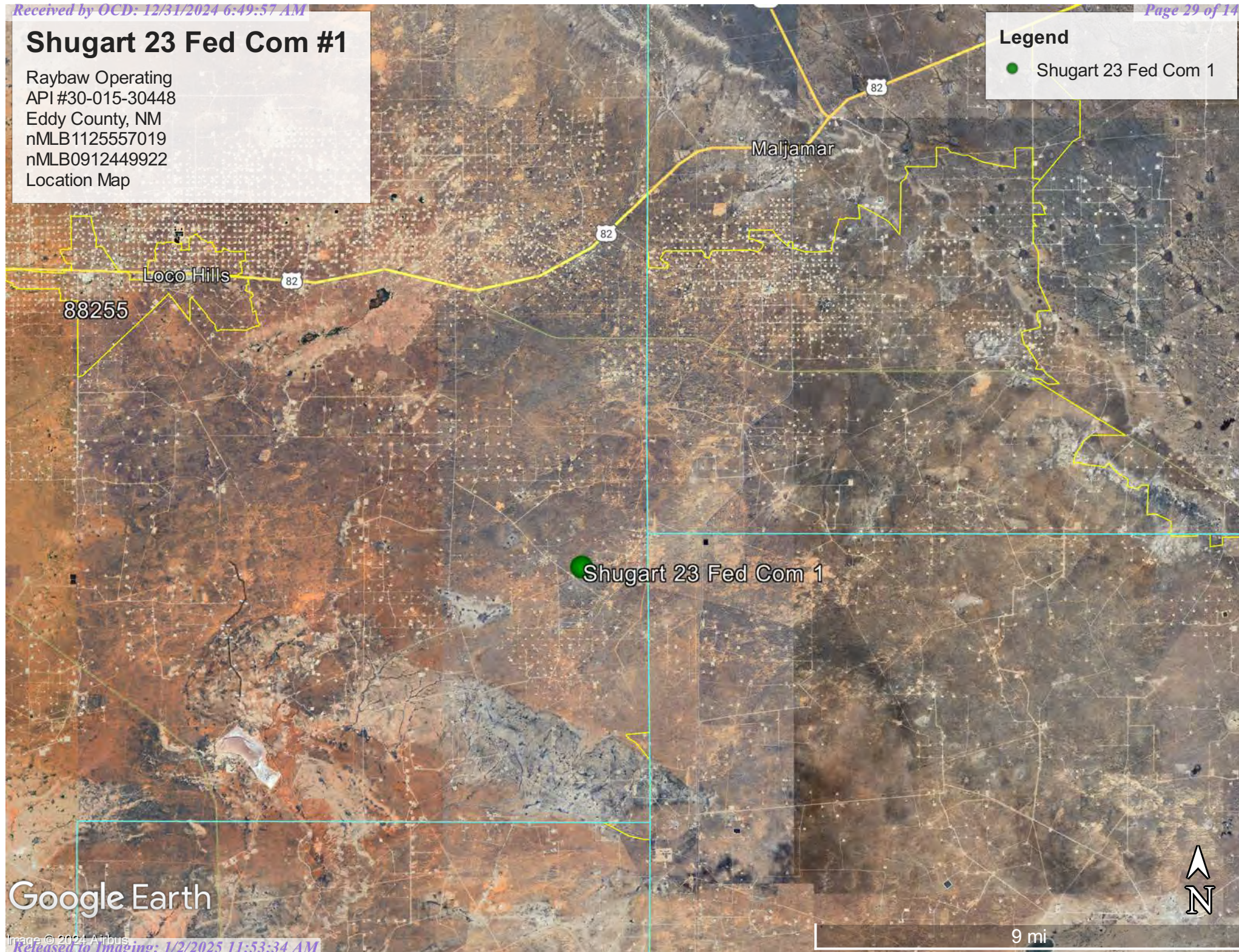


# Shugart 23 Fed Com #1

Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Location Map

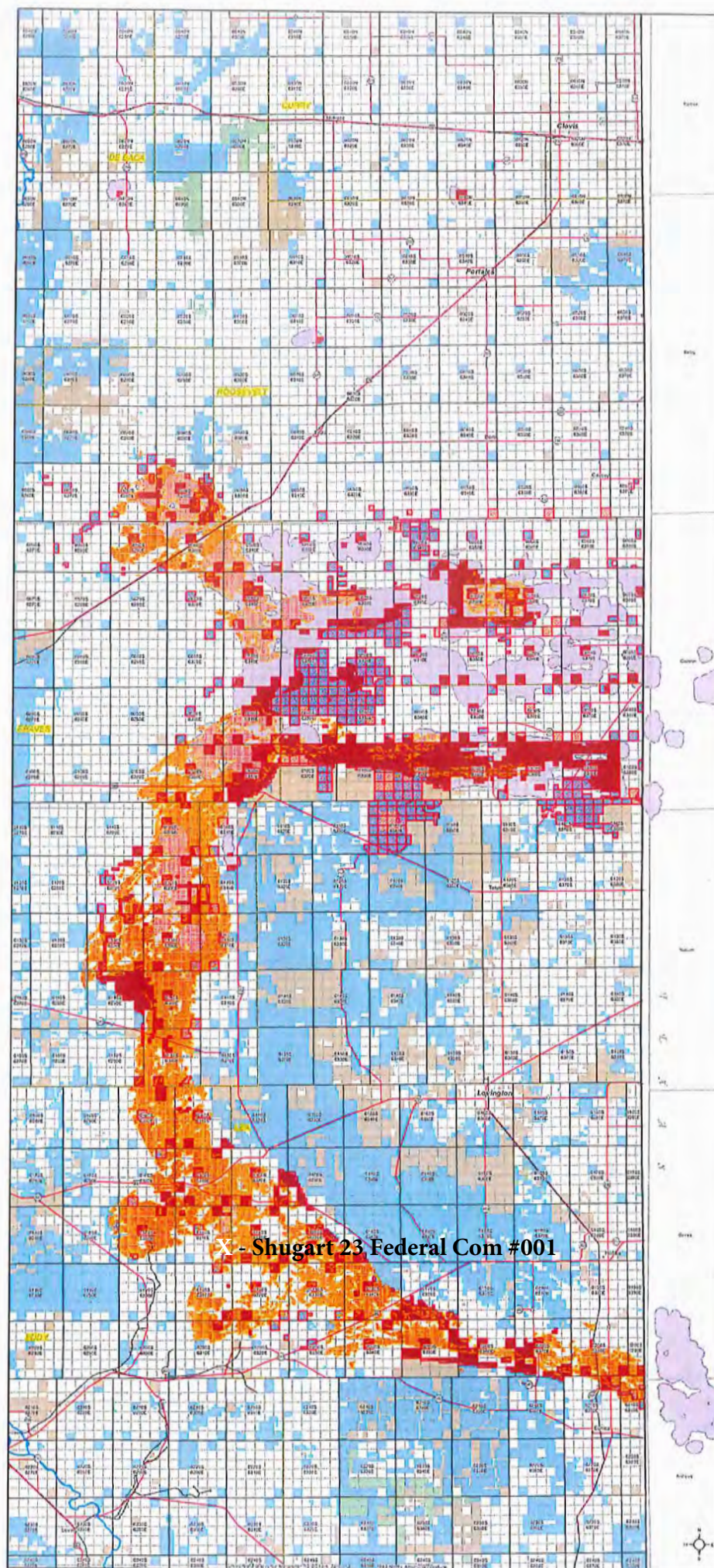
## Legend

● Shugart 23 Fed Com 1



Google Earth





NEW MEXICO

## STATE LAND OFFICE

*When we Take Care of our Land, Our Land Takes Care of us!*

Ray Powell, M.S., D.V.M.  
Commissioner of Public Lands  
505-827-5760  
[www.nmslandlands.org](http://www.nmslandlands.org)

March 20, 2014 Revisions  
to Lesser Prairie-Chicken  
and Sand Dune  
Sagebrush Lizard  
CCAA CI-OGOP-025



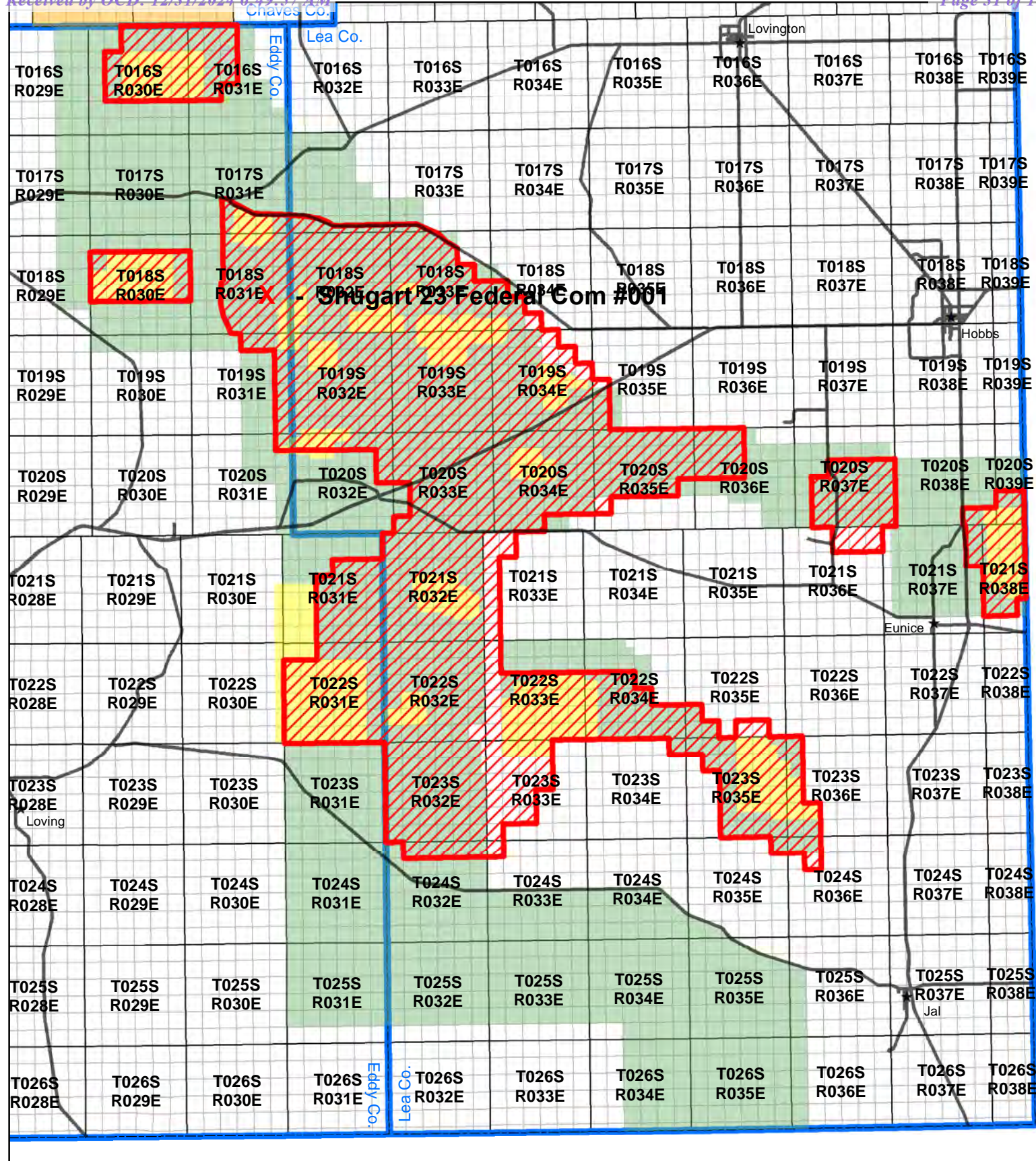
### Legend

- Legend**
- Additional State Trust Lands Inclusion
  - Rivers
  - Towns
  - County Seats
  - Roads**
    - Interstate Highway
    - US Highway
    - State Highway
    - Railroads
  - Trust Lands within CCAA, March 2012
    - Surface Estate
    - Subsurface Estate
    - Surface and Subsurface Estate
    - Core Habitat, Lesser Prairie Chicken
    - Updated Sand Dune Lizard Habitat



*The New Mexico State Land Office assumes no responsibility or liability for, or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer.*





