



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

April 30th, 2021

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

Bureau of Land Management
Mr. Jim Amos
620 East Green Street
Carlsbad, NM 88220

**Re: Remediation Activities & Closure Report
Emerald PWU 20 #001H
API No. 30-015-38338
GPS: Latitude 32.6525154 Longitude -104.1045456
UL "D," Sec. 20, T19S, R29E
Eddy County, NM
NMOCD Ref. No. NAB1718733399 (2RP-4281)**

Pima Environmental Services, LLC (Pima) was contracted by Devon Energy Production Company (Devon) to perform remediation activities and submit a closure report for a crude oil/produced water mixed release that occurred at the Emerald PWU 20 #001H (Emerald) on June 28th, 2017. The initial C-141 (Appendix C), was submitted on June 29th, 2017, and assigned Incident ID NAB1718733399 (2RP-4281) by the New Mexico Oil Conservation Division (NMOCD). A work plan was submitted and approved for this incident. The work plan was followed as approved. This work plan can be found in Appendix F.

Site Characterization

The Emerald is located approximately eighteen (18) miles northeast of Carlsbad, NM. This spill site is in Unit D, Section 20, Township 19S, Range 29E, Latitude 32.6525154, Longitude -104.1045456, Eddy County, NM. Figure 1 references a location map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation Eolian and piedmont deposits (Holocene to middle Pleistocene)-interlayered eolian sands and piedmont-slope deposits (QEP). According to the United States Department of Agriculture Natural Resources Conservation Service soil survey, the soil in this area comprises Simona-Bippus complex, 0 to 5 percent slopes (Appendix B). The drainage courses in this area are well-drained. There is a high potential for karst geology in the Emerald area (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 150 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the closest groundwater is between 51-100 BGS. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29					
Depth to Groundwater (Appendix A)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
150'	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
High Karst	600 mg/kg	100 mg/kg	100 mg/kg	50 mg/kg	10mg/kg
If the release occurred within any of the following areas, the responsible party would treat the release as if the groundwater was less than 50 feet per Rule 19.15.29					
Water Issues				Yes	No
Within 300 feet of any continuously flowing watercourse or any other significant watercourse					x
Within 200 feet of any lakebed, sinkhole, or playa lake (measures from the ordinary high-water mark)					x
Within 300 feet from an occupied permanent residence, school, hospital, institution, or church					x
Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes					x
Within 1000 feet of any freshwater well or spring					x
Within incorporated municipal boundaries or within a defined municipal freshwater well field					x
Within 300 feet of a wetlands					x
Within the area overlying a subsurface mine					x
Within an unstable area (Karst)				x	
Within a 100-year floodplain					x

Reference Figure 2 for a Topographic Map.

Release Information

2RP-4281: On June 28, 2017, repairs were being made to the three-phase separator, gas, and sand cut the water dump resulting in a release of 0.5 bbls of oil and 4.5 bbls of produced water. The wells were shut-in, repairs were made to contain the leak. No fluids were recovered in this area.

Site Assessment and Soil Sampling Results

Another Environmental Service Company conducted a site assessment and soil sampling event for this incident. They submitted a work plan that was approved by the NMOC (Appendix F).

On July 7, 2020, Pima Environmental mobilized to the site to conduct a site assessment and obtain soil samples. Upon first look, there was no visual staining from any of the releases. We followed previously outlined diagrams and descriptions from C-141's to track the spills' vicinity and sampled in various random locations. The laboratory results of this sampling event can be found in the following data table.

7-7-20 Soil Sample Results

NMOC Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 7-7-20		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	360
	1	ND	ND	ND	ND	ND	ND	160
S-2	0-6	ND	ND	ND	11000	8300	19300	3800
	S-3	0-6	ND	ND	ND	11	ND	17000
S-4	0-6	ND	ND	ND	ND	ND	ND	570
	1	ND	ND	ND	ND	ND	ND	210
S-5	0-6	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	64
S-6	0-6	ND	ND	ND	ND	ND	ND	1200
	1	ND	ND	ND	ND	ND	ND	ND
S-7	0-6	ND	ND	ND	ND	ND	ND	ND
	1	ND	ND	ND	ND	ND	ND	ND
S-8	0-6	ND	ND	ND	ND	ND	ND	2300
	1	ND	ND	ND	ND	ND	ND	200
S-9	0-6	ND	ND	ND	20000	12000	32000	4100
	1	ND	ND	ND	240	190	430	430
S-10	0-6	ND	ND	ND	2700	3200	5900	2600
S-11	0-6	ND	ND	ND	3500	3600	7100	250
	1	ND	ND	ND	74	90	164	460

ND- Analyte Not Detected

Remediation Activities

Pima submitted a work plan to address all open incidents associated with this site that was ultimately approved and followed. Pima removed the contaminated areas from the releases and our sampling event that exceeded the NMAC Closure Criteria. We remediated through excavation and removal using mechanical equipment and hand tools. The area in the vicinity of S-2 and S-3 was excavated to a depth of 2-feet BGS. As we started excavating in the vicinity of S-6, S-8, S-9, and S-10, we extended our sampling to define where our excavation would require cleanup horizontally. This area's excavation extended further horizontally and vertically than initially expected. We ended up excavating vertically to a depth of 2-feet and 3-feet BGS respectively. The vicinity of S-11 was excavated to a depth of 2-feet BGS and ended up becoming part of the larger area. Five-point composite bottom and sidewall composite samples were obtained to ensure that the contamination's vertical and horizontal extents had been removed. Each composite sample was representative of no more than 200 square feet. Laboratory analysis includes Method SM-4500 for chlorides and Method 8015 for TPH, including MRO, DRO, and GRO. See Figure 5 for Confirmation Sample Map.