## LPC Timing Area 2021

Southern Map



— NM Major Roads

LPC Timing Restriction Area

NM Counties

### RMPA Zones

Habitat Area

Sparse and Scattered Population Area

Isolated Population Area

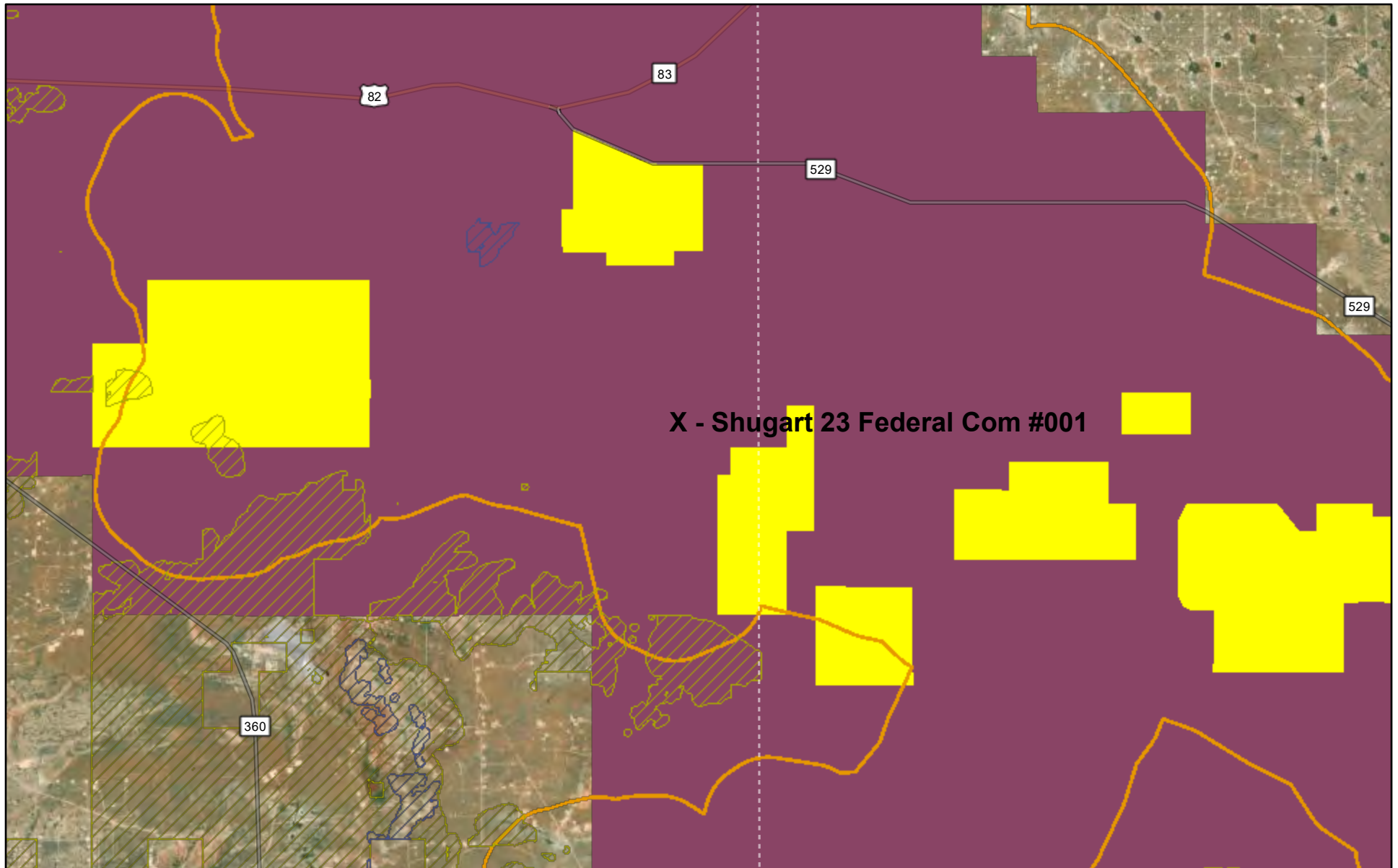
This Timing Restriction Map only applies to Carlsbad FO

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data was compiled from various sources. Data collection may not meet National Map Accuracy Standards. This information may be updated without notification.





## Plant/Wildlife Map



12/20/2024

Potential Habitat (Planning Area Only)

Scheer's beehive cactus

Tharp's blue-star

Dunes Sage Brush Lizard Habitat

Lesser Prairie Chicken Habitat

Habitat Evaluation Area

Isolated Population Area

World Imagery

Low Resolution 15m Imagery

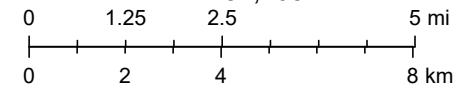
High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

38m Resolution Metadata

1:187,205



Earthstar Geographics, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS, Bureau of Land



## ***Appendix A***

Water Surveys

Water-Related Maps





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 smallest to largest)

(meters)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
<a href="#">CP 02011 POD1</a>		CP	ED	SW	SW	SW	10	19S	31E	606373.4	3615144.8		7226	105		
<a href="#">CP 01985 POD1</a>		CP	ED	NE	SE	NE	17	19S	31E	604666.5	3614438.3		8581	55		
<a href="#">RA 11590 POD1</a>		RA	ED	NE	NW	SW	32	17S	31E	603314.9	3628545.5		8614	158		
<a href="#">RA 11590 POD3</a>		RA	ED	SW	NW	NE	32	17S	31E	603931.8	3629260.3		8816	60		
<a href="#">RA 11590 POD4</a>		RA	ED	SE	NW	NW	32	17S	31E	603307.6	3629253.8		9173	55		
<a href="#">CP 01907 POD1</a>		CP	ED	SE	NE	NE	18	19S	31E	603017.2	3614737.1		9259			
<a href="#">RA 13465 POD1</a>		RA	ED	SE	NW	SE	23	17S	31E	608938.4	3631733.8		9797	101		
<a href="#">CP 00767 POD1</a>		CP	ED		SW	NE	35	18S	30E	599300.0	3619158.0 *		9936	500		

Average Depth to Water: 0 feet

Minimum Depth: 0 feet

Maximum Depth: 0 feet

Record Count: 8

Basin/County Search:  
County: ED

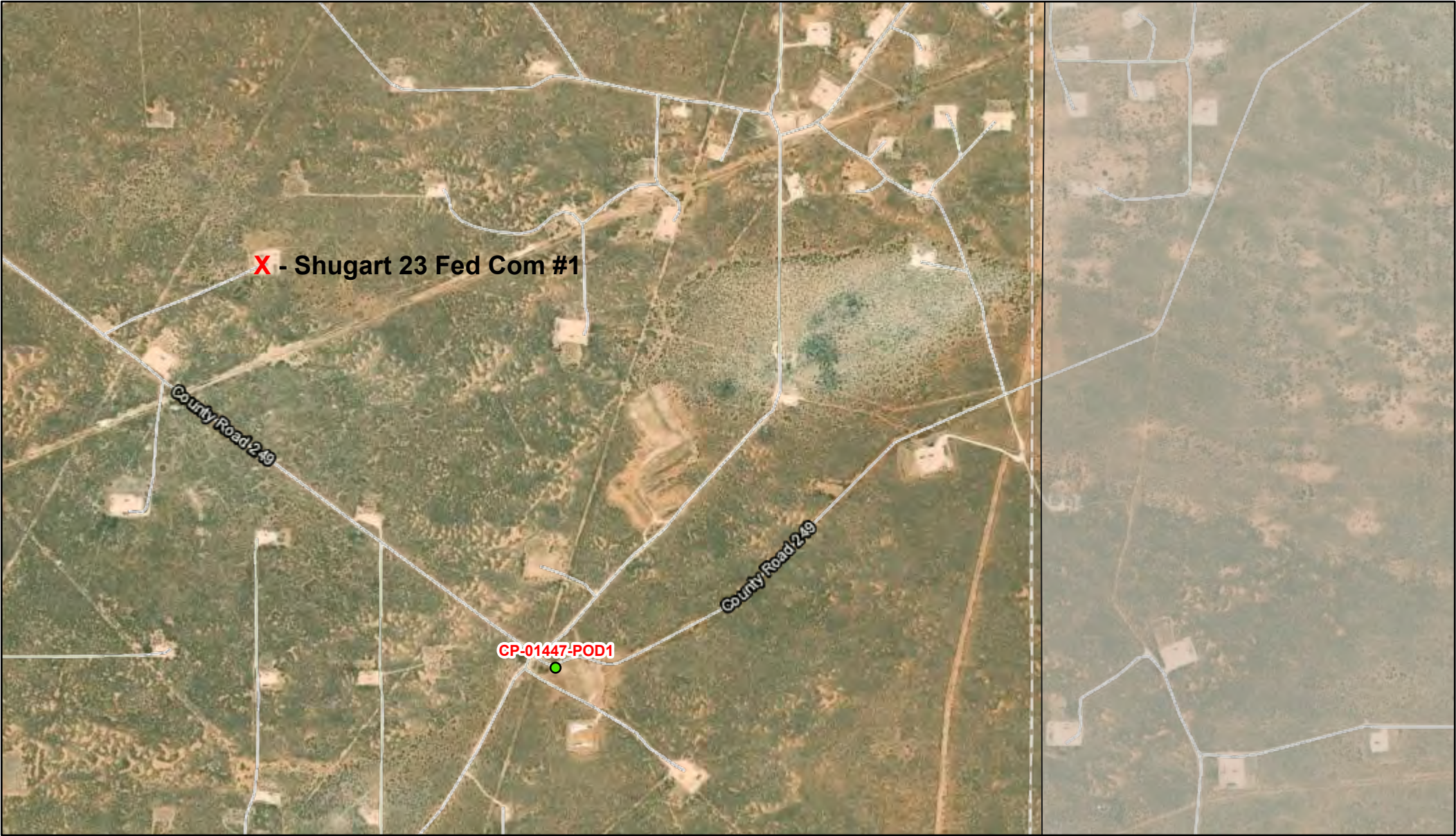
UTM Filters (in meters):  
Easting: 608840.41  
Northing: 3621936.91  
Radius: 10000

\* 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.



# OSE POD Location Map




11/26/2024, 1:22:18 PM

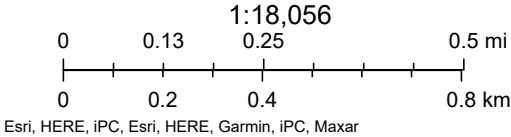
GIS WATERS PODs

Water Right Regulations

 Pending

 Closure Area

 OSE District Boundary







[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

### Search Results -- 1 sites found

site\_no list =

- 324502103495801

Minimum number of levels = 1

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

### USGS 324502103495801 18S.31E.14.22133

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°45'02", Longitude 103°49'58" NAD27

Land-surface elevation 3,736 feet above NAVD88

The depth of the well is 400 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

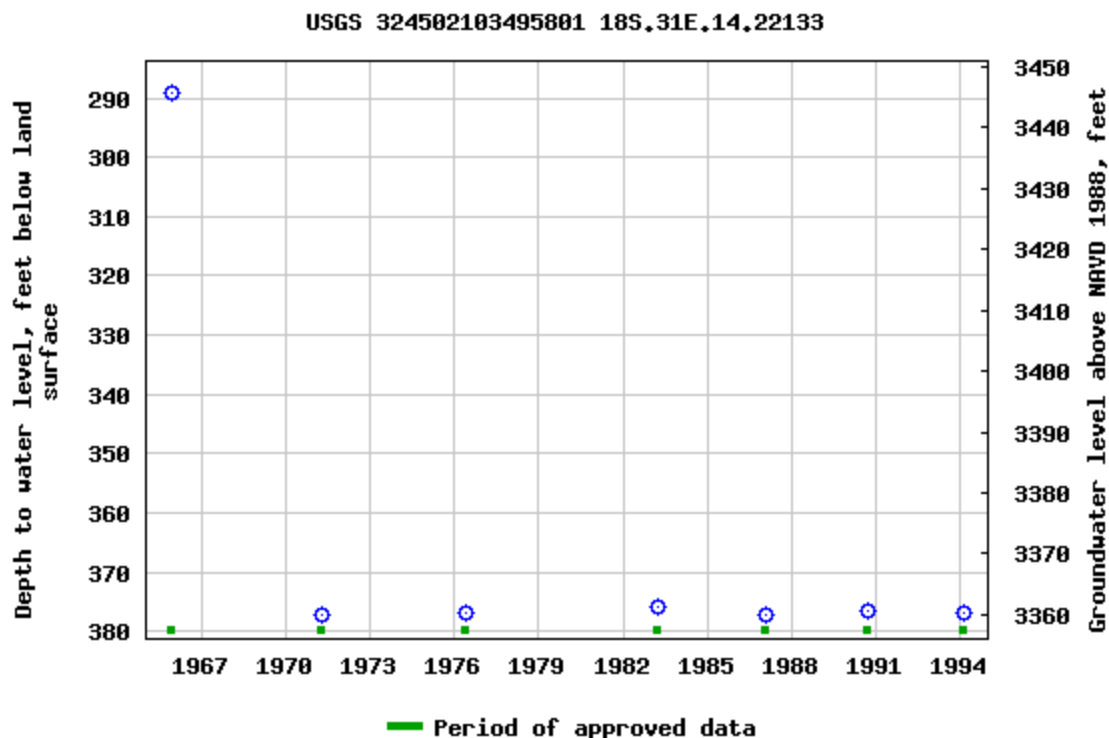
[Table of data](#)

[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](#)

[Questions or Comments](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

[Accessibility](#)

[FOIA](#)

[Privacy](#)

[Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2024-11-26 14:25:53 EST

0.66 0.46 nadww02





## National Water Information System: Mapper



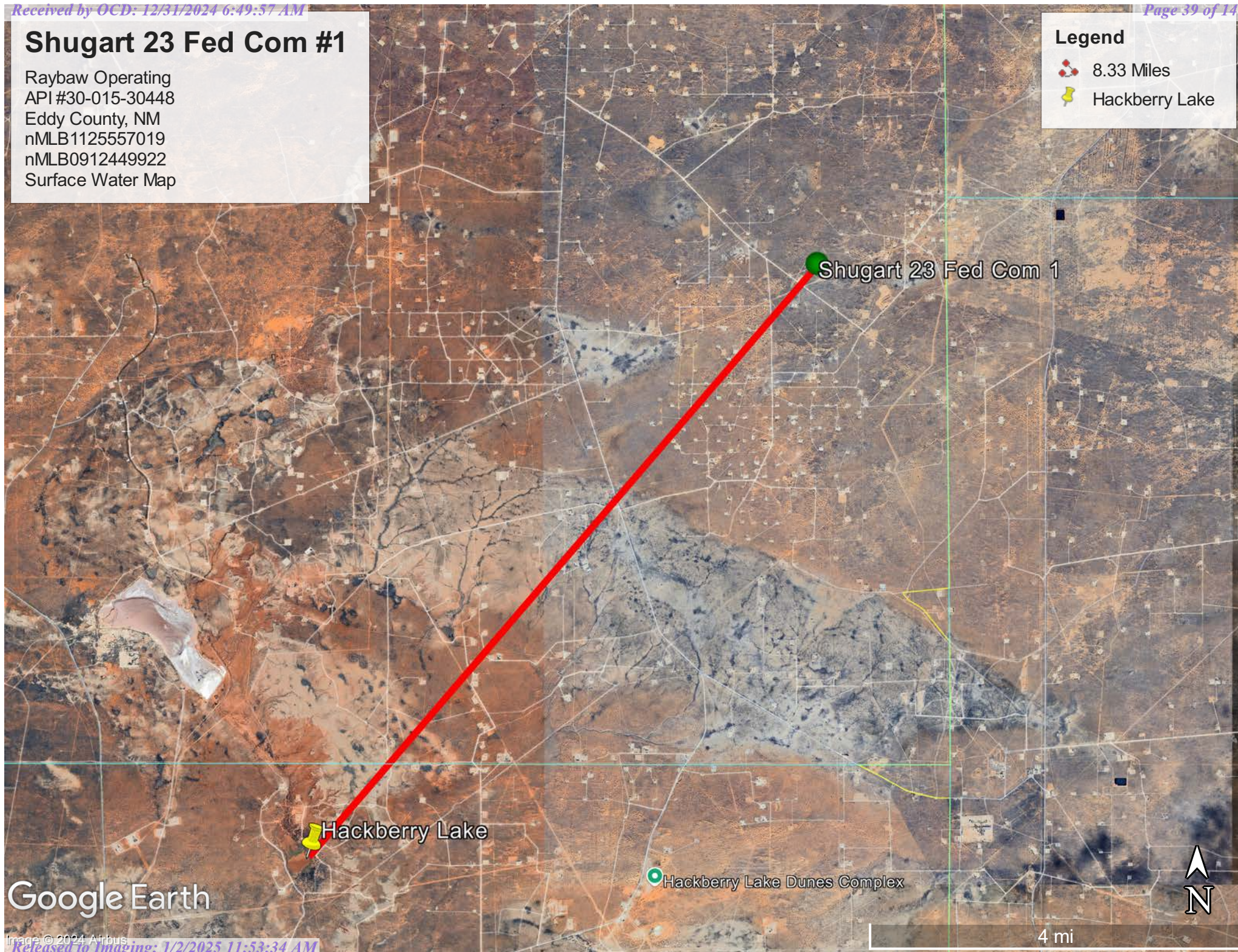


# Shugart 23 Fed Com #1

Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Surface Water Map

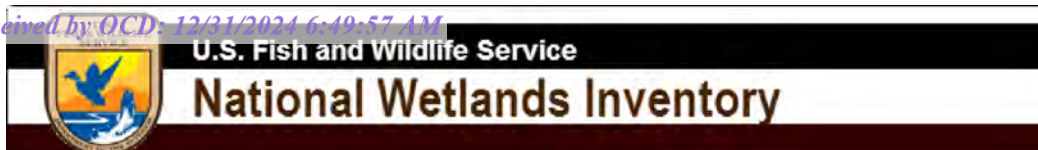
## Legend

- 8.33 Miles
- Hackberry Lake

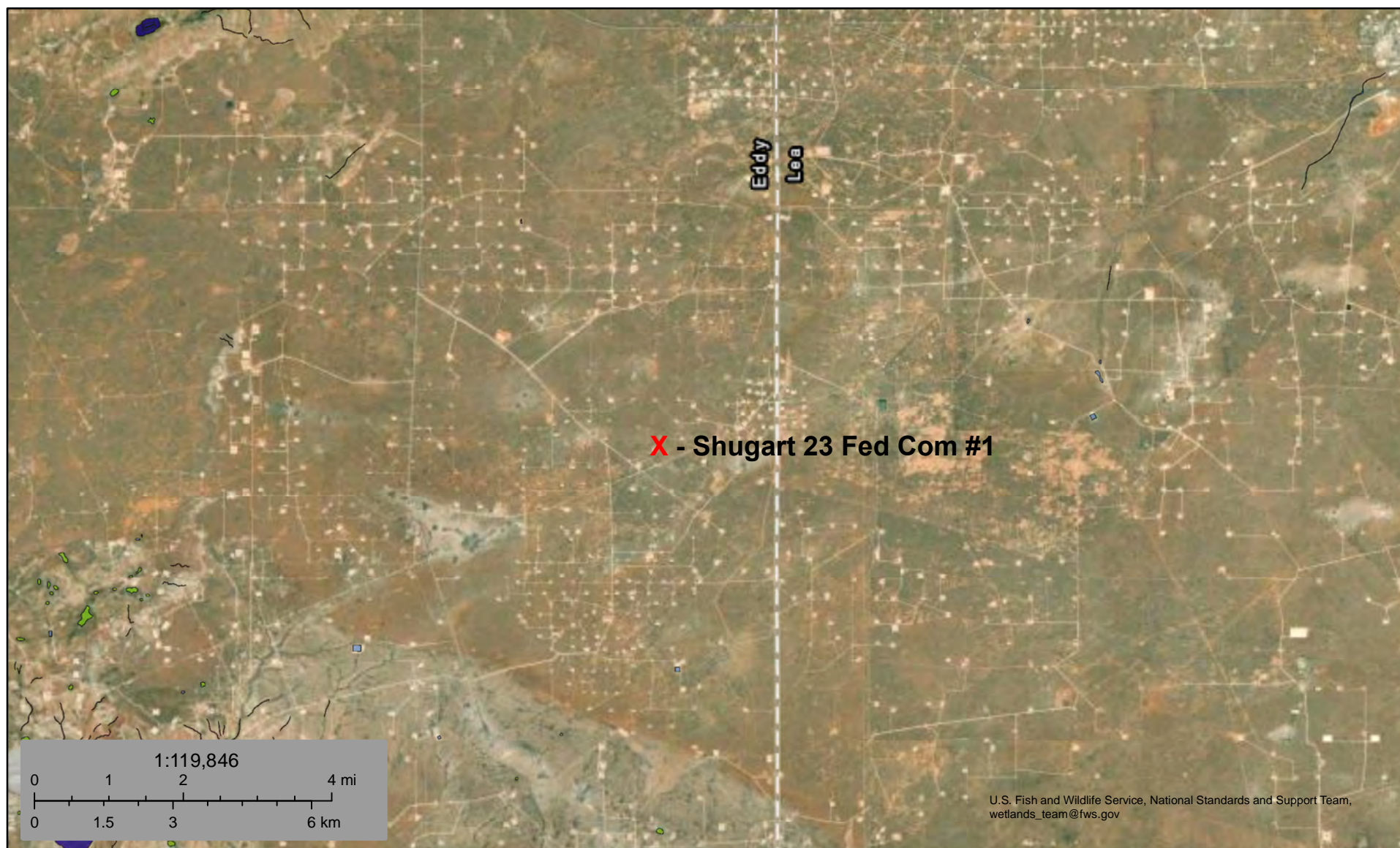


Google Earth





## Wetlands Map



November 26, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# National Flood Hazard Layer FIRMette



103°50'35"W 32°44'3"N



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

1:6,000























103°49'58"W 32°43'33"N

Released to Imaging: 1/2/2025 11:33:34 AM

Basemap Imagery Source: USGS National Map 2023

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/26/2024 at 7:31 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



## ***Appendix B***

Soil Survey

Soil Map

Geologic Unit Map



Map Unit Description: Berino-Pajarito complex, 0 to 3 percent slopes, eroded---Eddy Area,  
New Mexico

---

## Eddy Area, New Mexico

### BP—Berino-Pajarito complex, 0 to 3 percent slopes, eroded

#### Map Unit Setting

*National map unit symbol:* 1w45

*Elevation:* 2,450 to 4,200 feet

*Mean annual precipitation:* 5 to 15 inches

*Mean annual air temperature:* 57 to 70 degrees F

*Frost-free period:* 190 to 250 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Berino and similar soils:* 46 percent

*Pajarito and similar soils:* 45 percent

*Minor components:* 9 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Berino

##### Setting

*Landform:* Plains, fan piedmonts

*Landform position (three-dimensional):* Riser

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Mixed alluvium and/or eolian sands

##### Typical profile

*H1 - 0 to 17 inches:* fine sand

*H2 - 17 to 50 inches:* sandy loam

*H3 - 50 to 60 inches:* loamy sand

##### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 40 percent

*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 1.0

*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4e



Map Unit Description: Berino-Pajarito complex, 0 to 3 percent slopes, eroded---Eddy Area,  
New Mexico

---

*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: B*  
*Ecological site: R070BD003NM - Loamy Sand*  
*Hydric soil rating: No*

## Description of Pajarito

### Setting

*Landform: Plains, interdunes, dunes*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex, linear*  
*Across-slope shape: Linear, convex*  
*Parent material: Mixed alluvium and/or eolian sands*

### Typical profile

*H1 - 0 to 9 inches: loamy fine sand*  
*H2 - 9 to 36 inches: fine sandy loam*  
*H3 - 36 to 72 inches: fine sandy loam*

### Properties and qualities

*Slope: 0 to 3 percent*  
*Depth to restrictive feature: More than 80 inches*  
*Drainage class: Well drained*  
*Runoff class: Very low*  
*Capacity of the most limiting layer to transmit water (Ksat): High*  
*(2.00 to 6.00 in/hr)*  
*Depth to water table: More than 80 inches*  
*Frequency of flooding: None*  
*Frequency of ponding: None*  
*Calcium carbonate, maximum content: 15 percent*  
*Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0*  
*mmhos/cm)*  
*Sodium adsorption ratio, maximum: 1.0*  
*Available water supply, 0 to 60 inches: Moderate (about 8.0*  
*inches)*

### Interpretive groups

*Land capability classification (irrigated): 2e*  
*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: A*  
*Ecological site: R070BD003NM - Loamy Sand*  
*Hydric soil rating: No*

## Minor Components

### Wink

*Percent of map unit: 3 percent*  
*Ecological site: R070BD003NM - Loamy Sand*  
*Hydric soil rating: No*

### Dune land

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*



Map Unit Description: Berino-Pajarito complex, 0 to 3 percent slopes, eroded---Eddy Area,  
New Mexico

---

**Kermi**

*Percent of map unit:* 3 percent

*Ecological site:* R070BD005NM - Deep Sand

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 20, Sep 3, 2024





# Soil Map—Eddy Area, New Mexico



**Natural Resources**  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

11/26/2024  
Page 1 of 3



## Soil Map—Eddy Area, New Mexico


## MAP LEGEND

## Area of Interest (AOI)

 Area of Interest (AOI)

## Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

## Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

## Water Features



Streams and Canals

## Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

## Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 20, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Map Unit Legend



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BP	Berino-Pajarito complex, 0 to 3 percent slopes, eroded	2.5	100.0%
Totals for Area of Interest		2.5	100.0%



# Shugart 23 Fed Com #1

Raybaw Operating  
API #30-015-30448  
Eddy County, NM  
nMLB1125557019  
nMLB0912449922  
Geologic Unit Map

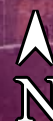
## Legend

-  Eolian and piedmont deposits
-  Piedmont alluvial deposits

Shugart 23 Fed Com 1

Google Earth

3 mi



## ***Appendix C***

Initial C-141 Forms

NMOCD Correspondence



District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S St Francis Dr., Santa Fe, NM 87505

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

APR 27 2009

Form C-141  
Revised March 17, 1999

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

NMLB09124 49922

## Release Notification and Corrective Action

30-05-30448

## OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy	6137	Contact <input type="checkbox"/> Roger Hernandez
Address P. O. Box 250 Artesia, NM 88211		Telephone No. <input type="checkbox"/> 575-748-5238
Facility Name Shugart 23 Fed Com #1		Facility Type <input type="checkbox"/> Oil Well

Surface Owner	Mineral Owner	Lease No. <input type="checkbox"/>
---------------	---------------	------------------------------------

## LOCATION OF RELEASE

Unit Letter	Section 23	Township 18S	Range 31E	Feet from the 1650	North/South Line South	Feet from the 1980	East/West Line East	County Eddy County, NM
-------------	---------------	-----------------	--------------	-----------------------	---------------------------	-----------------------	------------------------	---------------------------

## NATURE OF RELEASE

Type of Release Oil	Volume of Release 40 bbls	Volume Recovered <input type="checkbox"/> 11 bbls
Source of Release Hole in bottom of oil tank.	Date and Hour of Occurrence April 23, 2009 (? Hour)	Date and Hour of Discovery April 23, 2009 12:15 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES. To Whom? Sherry Bonham – Artesia OCD ; Doug Hogan – BLM (Carlsbad)	
By Whom? <input type="checkbox"/> David Sherrell	Date and Hour <input type="checkbox"/> April 23, 2009 3:10 PM (OCD) 3:21 PM BLM)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES. Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.\*

N/A

Describe Cause of Problem and Remedial Action Taken \*

Discovered hole in bottom of tank caused by internal corrosion. Will air out area, rake, and fertilize.

Describe Area Affected and Cleanup Action Taken \*

70'x20' air out area, rake, and fertilize Will repeat if necessary

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

Signature: <i>Roger Hernandez by G. J.</i>	OIL CONSERVATION DIVISION	
Printed Name: Roger Hernandez	Approved by: District Supervisor <i>Mike Brannon</i>	
Title: Production Foreman	Approval Date: MAY 04 2009	Expiration Date
Date: April 24, 2009 Phone: 575-748-5238	Conditions of Approval: <i>SEE ATTACHMENT</i>	Attached <input checked="" type="checkbox"/>

\* Attach Additional Sheets If Necessary

2RP-302

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

30-015-30448

## Release Notification and Corrective Action

NMLD1125557019

6137

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Devon Energy Production Co LP	Contact: Merle Lewis
Address: PO BOX 250, Artesia, NM 88211	Telephone No.: 575-748-0184 or 575-748-6304
Facility Name: Shugart 23 Fed Com #1	Facility Type: Oil well

Surface Owner: State	Mineral Owner: BLM	Lease No.: LC - 065680
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## LOCATION OF RELEASE

Unit Letter J	Section 23	Township 18S	Range 31E	Feet from the 1650	North/South Line S	Feet from the 1980	East/West Line E	County Eddy
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Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

## NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 70 bbls	Volume Recovered: 31 bbls
Source of Release: Hole in oil tank	Date and Hour of Occurrence: 9/4/2011 (? Hour)	Date and Hour of Discovery: 9/4/2011, 12:25 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Evans / BLM OCD - 9/6/11 10:25 AM	
By Whom? Merle Lewis, Asst. Foreman	Date and Hour: 9/4/11, 12:50 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

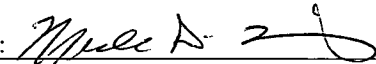
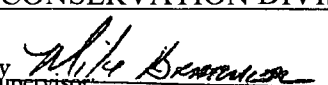
Describe Cause of Problem and Remedial Action Taken.\*

Hole in oil tank. Immediately, a vacuum truck was used to pick up the spill. 31 bbls were recovered out of 70 bbls.

Describe Area Affected and Cleanup Action Taken.\*

60' x 20' in containment area. Our plan includes moving the oil tanks and rebuilding the battery at another part of the location and soil remediation will be completed in the spill area.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Merle Lewis	Signed By  Approved by District Supervisor:	
Title: Assistant Production Foreman	Approval Date: SEP 12 2011	Expiration Date:
E-mail Address: Merle.Lewis@dvn.com	Conditions of Approval: Remediation per OCD Rules & Guidelines. <b>SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:</b> 10/12/2011	Attached <input type="checkbox"/>
Date: 9/6/2011 Phone: 575-748-0184	2RP-896	

\* Attach Additional Sheets If Necessary



**From:** Patterson, Heather, EMNRD  
**To:** [Fulks, Brett](#)  
**Cc:** [Bratcher, Mike, EMNRD](#)  
**Subject:** Shugart 23 Fed Com 1/TNT 6 Fed 1  
**Date:** Wednesday, July 15, 2015 7:10:00 AM

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Mr. Fulks,

I have just reviewed and denied two older closure reports for Devon that I wanted to inform you about. These were releases that were bio remediated in 2012 by Enviroclean. It looks like the work was done properly, but they lack adequate delineation, and no follow up confirmation samples were reported to the OCD. In order to close these out, the OCD will require the sites be resampled. Depending on what those samples return, more work may be required. You can find the reports on OCD online imaging (<http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx>).

Here are the details:

TNT 6 Federal #1 \* 30-015-31712 \* Date of release: 2/2/2011 \* 10bbl/oil, 13bbl/produced water \*  
OCD tracking number: 2RP-614

Shugart 23 Federal Com #1 \* 30-015-30448 \* Date of release: 9/4/2011 \* 70bbl/oil \* OCD tracking  
number: 2RP-896

If you have any questions or concerns please contact me,

Heather Patterson  
Environmental Specialist  
NMOCD District II  
Office (575)748-1283 ext.101  
Cell (575)703-0228



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**RE: [EXTERNAL] Re: The Oil Conservation Division (OCD) has rejected the application, Application ID: 414814**

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**From** Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>

**Date** Mon 12/30/2024 9:42 AM

**To** Tom bynum <tombynum@saptec-eco.com>

**Cc** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nancy Winn <nwinn@sbcglobal.net>; Irma Rodriguez <Irma@oaknrg.com>; Tom Campbell <tom@oaknrg.com>; Sid Campbell <sid@oaknrg.com>; Simon Abela <s.abela@saptec-eco.com>; Steve Robinson <Steve@oaknrg.com>

Good Morning Tom,

Yes, in the report, refer to no documentation found regarding approval of the ex situ remediation. As a result, sampling is being conducted to demonstrate the current status of impacted area. With the added language and the additional sampling, please submit the revised report via the OCD permitting portal.

Thanks,  
Ashley

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

**Effective 12/1/2024:** OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under "2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS".

The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

---

**From:** Tom bynum <tombynum@saptec-eco.com>

**Sent:** Saturday, December 28, 2024 8:13 AM

**To:** Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>

**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nancy Winn <nwinn@sbcglobal.net>; Irma Rodriguez <Irma@oaknrg.com>; Tom Campbell <tom@oaknrg.com>; Sid Campbell <sid@oaknrg.com>; Simon Abela <s.abela@saptec-eco.com>; Steve Robinson <Steve@oaknrg.com>

**Subject:** [EXTERNAL] Re: The Oil Conservation Division (OCD) has rejected the application, Application ID: 414814

**CAUTION:** This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning Ashley,  
Regarding the rejected sampling/remediation plan mentioned below:



We do not have documentation showing approval of any treatment for either incident (nMLB0912449922 & nMLB112555719). If phone conversations took place in 2012 and/or in 2020, follow up emails to those could not be found. We can adjust the report to include statements about the methods not being approved. Is that all you would need for this bullet point? The only documented correspondence we have found for either incident is included in Appendix C of the report.

I have adjusted the proposed sampling map to include samples from the ex-situ treatment cell area and have added language in the report reflecting this adjustment.

Are these the correct steps taken to gain approval of our sampling/work plan? Please advise.

Many thanks,

*Tom Bynum*

Sapec-Eco, LLC  
(580) 748-1613



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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>

**Sent:** Friday, December 27, 2024 10:14 AM

**To:** Michael Lee <[michael@raybawoperating.com](mailto:michael@raybawoperating.com)>

**Subject:** The Oil Conservation Division (OCD) has rejected the application, Application ID: 414814

To whom it may concern (c/o Michael Lee for RAYBAW Operating, LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nMLB1125557019, for the following reasons:

- **Remediation plan rejected**
- **Incident documents do not include approval of approval for MicroBlaze application and/or ex situ treatment cell. If documentation of approval exists, provide documentation in subsequent reports.**
- **Additional sampling required within and around the ex situ treatment cell. A minimum of the top 4 feet must be sampled to ensure that the constituents of concern were not flushed down into the soil.**
- **Submit a report via the OCD permitting portal by January 31, 2025.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 414814.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,

Ashley Maxwell

Projects Environmental Specialist - A

505-635-5000

[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505



## ***Appendix D***

Photographic Documentation







## ***Appendix E***

Laboratory Reports





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

October 18, 2011

LARRY DUNN

ENVIROCLEAN

P. O. BOX 721090

OKLAHOMA CITY, OK 73172

RE: SHUGART 23 FED COM 1

Enclosed are the results of analyses for samples received by the laboratory on 10/11/11 17:26.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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,

A handwritten signature in black ink, reading "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" being more prominent.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENVIROCLEAN  
LARRY DUNN  
P. O. BOX 721090  
OKLAHOMA CITY OK, 73172  
Fax To: (405) 373-4549

Received: 10/11/2011  
Reported: 10/18/2011  
Project Name: SHUGART 23 FED COM 1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/11/2011  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: 001 (H102195-01)**

BTX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>17.4</b>	0.500	10/13/2011	ND	2.06	103	2.00	3.04	
<b>Toluene*</b>	<b>207</b>	0.500	10/13/2011	ND	2.08	104	2.00	1.14	
<b>Ethylbenzene*</b>	<b>130</b>	0.500	10/13/2011	ND	2.06	103	2.00	2.46	
<b>Total Xylenes*</b>	<b>299</b>	1.50	10/13/2011	ND	6.25	104	6.00	1.08	

Surrogate: 4-Bromofluorobenzene (PIL) 184 % 64.4-134

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>2880</b>	100	10/13/2011	ND	159	79.5	200	13.5	
<b>DRO &gt;C10-C28</b>	<b>88800</b>	200	10/14/2011	ND	162	81.1	200	11.6	
<b>EXT DRO &gt;C28-C35</b>	<b>2910</b>	100	10/13/2011						

Surrogate: 1-Chlorooctane 113 % 55.5-154

Surrogate: 1-Chlorooctadecane 98.2 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENVIROCLEAN  
LARRY DUNN  
P. O. BOX 721090  
OKLAHOMA CITY OK, 73172  
Fax To: (405) 373-4549

Received: 10/11/2011  
Reported: 10/18/2011  
Project Name: SHUGART 23 FED COM 1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/11/2011  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: 001A (H102195-02)**

BTX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.746</b>	0.050	10/13/2011	ND	2.06	103	2.00	3.04	
<b>Toluene*</b>	<b>5.23</b>	0.050	10/13/2011	ND	2.08	104	2.00	1.14	
<b>Ethylbenzene*</b>	<b>2.26</b>	0.050	10/13/2011	ND	2.06	103	2.00	2.46	
<b>Total Xylenes*</b>	<b>4.60</b>	0.150	10/13/2011	ND	6.25	104	6.00	1.08	

Surrogate: 4-Bromofluorobenzene (PIL) 158 % 64.4-134

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	10/13/2011	ND	159	79.5	200	13.5	
<b>DRO &gt;C10-C28</b>	<b>4210</b>	100	10/13/2011	ND	162	81.1	200	11.6	
EXT DRO >C28-C35	<100	100	10/13/2011						

Surrogate: 1-Chlorooctane 138 % 55.5-154

Surrogate: 1-Chlorooctadecane 144 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENVIROCLEAN  
LARRY DUNN  
P. O. BOX 721090  
OKLAHOMA CITY OK, 73172  
Fax To: (405) 373-4549

Received: 10/11/2011  
Reported: 10/18/2011  
Project Name: SHUGART 23 FED COM 1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/11/2011  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: 001B (H102195-03)**

BTEX 8021B			mg/kg		Analyzed By: AP			S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.208</b>	0.050	10/14/2011	ND	2.08	104	2.00	0.829	
<b>Toluene*</b>	<b>5.20</b>	0.050	10/14/2011	ND	2.07	103	2.00	0.173	
<b>Ethylbenzene*</b>	<b>3.65</b>	0.050	10/14/2011	ND	2.05	102	2.00	0.0754	
<b>Total Xylenes*</b>	<b>9.36</b>	0.150	10/14/2011	ND	6.20	103	6.00	1.33	

Surrogate: 4-Bromofluorobenzene (PIL) 157 % 64.4-134

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	10/13/2011	ND	159	79.5	200	13.5	
<b>DRO &gt;C10-C28</b>	<b>4100</b>	100	10/13/2011	ND	162	81.1	200	11.6	
EXT DRO >C28-C35	<100	100	10/13/2011						

Surrogate: 1-Chlorooctane 138 % 55.5-154

Surrogate: 1-Chlorooctadecane 145 % 57.6-158

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENVIROCLEAN  
LARRY DUNN  
P. O. BOX 721090  
OKLAHOMA CITY OK, 73172  
Fax To: (405) 373-4549

Received: 10/11/2011  
Reported: 10/18/2011  
Project Name: SHUGART 23 FED COM 1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/11/2011  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: 002 (H102195-04)**

BTEX 8021B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
<b>Benzene*</b>	<b>0.110</b>	0.050	10/14/2011	ND	2.08	104	2.00	0.829			
<b>Toluene*</b>	<b>1.58</b>	0.050	10/14/2011	ND	2.07	103	2.00	0.173			
<b>Ethylbenzene*</b>	<b>0.949</b>	0.050	10/14/2011	ND	2.05	102	2.00	0.0754			
<b>Total Xylenes*</b>	<b>6.05</b>	0.150	10/14/2011	ND	6.20	103	6.00	1.33			

Surrogate: 4-Bromofluorobenzene (PIL) 129 % 64.4-134

PH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<100	100	10/13/2011	ND	159	79.5	200	13.5		
DRO >C10-C28	18900	100	10/13/2011	ND	162	81.1	200	11.6		
EXT DRO >C28-C35	350	100	10/13/2011							

Surrogate: 1-Chlorooctane 129 % 55.5-154

Surrogate: 1-Chlorooctadecane 122 % 57.6-158

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENVIROCLEAN  
LARRY DUNN  
P. O. BOX 721090  
OKLAHOMA CITY OK, 73172  
Fax To: (405) 373-4549

Received:	10/11/2011	Sampling Date:	10/11/2011
Reported:	10/18/2011	Sampling Type:	Soil
Project Name:	SHUGART 23 FED COM 1	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: 002A (H102195-05)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	8.85	0.250	10/14/2011	ND	2.08	104	2.00	0.829	
Toluene*	51.7	0.250	10/14/2011	ND	2.07	103	2.00	0.173	
Ethylbenzene*	19.5	0.250	10/14/2011	ND	2.05	102	2.00	0.0754	
Total Xylenes*	194	0.750	10/14/2011	ND	6.20	103	6.00	1.33	

Surrogate: 4-Bromofluorobenzene (PIL) 117 % 64.4-134

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12800	100	10/13/2011	ND	159	79.5	200	13.5	
DRO >C10-C28	54800	100	10/13/2011	ND	162	81.1	200	11.6	
EXT DRO >C28-C35	1330	100	10/13/2011						

Surrogate: 1-Chlorooctane 132 % 55.5-154

Surrogate: 1-Chlorooctadecane 95.1 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

- S-04            The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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

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Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, reading "Celey D. Keene".

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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

Company Name: <u>ENVIRONMENTAL</u>				<b>BILL TO</b>												<b>ANALYSIS REQUEST</b>																									
Project Manager: <u>LARRY DUAN</u>				P.O. #:												<div style="writing-mode: vertical-rl; transform: rotate(180deg);">           BTEX            TOC &amp; Ammonia         </div>																									
Address: <u>P.O. Box 721090</u>				Company:																																					
City: <u>Oklahoma City</u> State: <u>OK</u> Zip: <u>73142</u>				Attn:																																					
Phone #: <u>405 373 4343</u> Fax #: <u>405 373 4549</u>				Address:																																					
Project #: _____ Project Owner: _____				City:																																					
Project Name: <u>SHUGART 23 FED COM 1</u>				State: _____ Zip: _____																																					
Project Location: " " " "				Phone #: _____																																					
Sampler Name: _____				Fax #: _____																																					
FOR LAB USE ONLY																																									
Lab I.D.		Sample I.D.		GIRAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE/COOL		OTHER:		DATE		TIME													
H102198		001		9		1																				12/11/11		8:20P													
01		001R		1		1																																			
02		001B		1		1																																			
03		002		1		1																																			
04		002A		1		1																																			
05																																									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, 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 hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>[Signature]</u>		Date: <u>12/11/11</u>		Received By: <u>[Signature]</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Date:		Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One)		Time: <u>3:24P</u>		Time:		REMARKS: <u>Samples just taken &amp; brought to lab</u>			
Sampler - UPS - Bus - Other:		Time:		Time:					
Sample Condition		CHECKED BY: (Initials)							
Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>					

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26





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

July 17, 2020

Chris Jones  
Pima Environmental Services LLC  
1601 N. Turner Ste 500  
Hobbs, NM 88240  
TEL: (575) 631-6977  
FAX

RE: Shuqart 23 Fed Com#1

OrderNo.: 2007413

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 38 sample(s) on 7/9/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S1-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:00:00 AM

Lab ID: 2007413-001

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/11/2020 6:50:06 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 6:50:06 PM
Surr: DNOP	65.4	55.1-146		%Rec	1	7/11/2020 6:50:06 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 12:10:51 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 9:41:49 AM
Toluene	ND	0.048		mg/Kg	1	7/12/2020 9:41:49 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 9:41:49 AM
Xylenes, Total	ND	0.096		mg/Kg	1	7/12/2020 9:41:49 AM
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 9:41:49 AM
Surr: 4-Bromofluorobenzene	94.9	70-130		%Rec	1	7/12/2020 9:41:49 AM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/12/2020 9:41:49 AM
Surr: Toluene-d8	101	70-130		%Rec	1	7/12/2020 9:41:49 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 9:41:49 AM
Surr: BFB	93.4	70-130		%Rec	1	7/12/2020 9:41:49 AM

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

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



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S1-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:05:00 AM

Lab ID: 2007413-002

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/11/2020 7:15:17 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 7:15:17 PM
Surr: DNOP	102	55.1-146		%Rec	1	7/11/2020 7:15:17 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 12:23:15 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 10:18:02 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 10:18:02 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 10:18:02 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/12/2020 10:18:02 AM
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	7/12/2020 10:18:02 AM
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	7/12/2020 10:18:02 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	7/12/2020 10:18:02 AM
Surr: Toluene-d8	103	70-130		%Rec	1	7/12/2020 10:18:02 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 10:18:02 AM
Surr: BFB	93.0	70-130		%Rec	1	7/12/2020 10:18:02 AM

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

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

Page 2 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S1-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:10:00 AM

Lab ID: 2007413-003

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/11/2020 12:19:05 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 12:19:05 PM
Surr: DNOP	80.7	55.1-146		%Rec	1	7/11/2020 12:19:05 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/11/2020 10:20:01 PM
Surr: BFB	79.1	66.6-105		%Rec	1	7/11/2020 10:20:01 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/11/2020 10:20:01 PM
Toluene	ND	0.049		mg/Kg	1	7/11/2020 10:20:01 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/11/2020 10:20:01 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/11/2020 10:20:01 PM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/11/2020 10:20:01 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 12:35:40 PM

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

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

Page 3 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S2-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:15:00 AM

Lab ID: 2007413-004

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/11/2020 1:32:15 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/11/2020 1:32:15 PM
Surr: DNOP	97.7	55.1-146		%Rec	1	7/11/2020 1:32:15 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/11/2020 11:55:24 PM
Surr: BFB	85.9	66.6-105		%Rec	1	7/11/2020 11:55:24 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/11/2020 11:55:24 PM
Toluene	ND	0.050		mg/Kg	1	7/11/2020 11:55:24 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/11/2020 11:55:24 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/11/2020 11:55:24 PM
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	7/11/2020 11:55:24 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 12:48:04 PM

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

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

Page 4 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S2-1"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:20:00 AM

Lab ID: 2007413-005

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/11/2020 1:56:43 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2020 1:56:43 PM
Surr: DNOP	107	55.1-146		%Rec	1	7/11/2020 1:56:43 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 1:07:54 AM
Surr: BFB	80.2	66.6-105		%Rec	1	7/12/2020 1:07:54 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 1:07:54 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 1:07:54 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 1:07:54 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/12/2020 1:07:54 AM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/12/2020 1:07:54 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 1:25:18 PM

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

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



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S2-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:25:00 AM

Lab ID: 2007413-006

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/11/2020 2:21:02 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 2:21:02 PM
Surr: DNOP	77.5	55.1-146		%Rec	1	7/11/2020 2:21:02 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 1:31:30 AM
Surr: BFB	78.6	66.6-105		%Rec	1	7/12/2020 1:31:30 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 1:31:30 AM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 1:31:30 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 1:31:30 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 1:31:30 AM
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/12/2020 1:31:30 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 1:37:42 PM

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

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

Page 6 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S3-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:30:00 AM

Lab ID: 2007413-007

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/11/2020 2:45:31 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 2:45:31 PM
Surr: DNOP	24.0	55.1-146	S	%Rec	1	7/11/2020 2:45:31 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 1:55:01 AM
Surr: BFB	78.6	66.6-105		%Rec	1	7/12/2020 1:55:01 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 1:55:01 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 1:55:01 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 1:55:01 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 1:55:01 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/12/2020 1:55:01 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 1:50:07 PM

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

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

Page 7 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S3-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:35:00 AM

Lab ID: 2007413-008

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/11/2020 3:09:47 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 3:09:47 PM
Surr: DNOP	79.9	55.1-146		%Rec	1	7/11/2020 3:09:47 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 2:18:31 AM
Surr: BFB	79.2	66.6-105		%Rec	1	7/12/2020 2:18:31 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 2:18:31 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 2:18:31 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 2:18:31 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 2:18:31 AM
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/12/2020 2:18:31 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 2:02:31 PM

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

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

Page 8 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S3-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:40:00 AM

Lab ID: 2007413-009

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/11/2020 3:34:14 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 3:34:14 PM
Surr: DNOP	86.4	55.1-146		%Rec	1	7/11/2020 3:34:14 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 2:42:03 AM
Surr: BFB	77.6	66.6-105		%Rec	1	7/12/2020 2:42:03 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 2:42:03 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 2:42:03 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 2:42:03 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 2:42:03 AM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/12/2020 2:42:03 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 5:21:00 PM

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

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

Page 9 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:45:00 AM

Lab ID: 2007413-010

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	14	9.8		mg/Kg	1	7/11/2020 3:58:43 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2020 3:58:43 PM
Surr: DNOP	37.8	55.1-146	S	%Rec	1	7/11/2020 3:58:43 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 3:52:47 AM
Surr: BFB	76.7	66.6-105		%Rec	1	7/12/2020 3:52:47 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 3:52:47 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 3:52:47 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 3:52:47 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/12/2020 3:52:47 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/12/2020 3:52:47 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	1800	61		mg/Kg	20	7/13/2020 6:23:03 PM

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

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

Page 10 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:50:00 AM

Lab ID: 2007413-011

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	420	98		mg/Kg	10	7/11/2020 4:23:15 PM
Motor Oil Range Organics (MRO)	540	490		mg/Kg	10	7/11/2020 4:23:15 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/11/2020 4:23:15 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 4:16:14 AM
Surr: BFB	78.3	66.6-105		%Rec	1	7/12/2020 4:16:14 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 4:16:14 AM
Toluene	ND	0.048		mg/Kg	1	7/12/2020 4:16:14 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 4:16:14 AM
Xylenes, Total	ND	0.096		mg/Kg	1	7/12/2020 4:16:14 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/12/2020 4:16:14 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	1500	60		mg/Kg	20	7/13/2020 7:00:17 PM

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

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

Page 11 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 10:55:00 AM

Lab ID: 2007413-012

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1800	200		mg/Kg	20	7/11/2020 4:47:39 PM
Motor Oil Range Organics (MRO)	2100	1000		mg/Kg	20	7/11/2020 4:47:39 PM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/11/2020 4:47:39 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	9.9		mg/Kg	2	7/12/2020 4:39:50 AM
Surr: BFB	75.9	66.6-105		%Rec	2	7/12/2020 4:39:50 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.050		mg/Kg	2	7/12/2020 4:39:50 AM
Toluene	ND	0.099		mg/Kg	2	7/12/2020 4:39:50 AM
Ethylbenzene	ND	0.099		mg/Kg	2	7/12/2020 4:39:50 AM
Xylenes, Total	ND	0.20		mg/Kg	2	7/12/2020 4:39:50 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	2	7/12/2020 4:39:50 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	950	60		mg/Kg	20	7/13/2020 7:12:41 PM

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

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

Page 12 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S5-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:00:00 AM

Lab ID: 2007413-013

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1000	190		mg/Kg	20	7/11/2020 5:12:07 PM
Motor Oil Range Organics (MRO)	1500	970		mg/Kg	20	7/11/2020 5:12:07 PM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/11/2020 5:12:07 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 5:03:27 AM
Surr: BFB	76.2	66.6-105		%Rec	1	7/12/2020 5:03:27 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 5:03:27 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 5:03:27 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 5:03:27 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 5:03:27 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/12/2020 5:03:27 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	950	60		mg/Kg	20	7/13/2020 7:25:05 PM

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

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

Page 13 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S5-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:05:00 AM

Lab ID: 2007413-014

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1100	190		mg/Kg	20	7/13/2020 9:27:13 AM
Motor Oil Range Organics (MRO)	1600	930		mg/Kg	20	7/13/2020 9:27:13 AM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/13/2020 9:27:13 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 5:27:35 AM
Surr: BFB	76.6	66.6-105		%Rec	1	7/12/2020 5:27:35 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 5:27:35 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 5:27:35 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 5:27:35 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 5:27:35 AM
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/12/2020 5:27:35 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	1300	60		mg/Kg	20	7/13/2020 7:37:30 PM

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

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

Page 14 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S5-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:10:00 AM

Lab ID: 2007413-015

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	480	94		mg/Kg	10	7/13/2020 9:51:21 AM
Motor Oil Range Organics (MRO)	810	470		mg/Kg	10	7/13/2020 9:51:21 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/13/2020 9:51:21 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 5:51:22 AM
Surr: BFB	76.4	66.6-105		%Rec	1	7/12/2020 5:51:22 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 5:51:22 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 5:51:22 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 5:51:22 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 5:51:22 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/12/2020 5:51:22 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	690	59		mg/Kg	20	7/13/2020 7:49:55 PM

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

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

Page 15 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S6-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:15:00 AM

Lab ID: 2007413-016

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	550	93		mg/Kg	10	7/11/2020 6:50:01 PM
Motor Oil Range Organics (MRO)	590	470		mg/Kg	10	7/11/2020 6:50:01 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/11/2020 6:50:01 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 6:14:51 AM
Surr: BFB	76.8	66.6-105		%Rec	1	7/12/2020 6:14:51 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 6:14:51 AM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 6:14:51 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 6:14:51 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 6:14:51 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/12/2020 6:14:51 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	200	60		mg/Kg	20	7/13/2020 8:02:19 PM

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

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

Page 16 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S6-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:20:00 AM

Lab ID: 2007413-017

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	910	180		mg/Kg	20	7/13/2020 10:15:31 AM
Motor Oil Range Organics (MRO)	1700	900		mg/Kg	20	7/13/2020 10:15:31 AM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/13/2020 10:15:31 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:02:07 AM
Surr: BFB	84.4	66.6-105		%Rec	1	7/12/2020 7:02:07 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:02:07 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:02:07 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:02:07 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 7:02:07 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/12/2020 7:02:07 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	110	60		mg/Kg	20	7/13/2020 8:14:44 PM

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

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

Page 17 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S6-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:25:00 AM

Lab ID: 2007413-018

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	880	93		mg/Kg	10	7/13/2020 10:39:50 AM
Motor Oil Range Organics (MRO)	1400	460		mg/Kg	10	7/13/2020 10:39:50 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/13/2020 10:39:50 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:25:39 AM
Surr: BFB	73.9	66.6-105		%Rec	1	7/12/2020 7:25:39 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:25:39 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:25:39 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:25:39 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 7:25:39 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/12/2020 7:25:39 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	110	60		mg/Kg	20	7/13/2020 8:51:59 PM

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

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

Page 18 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S7-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:30:00 AM

Lab ID: 2007413-019

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/11/2020 8:03:20 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 8:03:20 PM
Surr: DNOP	28.6	55.1-146	S	%Rec	1	7/11/2020 8:03:20 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:49:06 AM
Surr: BFB	75.4	66.6-105		%Rec	1	7/12/2020 7:49:06 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:49:06 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:49:06 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:49:06 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 7:49:06 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/12/2020 7:49:06 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	59		mg/Kg	20	7/13/2020 9:04:23 PM

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

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

Page 19 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S7-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:35:00 AM

Lab ID: 2007413-020

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/11/2020 8:27:51 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 8:27:51 PM
Surr: DNOP	52.2	55.1-146	S	%Rec	1	7/11/2020 8:27:51 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 8:12:31 AM
Surr: BFB	75.5	66.6-105		%Rec	1	7/12/2020 8:12:31 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 8:12:31 AM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 8:12:31 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 8:12:31 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 8:12:31 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/12/2020 8:12:31 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 9:16:48 PM

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

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

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S7-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:40:00 AM

Lab ID: 2007413-021

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/11/2020 8:52:08 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 8:52:08 PM
Surr: DNOP	58.0	55.1-146		%Rec	1	7/11/2020 8:52:08 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 8:36:00 AM
Surr: BFB	74.9	66.6-105		%Rec	1	7/12/2020 8:36:00 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 8:36:00 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 8:36:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 8:36:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/12/2020 8:36:00 AM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/12/2020 8:36:00 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 9:29:12 PM

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

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

Page 21 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S8-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:45:00 AM

Lab ID: 2007413-022

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	19	9.7		mg/Kg	1	7/11/2020 9:16:40 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 9:16:40 PM
Surr: DNOP	65.2	55.1-146		%Rec	1	7/11/2020 9:16:40 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 8:59:47 AM
Surr: BFB	74.1	66.6-105		%Rec	1	7/12/2020 8:59:47 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 8:59:47 AM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 8:59:47 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 8:59:47 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 8:59:47 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/12/2020 8:59:47 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	59		mg/Kg	20	7/13/2020 9:41:37 PM

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

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

Page 22 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S8-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:50:00 AM

Lab ID: 2007413-023

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	88	9.6		mg/Kg	1	7/11/2020 10:29:39 PM
Motor Oil Range Organics (MRO)	130	48		mg/Kg	1	7/11/2020 10:29:39 PM
Surr: DNOP	104	55.1-146		%Rec	1	7/11/2020 10:29:39 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 9:54:01 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:01:02 AM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:01:02 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:01:02 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 7:01:02 AM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	7/12/2020 7:01:02 AM
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	1	7/12/2020 7:01:02 AM
Surr: Dibromofluoromethane	98.3	70-130		%Rec	1	7/12/2020 7:01:02 AM
Surr: Toluene-d8	99.2	70-130		%Rec	1	7/12/2020 7:01:02 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:01:02 AM
Surr: BFB	105	70-130		%Rec	1	7/12/2020 7:01:02 AM

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

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

Page 23 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S8-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 11:55:00 AM

Lab ID: 2007413-024

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	380	100		mg/Kg	10	7/13/2020 11:28:44 AM
Motor Oil Range Organics (MRO)	760	500		mg/Kg	10	7/13/2020 11:28:44 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/13/2020 11:28:44 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 10:06:25 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 1:03:20 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 1:03:20 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 1:03:20 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/12/2020 1:03:20 PM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%Rec	1	7/12/2020 1:03:20 PM
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	7/12/2020 1:03:20 PM
Surr: Dibromofluoromethane	95.4	70-130		%Rec	1	7/12/2020 1:03:20 PM
Surr: Toluene-d8	98.1	70-130		%Rec	1	7/12/2020 1:03:20 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 1:03:20 PM
Surr: BFB	103	70-130		%Rec	1	7/12/2020 1:03:20 PM

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

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

Page 24 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S9-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:00:00 PM

Lab ID: 2007413-025

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1700	190		mg/Kg	20	7/12/2020 12:31:21 AM
Motor Oil Range Organics (MRO)	2100	970		mg/Kg	20	7/12/2020 12:31:21 AM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/12/2020 12:31:21 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	1000	60		mg/Kg	20	7/13/2020 10:18:49 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 2:33:58 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 2:33:58 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 2:33:58 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 2:33:58 PM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%Rec	1	7/12/2020 2:33:58 PM
Surr: 4-Bromofluorobenzene	88.9	70-130		%Rec	1	7/12/2020 2:33:58 PM
Surr: Dibromofluoromethane	92.5	70-130		%Rec	1	7/12/2020 2:33:58 PM
Surr: Toluene-d8	101	70-130		%Rec	1	7/12/2020 2:33:58 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 2:33:58 PM
Surr: BFB	105	70-130		%Rec	1	7/12/2020 2:33:58 PM

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

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

Page 25 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S9-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:05:00 PM

Lab ID: 2007413-026

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	2300	200		mg/Kg	20	7/12/2020 12:55:41 AM
Motor Oil Range Organics (MRO)	2600	1000		mg/Kg	20	7/12/2020 12:55:41 AM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/12/2020 12:55:41 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	870	60		mg/Kg	20	7/13/2020 10:31:14 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 3:04:19 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 3:04:19 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 3:04:19 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 3:04:19 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%Rec	1	7/12/2020 3:04:19 PM
Surr: 4-Bromofluorobenzene	84.6	70-130		%Rec	1	7/12/2020 3:04:19 PM
Surr: Dibromofluoromethane	97.5	70-130		%Rec	1	7/12/2020 3:04:19 PM
Surr: Toluene-d8	102	70-130		%Rec	1	7/12/2020 3:04:19 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 3:04:19 PM
Surr: BFB	108	70-130		%Rec	1	7/12/2020 3:04:19 PM

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

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

Page 26 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S10-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:10:00 PM

Lab ID: 2007413-027

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/12/2020 1:20:05 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/12/2020 1:20:05 AM
Surr: DNOP	108	55.1-146		%Rec	1	7/12/2020 1:20:05 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	7/13/2020 10:43:39 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 3:34:41 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 3:34:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 3:34:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 3:34:41 PM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%Rec	1	7/12/2020 3:34:41 PM
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	7/12/2020 3:34:41 PM
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	7/12/2020 3:34:41 PM
Surr: Toluene-d8	104	70-130		%Rec	1	7/12/2020 3:34:41 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 3:34:41 PM
Surr: BFB	106	70-130		%Rec	1	7/12/2020 3:34:41 PM

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

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

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S10-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:15:00 PM

Lab ID: 2007413-028

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	390	97		mg/Kg	10	7/13/2020 11:53:15 AM
Motor Oil Range Organics (MRO)	830	490		mg/Kg	10	7/13/2020 11:53:15 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/13/2020 11:53:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Chloride	ND	59		mg/Kg	20	7/13/2020 11:20:52 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 4:05:17 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 4:05:17 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 4:05:17 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 4:05:17 PM
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%Rec	1	7/12/2020 4:05:17 PM
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	7/12/2020 4:05:17 PM
Surr: Dibromofluoromethane	100	70-130		%Rec	1	7/12/2020 4:05:17 PM
Surr: Toluene-d8	98.2	70-130		%Rec	1	7/12/2020 4:05:17 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 4:05:17 PM
Surr: BFB	103	70-130		%Rec	1	7/12/2020 4:05:17 PM

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

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

Page 28 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S10-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:20:00 PM

Lab ID: 2007413-029

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	150	47		mg/Kg	5	7/13/2020 11:04:15 AM
Motor Oil Range Organics (MRO)	350	240		mg/Kg	5	7/13/2020 11:04:15 AM
Surr: DNOP	139	55.1-146		%Rec	5	7/13/2020 11:04:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	76	60		mg/Kg	20	7/14/2020 4:18:26 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 4:35:46 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 4:35:46 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 4:35:46 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 4:35:46 PM
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%Rec	1	7/12/2020 4:35:46 PM
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	7/12/2020 4:35:46 PM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	7/12/2020 4:35:46 PM
Surr: Toluene-d8	97.8	70-130		%Rec	1	7/12/2020 4:35:46 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 4:35:46 PM
Surr: BFB	107	70-130		%Rec	1	7/12/2020 4:35:46 PM

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

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

Page 29 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S11-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:25:00 PM

Lab ID: 2007413-030

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/12/2020 2:33:22 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/12/2020 2:33:22 AM
Surr: DNOP	41.6	55.1-146	S	%Rec	1	7/12/2020 2:33:22 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 5:20:11 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 5:06:11 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 5:06:11 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 5:06:11 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 5:06:11 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	7/12/2020 5:06:11 PM
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	7/12/2020 5:06:11 PM
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	7/12/2020 5:06:11 PM
Surr: Toluene-d8	100	70-130		%Rec	1	7/12/2020 5:06:11 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 5:06:11 PM
Surr: BFB	103	70-130		%Rec	1	7/12/2020 5:06:11 PM

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

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

Page 30 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S11-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:30:00 PM

Lab ID: 2007413-031

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/12/2020 2:57:50 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/12/2020 2:57:50 AM
Surr: DNOP	53.9	55.1-146	S	%Rec	1	7/12/2020 2:57:50 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 5:32:31 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 5:36:43 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 5:36:43 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 5:36:43 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 5:36:43 PM
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	7/12/2020 5:36:43 PM
Surr: 4-Bromofluorobenzene	91.4	70-130		%Rec	1	7/12/2020 5:36:43 PM
Surr: Dibromofluoromethane	95.4	70-130		%Rec	1	7/12/2020 5:36:43 PM
Surr: Toluene-d8	107	70-130		%Rec	1	7/12/2020 5:36:43 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 5:36:43 PM
Surr: BFB	107	70-130		%Rec	1	7/12/2020 5:36:43 PM

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

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

Page 31 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S11-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:35:00 PM

Lab ID: 2007413-032

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	7/12/2020 3:22:05 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/12/2020 3:22:05 AM
Surr: DNOP	66.6	55.1-146		%Rec	1	7/12/2020 3:22:05 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 5:44:52 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 6:07:12 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 6:07:12 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 6:07:12 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 6:07:12 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	7/12/2020 6:07:12 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	7/12/2020 6:07:12 PM
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	7/12/2020 6:07:12 PM
Surr: Toluene-d8	100	70-130		%Rec	1	7/12/2020 6:07:12 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 6:07:12 PM
Surr: BFB	106	70-130		%Rec	1	7/12/2020 6:07:12 PM

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

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

Page 32 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S12-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:40:00 PM

Lab ID: 2007413-033

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/12/2020 3:46:34 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/12/2020 3:46:34 AM
Surr: DNOP	35.9	55.1-146	S	%Rec	1	7/12/2020 3:46:34 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 5:57:11 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 6:37:35 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 6:37:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 6:37:35 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 6:37:35 PM
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	7/12/2020 6:37:35 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%Rec	1	7/12/2020 6:37:35 PM
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	7/12/2020 6:37:35 PM
Surr: Toluene-d8	100	70-130		%Rec	1	7/12/2020 6:37:35 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 6:37:35 PM
Surr: BFB	108	70-130		%Rec	1	7/12/2020 6:37:35 PM

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

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

Page 33 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S12-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:45:00 PM

Lab ID: 2007413-034

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	7/12/2020 4:10:45 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/12/2020 4:10:45 AM
Surr: DNOP	99.9	55.1-146		%Rec	1	7/12/2020 4:10:45 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 6:09:32 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:07:45 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:07:45 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:07:45 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 7:07:45 PM
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	7/12/2020 7:07:45 PM
Surr: 4-Bromofluorobenzene	89.8	70-130		%Rec	1	7/12/2020 7:07:45 PM
Surr: Dibromofluoromethane	96.8	70-130		%Rec	1	7/12/2020 7:07:45 PM
Surr: Toluene-d8	100	70-130		%Rec	1	7/12/2020 7:07:45 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:07:45 PM
Surr: BFB	105	70-130		%Rec	1	7/12/2020 7:07:45 PM

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

**Qualifiers:**

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

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

Page 34 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S12-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:50:00 PM

Lab ID: 2007413-035

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/12/2020 4:35:08 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/12/2020 4:35:08 AM
Surr: DNOP	126	55.1-146		%Rec	1	7/12/2020 4:35:08 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 6:21:54 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 7:37:47 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:37:47 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:37:47 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 7:37:47 PM
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	7/12/2020 7:37:47 PM
Surr: 4-Bromofluorobenzene	93.7	70-130		%Rec	1	7/12/2020 7:37:47 PM
Surr: Dibromofluoromethane	97.9	70-130		%Rec	1	7/12/2020 7:37:47 PM
Surr: Toluene-d8	99.4	70-130		%Rec	1	7/12/2020 7:37:47 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:37:47 PM
Surr: BFB	106	70-130		%Rec	1	7/12/2020 7:37:47 PM

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

**Qualifiers:**

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

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

Page 35 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S13-0-6"

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 12:55:00 PM

Lab ID: 2007413-036

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/12/2020 4:59:19 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/12/2020 4:59:19 AM
Surr: DNOP	41.3	55.1-146	S	%Rec	1	7/12/2020 4:59:19 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 6:34:14 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	7/12/2020 8:07:43 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 8:07:43 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 8:07:43 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 8:07:43 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	7/12/2020 8:07:43 PM
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	7/12/2020 8:07:43 PM
Surr: Dibromofluoromethane	91.7	70-130		%Rec	1	7/12/2020 8:07:43 PM
Surr: Toluene-d8	99.0	70-130		%Rec	1	7/12/2020 8:07:43 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 8:07:43 PM
Surr: BFB	105	70-130		%Rec	1	7/12/2020 8:07:43 PM

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

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

Page 36 of 48

## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S13-1'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 1:00:00 PM

Lab ID: 2007413-037

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/12/2020 5:23:42 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/12/2020 5:23:42 AM
Surr: DNOP	107	55.1-146		%Rec	1	7/12/2020 5:23:42 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 6:46:34 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 8:37:38 PM
Toluene	ND	0.049		mg/Kg	1	7/12/2020 8:37:38 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 8:37:38 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 8:37:38 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%Rec	1	7/12/2020 8:37:38 PM
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	7/12/2020 8:37:38 PM
Surr: Dibromofluoromethane	94.5	70-130		%Rec	1	7/12/2020 8:37:38 PM
Surr: Toluene-d8	96.6	70-130		%Rec	1	7/12/2020 8:37:38 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 8:37:38 PM
Surr: BFB	106	70-130		%Rec	1	7/12/2020 8:37:38 PM

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

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

Page 37 of 48



## Analytical Report

Lab Order 2007413

Date Reported: 7/17/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S13-2'

Project: Shuqart 23 Fed Com#1

Collection Date: 7/8/2020 1:00:00 PM

Lab ID: 2007413-038

Matrix: SOIL

Received Date: 7/9/2020 9:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/12/2020 5:47:53 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/12/2020 5:47:53 AM
Surr: DNOP	66.0	55.1-146		%Rec	1	7/12/2020 5:47:53 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	7/14/2020 7:23:37 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	7/12/2020 9:07:24 PM
Toluene	ND	0.050		mg/Kg	1	7/12/2020 9:07:24 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 9:07:24 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 9:07:24 PM
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%Rec	1	7/12/2020 9:07:24 PM
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	1	7/12/2020 9:07:24 PM
Surr: Dibromofluoromethane	97.6	70-130		%Rec	1	7/12/2020 9:07:24 PM
Surr: Toluene-d8	94.5	70-130		%Rec	1	7/12/2020 9:07:24 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 9:07:24 PM
Surr: BFB	104	70-130		%Rec	1	7/12/2020 9:07:24 PM

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

**Qualifiers:**

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

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

Page 38 of 48

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: MB-53665	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53665	RunNo: 70304								
Prep Date: 7/13/2020	Analysis Date: 7/13/2020	SeqNo: 2443770 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53665	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53665	RunNo: 70304								
Prep Date: 7/13/2020	Analysis Date: 7/13/2020	SeqNo: 2443771 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID: MB-53681	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53681	RunNo: 70304								
Prep Date: 7/13/2020	Analysis Date: 7/13/2020	SeqNo: 2443811 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53681	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53681	RunNo: 70304								
Prep Date: 7/13/2020	Analysis Date: 7/13/2020	SeqNo: 2443812 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: MB-53696	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53696	RunNo: 70327								
Prep Date: 7/14/2020	Analysis Date: 7/14/2020	SeqNo: 2444984 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53696	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53696	RunNo: 70327								
Prep Date: 7/14/2020	Analysis Date: 7/14/2020	SeqNo: 2444986 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	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

Page 39 of 48

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

WO#: 2007413

17-Jul-20

**Client:** Pima Environmental Services LLC**Project:** Shuqart 23 Fed Com#1

Sample ID: <b>MB-53629</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53629</b>	RunNo: <b>70238</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442220</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		121	55.1	146			

Sample ID: <b>LCS-53629</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53629</b>	RunNo: <b>70238</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442221</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	70	130			
Surr: DNOP	4.9		5.000		97.0	55.1	146			

Sample ID: <b>2007413-003AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S1-2'</b>	Batch ID: <b>53630</b>	RunNo: <b>70235</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442323</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.2	46.00	3.565	103	47.4	136			
Surr: DNOP	3.9		4.600		85.2	55.1	146			

Sample ID: <b>2007413-003AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S1-2'</b>	Batch ID: <b>53630</b>	RunNo: <b>70235</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442324</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.3	46.38	3.565	110	47.4	136	6.76	43.4	
Surr: DNOP	6.0		4.638		129	55.1	146	0	0	

Sample ID: <b>2007413-023AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S8-1'</b>	Batch ID: <b>53633</b>	RunNo: <b>70235</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442345</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	140	9.9	49.55	88.18	104	47.4	136			
Surr: DNOP	4.6		4.955		92.4	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#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: 2007413-023AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S8-1'	Batch ID: 53633	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442346 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	9.7	48.31	88.18	80.4	47.4	136	9.38	43.4	
Surr: DNOP	5.4		4.831		113	55.1	146	0	0	

Sample ID: LCS-53583	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53583	RunNo: 70235								
Prep Date: 7/9/2020	Analysis Date: 7/10/2020	SeqNo: 2442380 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.1	55.1	146			

Sample ID: LCS-53630	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53630	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442382 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	125	70	130			
Surr: DNOP	4.7		5.000		94.2	55.1	146			

Sample ID: LCS-53633	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53633	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442383 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	65	10	50.00	0	130	70	130			
Surr: DNOP	3.9		5.000		77.4	55.1	146			

Sample ID: MB-53583	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53583	RunNo: 70235								
Prep Date: 7/9/2020	Analysis Date: 7/10/2020	SeqNo: 2442385 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.7	55.1	146			

Sample ID: MB-53630	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53630	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442386 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								

### Qualifiers:

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

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

Page 41 of 48

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: MB-53630	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53630	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442386	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		94.8	55.1	146			

Sample ID: MB-53633	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53633	RunNo: 70235								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442387	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	9.1		10.00		91.0	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#: 2007413

17-Jul-20

**Client:** Pima Environmental Services LLC**Project:** Shuqart 23 Fed Com#1

Sample ID: <b>2007413-004ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S2-0-6"</b>	Batch ID: <b>53620</b>	RunNo: <b>70267</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>	SeqNo: <b>2442101</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.53	0	80.0	80	120			
Surr: BFB	900		981.4		91.9	66.6	105			

Sample ID: <b>2007413-004amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S2-0-6"</b>	Batch ID: <b>53620</b>	RunNo: <b>70267</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>	SeqNo: <b>2442102</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.70	0	82.3	80	120	3.50	20	
Surr: BFB	870		988.1		87.9	66.6	105	0	0	

Sample ID: <b>LCS-53620</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>53620</b>	RunNo: <b>70267</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442130</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.2	80	120			
Surr: BFB	890		1000		88.9	66.6	105			

Sample ID: <b>mb-53620</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53620</b>	RunNo: <b>70267</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442131</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		81.1	66.6	105			

**Qualifiers:**

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

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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: 2007413-003ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: S1-2'	Batch ID: 53620		RunNo: 70267							
Prep Date: 7/10/2020	Analysis Date: 7/11/2020		SeqNo: 2442138		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9921	0	101	78.5	119			
Toluene	1.0	0.050	0.9921	0	101	75.7	123			
Ethylbenzene	1.0	0.050	0.9921	0	101	74.3	126			
Xylenes, Total	3.1	0.099	2.976	0	103	72.9	130			
Surr: 4-Bromofluorobenzene	1.0		0.9921		105	80	120			

Sample ID: 2007413-003amsd		SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID: S1-2'		Batch ID: 53620		RunNo: 70267						
Prep Date: 7/10/2020		Analysis Date: 7/11/2020		SeqNo: 2442139		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9823	0	103	78.5	119	1.37	20	
Toluene	1.0	0.049	0.9823	0	103	75.7	123	0.785	20	
Ethylbenzene	1.0	0.049	0.9823	0	104	74.3	126	2.04	20	
Xylenes, Total	3.1	0.098	2.947	0	106	72.9	130	1.45	20	
Surr: 4-Bromofluorobenzene	1.0		0.9823		105	80	120	0	0	

Sample ID: LCS-53620		SampType: LCS		TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS		Batch ID: 53620		RunNo: 70267						
Prep Date: 7/10/2020		Analysis Date: 7/11/2020		SeqNo: 2442170		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: <b>mb-53620</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>		Batch ID: <b>53620</b>		RunNo: <b>70267</b>						
Prep Date: <b>7/10/2020</b>		Analysis Date: <b>7/11/2020</b>		SeqNo: <b>2442171</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

### Qualifiers:

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

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

Page 44 of 48

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: mb-53624	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 53624	RunNo: 70264								
Prep Date: 7/10/2020	Analysis Date: 7/12/2020	SeqNo: 2441963	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.7	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.9	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

Sample ID: lcs-53624	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 53624	RunNo: 70264								
Prep Date: 7/10/2020	Analysis Date: 7/12/2020	SeqNo: 2441964	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.3	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		86.9	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.4	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID: 2007413-023ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: S8-1'	Batch ID: 53624	RunNo: 70264								
Prep Date: 7/10/2020	Analysis Date: 7/12/2020	SeqNo: 2441966	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9814	0	112	71.1	115			
Toluene	1.1	0.049	0.9814	0	109	79.6	132			
Ethylbenzene	1.1	0.049	0.9814	0	110	83.8	134			
Xylenes, Total	3.2	0.098	2.944	0	108	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.48		0.4907		98.5	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4907		91.4	70	130			
Surr: Dibromofluoromethane	0.49		0.4907		100	70	130			
Surr: Toluene-d8	0.50		0.4907		103	70	130			

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 45 of 48

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

WO#: 2007413

17-Jul-20

**Client:** Pima Environmental Services LLC**Project:** Shuqart 23 Fed Com#1

Sample ID: <b>2007413-023amsd</b>	SampType: <b>MSD4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>S8-1'</b>	Batch ID: <b>53624</b>	RunNo: <b>70264</b>								
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>	SeqNo: <b>2441967</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9911	0	116	71.1	115	4.85	20	S
Toluene	1.1	0.050	0.9911	0	113	79.6	132	5.12	20	
Ethylbenzene	1.1	0.050	0.9911	0	113	83.8	134	3.87	20	
Xylenes, Total	3.4	0.099	2.973	0	114	82.4	132	5.85	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4955		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.45		0.4955		91.4	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.4955		100	70	130	0	0	
Surr: Toluene-d8	0.50		0.4955		102	70	130	0	0	

Sample ID: <b>mb-53614</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>53614</b>	RunNo: <b>70265</b>								
Prep Date: <b>7/9/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442043</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.1	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		99.2	70	130			

Sample ID: <b>lcs-53614</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>53614</b>	RunNo: <b>70265</b>								
Prep Date: <b>7/9/2020</b>	Analysis Date: <b>7/11/2020</b>	SeqNo: <b>2442044</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 1,2-Dichloroethane-d4	0.55		0.5000		110	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.8	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		111	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			

**Qualifiers:**

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

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

Page 46 of 48



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

WO#: 2007413

17-Jul-20

**Client:** Pima Environmental Services LLC**Project:** Shuqart 23 Fed Com#1

Sample ID: <b>mb-53624</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>53624</b>			RunNo: <b>70264</b>						
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>			SeqNo: <b>2441997</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		104	70	130			

Sample ID: <b>lcs-53624</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>53624</b>			RunNo: <b>70264</b>						
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>			SeqNo: <b>2441998</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.1	70	130			
Surr: BFB	520		500.0		104	70	130			

Sample ID: <b>mb-53614</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>53614</b>			RunNo: <b>70265</b>						
Prep Date: <b>7/9/2020</b>	Analysis Date: <b>7/11/2020</b>			SeqNo: <b>2442071</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	450		500.0		89.8	70	130			

Sample ID: <b>lcs-53614</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>53614</b>			RunNo: <b>70265</b>						
Prep Date: <b>7/9/2020</b>	Analysis Date: <b>7/11/2020</b>			SeqNo: <b>2442072</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	75.9	70	130			
Surr: BFB	480		500.0		96.2	70	130			

Sample ID: <b>2007413-024ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>S8-2'</b>	Batch ID: <b>53624</b>			RunNo: <b>70276</b>						
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>			SeqNo: <b>2442809</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.75	0	102	70	130			
Surr: BFB	520		495.0		105	70	130			

Sample ID: <b>2007413-024amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>S8-2'</b>	Batch ID: <b>53624</b>			RunNo: <b>70276</b>						
Prep Date: <b>7/10/2020</b>	Analysis Date: <b>7/12/2020</b>			SeqNo: <b>2442810</b>		Units: <b>mg/Kg</b>				
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#: 2007413

17-Jul-20

Client: Pima Environmental Services LLC

Project: Shuqart 23 Fed Com#1

Sample ID: 2007413-024amsd		SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: S8-2'		Batch ID: 53624		RunNo: 70276						
Prep Date: 7/10/2020		Analysis Date: 7/12/2020		SeqNo: 2442810		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.85	0	99.4	70	130	2.38	20	
Surr: BFB	510		497.0		102	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: Pima Environmental Services LLC

Work Order Number: 2007413

RcptNo: 1

Received By: Juan Rojas 7/9/2020 9:18:00 AM

Completed By: Juan Rojas 7/9/2020 10:27:18 AM

Reviewed By: em 7/9/20

### Chain of Custody

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

### Log In

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

# of preserved bottles checked for pH:

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

Adjusted?

Checked by: JR 7/9/20

### Special Handling (if applicable)

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

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

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.7	Good				



## Chain-of-Custody Record

Client: Pima Environmental

Mailing Address: 1601 N. Turner STE500  
Hobbs, NM 88240

Phone #: 575-631-6977

email or Fax#: Chris@Pimaoil.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_

Turn-Around Time: 5 Days

☒ Standard ☐ Rush

Project Name:

Shugart 23 Fed Com #1

Project #: WBS#  
20778842

Project Manager:

Chris Jones

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 0.5-0.1-0.7 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
7/8/20	1000		S1-0-6"	GLASS	ICE	-001											
	1005		S1-1'			-002											
	1000		S1-2'			-003											
	1015		S2-0-6"			-004											
	1020		S2-1'			-005											
	1025		S2-2'			-006											
	1030		S3-0-6"			-007											
	1035		S3-1'			-008											
	1040		S3-2'			-009											
	1045		S4-0-6"			-010											
	1050		S4-1'			-011											
	1055		S4-2'			-012											

Date: 7/8/20 Time: \_\_\_\_\_ Relinquished by: Mark Newcomb

Received by: G Cumming Via: \_\_\_\_\_ Date: 7/8/20 Time: 1530

Remarks:

Devon Direct B.I.I

Date: 7/8/20 Time: 1900 Relinquished by: G Cumming

Received by: runner Via: \_\_\_\_\_ Date: 7/9/20 Time: 948

1 of 4



Released to Imaging: 1/2/2025 11:53:34 AM

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:
---------------

Shugart 23 Fed Com #1

Project #: WBS#  
20778842

Project Manager:

Chris JONES

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers:

Cooler Temp (including CF):  $0.8 - 0.1 = 0.7$  ( $^{\circ}\text{C}$ )[illegible]

Received by:	Via:	Date	Time
Accumings		7/8/20	1530

Remarks: Devon Direct Bill 2 of 4

Received by:	Via:	Date	Time
<i>[Signature]</i>	counter	7/19/20	9:18



Released to Imaging: 1/2/2025 11:53:34 AM

☐ EDD (Type)

# of Coolers:

Cooler Temp(including CF):  $0.8 - 0.1 = 0.7 (^{\circ}\text{C})$ Container  
Type and #Preservative  
Type

HEAL No.  
2007413

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

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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>
8260 (VOA)
8270 (Semi-VOA)
Total Coliform (Present/Absent)
Chloride

Remarks:	
----------	--

Received by:	Via:	Date	Time
<i>[Signature]</i>	curier	7/19/20	9:18

Devon Direct Bill

3 of 4







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

October 27, 2020

Chris Jones

Pima Environmental Services LLC

1601 N. Turner Ste 500

Hobbs, NM 88240

TEL: (575) 631-6977

FAX:

RE: Shugarts 23 Fed Com 1

OrderNo.: 2010A67

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/22/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2010A67

Date Reported: 10/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4

Project: Shugarts 23 Fed Com 1

Collection Date: 10/21/2020 2:15:00 PM

Lab ID: 2010A67-001

Matrix: SOIL

Received Date: 10/22/2020 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	10/23/2020 1:30:38 PM	55992
Motor Oil Range Organics (MRO)	79	49		mg/Kg	1	10/23/2020 1:30:38 PM	55992
Surr: DNOP	102	30.4-154		%Rec	1	10/23/2020 1:30:38 PM	55992
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/24/2020 8:25:59 AM	55990
Surr: BFB	93.1	75.3-105		%Rec	1	10/24/2020 8:25:59 AM	55990

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

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

Page 1 of 5



CLIENT: Pima Environmental Services LLC

Client Sample ID: S5

Project: Shugarts 23 Fed Com 1

Collection Date: 10/21/2020 2:20:00 PM

Lab ID: 2010A67-002

Matrix: SOIL

Received Date: 10/22/2020 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	10/23/2020 1:50:22 PM	55992
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/23/2020 1:50:22 PM	55992
Surr: DNOP	93.7	30.4-154		%Rec	1	10/23/2020 1:50:22 PM	55992
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/24/2020 8:49:22 AM	55990
Surr: BFB	92.9	75.3-105		%Rec	1	10/24/2020 8:49:22 AM	55990

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

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

Page 2 of 5

## Analytical Report

Lab Order 2010A67

Date Reported: 10/27/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S6

Project: Shugarts 23 Fed Com 1

Collection Date: 10/21/2020 2:25:00 PM

Lab ID: 2010A67-003

Matrix: SOIL

Received Date: 10/22/2020 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	10/23/2020 2:00:23 PM	55992
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	10/23/2020 2:00:23 PM	55992
Surr: DNOP	110	30.4-154		%Rec	1	10/23/2020 2:00:23 PM	55992
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/24/2020 9:12:49 AM	55990
Surr: BFB	94.2	75.3-105		%Rec	1	10/24/2020 9:12:49 AM	55990

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

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

Page 3 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2010A67

27-Oct-20

Client: Pima Environmental Services LLC

Project: Shugarts 23 Fed Com 1

Sample ID: LCS-55992	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 55992			RunNo: 72876						
Prep Date: 10/22/2020	Analysis Date: 10/23/2020			SeqNo: 2562831		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	70	130			
Surr: DNOP	4.7		5.000		93.4	30.4	154			

Sample ID: MB-55992	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 55992			RunNo: 72876						
Prep Date: 10/22/2020	Analysis Date: 10/23/2020			SeqNo: 2562833		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		92.5	30.4	154			

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#: 2010A67

27-Oct-20

Client: Pima Environmental Services LLC

Project: Shugarts 23 Fed Com 1

Sample ID: <b>lcs-55990</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>55990</b>				RunNo: <b>72897</b>					
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/24/2020</b>				SeqNo: <b>2562395</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.0	72.5	106			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: <b>mb-55990</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015D: Gasoline Range</b>					
Client ID: <b>PBS</b>	Batch ID: <b>55990</b>				RunNo: <b>72897</b>					
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/24/2020</b>				SeqNo: <b>2562397</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.1	75.3	105			

- Qualifiers:
- \*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of range due to dilution or matrix

B

Analyte detected in the associated Method Blank

E

Value above quantitation range

J

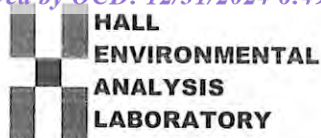
Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



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: **Pima Environmental Services LLC**

Work Order Number: **2010A67**

RcptNo: 1

Received By: **Isaiah Ortiz**

10/22/2020 7:40:00 AM

*IOX*

Completed By: **Emily Mocho**

10/22/2020 12:17:08 PM

Reviewed By:

*JR 10/22/20*

### Chain of Custody

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

### Log In

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

# of preserved  
bottles checked  
for pH:

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

Adjusted?

Checked by:

*IO*  
*10/22/20*

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good				





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

---

December 04, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: SHUGART 23 FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 11/30/20 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
1601 N TURNER STE. 500  
HOBBS NM, 88240

Project: SHUGART 23 FED COM #1  
Project Number: NONE GIVEN  
Project Manager: CHRIS JONES  
Fax To:

Reported:  
04-Dec-20 15:58

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S - 9	H003127-01	Soil	25-Nov-20 10:00	30-Nov-20 12:30

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PIMA ENVIROMENTAL  
1601 N TURNER STE. 500  
HOBBS NM, 88240

Project: SHUGART 23 FED COM #1  
Project Number: NONE GIVEN  
Project Manager: CHRIS JONES  
Fax To:

Reported:  
04-Dec-20 15:58

**S - 9****H003127-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0113010	MS	01-Dec-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0113010	MS	01-Dec-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0113010	MS	01-Dec-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0113010	MS	01-Dec-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0113010	MS	01-Dec-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			101 %	73.3-129		0113010	MS	01-Dec-20	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0120103	MS	01-Dec-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0120103	MS	01-Dec-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0120103	MS	01-Dec-20	8015B	
Surrogate: 1-Chlorooctane			114 %	44.3-144		0120103	MS	01-Dec-20	8015B	
Surrogate: 1-Chlorooctadecane			120 %	42.2-156		0120103	MS	01-Dec-20	8015B	

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

PIMA ENVIROMENTAL  
1601 N TURNER STE. 500  
HOBBS NM, 88240

Project: SHUGART 23 FED COM #1  
Project Number: NONE GIVEN  
Project Manager: CHRIS JONES  
Fax To:

Reported:  
04-Dec-20 15:58

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 0113010 - Volatiles****Blank (0113010-BLK1)**

Prepared: 30-Nov-20 Analyzed: 01-Dec-20

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	73.3-129			

**LCS (0113010-BS1)**

Prepared: 30-Nov-20 Analyzed: 01-Dec-20

Benzene	1.96	0.050	mg/kg	2.00		98.2	72.2-131			
Toluene	1.89	0.050	mg/kg	2.00		94.3	71.7-126			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.7	68.9-126			
Total Xylenes	5.64	0.150	mg/kg	6.00		94.0	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0504		mg/kg	0.0500		101	73.3-129			

**LCS Dup (0113010-BSD1)**

Prepared: 30-Nov-20 Analyzed: 01-Dec-20

Benzene	2.05	0.050	mg/kg	2.00		103	72.2-131	4.41	14.6	
Toluene	1.97	0.050	mg/kg	2.00		98.7	71.7-126	4.60	17.4	
Ethylbenzene	2.06	0.050	mg/kg	2.00		103	68.9-126	4.30	18.9	
Total Xylenes	5.88	0.150	mg/kg	6.00		98.0	71.4-125	4.14	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	73.3-129			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PIMA ENVIROMENTAL  
1601 N TURNER STE. 500  
HOBBS NM, 88240

Project: SHUGART 23 FED COM #1  
Project Number: NONE GIVEN  
Project Manager: CHRIS JONES  
Fax To:

Reported:  
04-Dec-20 15:58

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch 0120103 - General Prep - Organics****Blank (0120103-BLK1)**

Prepared &amp; Analyzed: 01-Dec-20

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	45.2		mg/kg	50.0		90.5	44.3-144			
Surrogate: 1-Chlorooctadecane	46.2		mg/kg	50.0		92.4	42.2-156			

**LCS (0120103-BS1)**

Prepared &amp; Analyzed: 01-Dec-20

GRO C6-C10	208	10.0	mg/kg	200		104	78.8-127			
DRO >C10-C28	180	10.0	mg/kg	200		89.9	80-132			
Total TPH C6-C28	388	10.0	mg/kg	400		97.0	81.3-128			
Surrogate: 1-Chlorooctane	48.5		mg/kg	50.0		97.1	44.3-144			
Surrogate: 1-Chlorooctadecane	49.9		mg/kg	50.0		99.8	42.2-156			

**LCS Dup (0120103-BSD1)**

Prepared &amp; Analyzed: 01-Dec-20

GRO C6-C10	220	10.0	mg/kg	200		110	78.8-127	5.58	15.1	
DRO >C10-C28	203	10.0	mg/kg	200		101	80-132	12.1	17.1	
Total TPH C6-C28	423	10.0	mg/kg	400		106	81.3-128	8.68	15	
Surrogate: 1-Chlorooctane	54.4		mg/kg	50.0		109	44.3-144			
Surrogate: 1-Chlorooctadecane	56.8		mg/kg	50.0		114	42.2-156			

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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

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

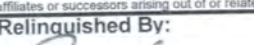



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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Relinquished By: 		Date: 11-30-20 Time: 12:30		Received By: 		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address:	
Relinquished By:		Date: Time:		Received By:		REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C 12.7 Corrected Temp. °C		Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: (Initials) TO	
Sampler - UPS - Bus - Other:		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113 Correction Factor None	

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 415978

**QUESTIONS**

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 415978
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nMLB0912449922
Incident Name	NMLB0912449922 SHUGART 23 FED COM #1 @ 30-015-30448
Incident Type	Oil Release
Incident Status	Remediation Plan Received
Incident Well	[30-015-30448] SHUGART 23 FEDEAL COM #001

**Location of Release Source***Please answer all the questions in this group.*

Site Name	SHUGART 23 FED COM #1
Date Release Discovered	04/23/2009
Surface Owner	Federal

**Incident Details***Please answer all the questions in this group.*

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

**Nature and Volume of Release***Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Cause: Corrosion   Production Tank   Crude Oil   Released: 40 BBL   Recovered: 11 BBL   Lost: 29 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 2

Action 415978

**QUESTIONS (continued)**

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 415978
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Michael Lee Title: COO Email: michael@raybawoperating.com Date: 12/31/2024
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Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
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Online Phone Directory  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS, Page 3

Action 415978

**QUESTIONS (continued)**

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 415978
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	1800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	94590
GRO+DRO (EPA SW-846 Method 8015M)	91680
BTEX (EPA SW-846 Method 8021B or 8260B)	635.5
Benzene (EPA SW-846 Method 8021B or 8260B)	17.5

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	02/15/2025
On what date will (or did) the final sampling or liner inspection occur	02/22/2025
On what date will (or was) the remediation complete(d)	02/28/2025
What is the estimated surface area (in square feet) that will be reclaimed	4725
What is the estimated volume (in cubic yards) that will be reclaimed	525
What is the estimated surface area (in square feet) that will be remediated	4725
What is the estimated volume (in cubic yards) that will be remediated	525

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 415978

**QUESTIONS (continued)**

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 415978
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [FEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Michael Lee Title: COO Email: michael@raybawoperating.com Date: 12/31/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5  
  
Action 415978

QUESTIONS (continued)

Operator:  RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID:  330220
	Action Number:  415978
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No



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QUESTIONS, Page 6  
  
Action 415978

QUESTIONS (continued)

Operator:  RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID:  330220
	Action Number:  415978
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 415978

CONDITIONS

Operator: RAYBAW Operating, LLC 2626 Cole Avenue Dallas, TX 75204	OGRID: 330220
	Action Number: 415978
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation work plan approved. Submit a remediation closure report via the OCD permitting portal by April 4, 2025.	1/2/2025