11-19-20 Extended Soil Sample Results

NMOC Table 1 Closure Criteria 19.15.29 NMAC (HIGH KARST AREA <50')								
Sample Date 11-19-20		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-15	1	ND	ND	ND	1350	272	1622	560
	2	ND	ND	ND	204	53.2	257.2	688
	3	ND	ND	ND	50.8	ND	50.8	464
S-16	1	ND	ND	ND	13.2	ND	13.2	320
	2	ND	ND	ND	ND	ND	ND	272
	3	ND	ND	ND	70.5	15.8	86.3	176
S-17	1	ND	ND	ND	ND	ND	ND	48
	2	ND	ND	ND	ND	ND	ND	32
	3	ND	ND	ND	ND	ND	ND	32
S-18	1	ND	ND	ND	ND	ND	ND	16
	2	ND	ND	ND	ND	ND	ND	32
	3	ND	ND	ND	ND	ND	ND	32
S-19	1	1.11	ND	121	4640	814	5575	368
	2	ND	ND	12	904	151	1067	512
	3	ND	ND	ND	418	80.9	498.9	544
S-20	1	ND	ND	35.6	5850	1120	7005.6	96
	2	ND	ND	ND	83.9	18.2	102.1	128
	3	ND	ND	ND	290	55.9	345.9	176
S-21	1	ND	ND	ND	123	35.6	158.6	80
S-22	1	ND	ND	ND	44.4	10.6	55	1620
	2	ND	ND	ND	22	ND	22	48
	3	ND	ND	ND	11.1	ND	11.1	32

ND-Analyte Not Detected

On November 25th, 2020, Pima sent an environmental tech to the site to obtain confirmation sidewall and bottom samples. Samples were field screened using method S300 for chlorides and using a Tiger Select to measure for VOC. The results of this sampling event can be found in the following data table.

11-25-20 Confirmation Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (HIGH KARST AREA <50')								
Sample Date	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 W. BOTTOM	2	ND	ND	ND	ND	ND	ND	64
S-1 W. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64
S-5 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	96
S-5 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80
S-6 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	112
S-6 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	112
S-13 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64
S-13 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	80
S-12 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	96
S-12 N. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64
S-11 W. BOTTOM	2	ND	ND	ND	ND	ND	ND	80
S-11 W. SIDEWALL COMP	2	ND	ND	ND	20.9	23.1	44	64
S-14 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64
S-14 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	80
S-23	1	ND	ND	ND	ND	ND	ND	112
	2	ND	ND	ND	ND	ND	ND	112
	3	ND	ND	ND	ND	ND	ND	112
S-24	1	ND	ND	ND	ND	ND	ND	800
	2	ND	ND	ND	ND	ND	ND	112
	3	ND	ND	ND	ND	ND	ND	96
S-25	1	ND	ND	ND	ND	ND	ND	272
	2	ND	ND	ND	ND	ND	ND	80
	3	ND	ND	ND	ND	ND	ND	112

ND- Analyte Not Detected

On December 10th, 2020, Pima returned to the site to obtain further confirmation samples. The results of this sampling event can be found in the following data table.

12-10-20 Confirmation Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (HIGH KARST AREA <50')								
Sample Date	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-6 S. BOTTOM	2	ND	ND	ND	ND	ND	ND	96
S-6 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80
S-9 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80
S-9 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	80
S-22 N. SIDEWALL	2	ND	ND	ND	ND	ND	ND	96
S-22 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	112
S-24 N. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	80
S-24 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	64
S-25 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	48
S-25 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	48
S-26 S. SIDEWALL COMP	3	ND	ND	ND	ND	ND	ND	80
S-26 S. BOTTOM	3	ND	ND	ND	ND	ND	ND	64

ND- Analyte Not Detected

On May 3rd, 2021, Pima returned to the site to complete the collection of confirmation samples. The results of this sampling event can be found in the following data table.

5-3-21 Confirmation Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (HIGH KARST AREA <50')								
Devon Energy - Emerald PWU 20 #1H								
Sample Date	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
S2-2'	2	ND	ND	ND	ND	ND	ND	ND
S3-2'	2	ND	ND	ND	ND	ND	ND	16
S4-2'	2	ND	ND	ND	ND	ND	ND	ND
S7-2'	2	ND	ND	ND	ND	ND	ND	ND
S8-2'	2	ND	ND	ND	ND	ND	ND	ND
S10-2'	2	ND	ND	ND	ND	ND	ND	ND

ND – Analyte Not Detected

Complete Laboratory Reports are attached in Appendix E.

Closure Request

After careful review, Pima requests that incident NAB1718733399 (2RP-4281) be closed. Devon has complied with the applicable closure requirements outlined in rule 19.15.19.12 NMAC.

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

Respectfully,



Chris Jones
Environmental Professional
Pima Environmental Services, LLC

Attachments

Figures:

- 1- Site Map
- 2- Topo Map
- 3- Karst Map
- 4- Location Map
- 5- Confirmation Sample Map

Appendices:

- Appendix A – Referenced Water Surveys
- Appendix B – Soil Survey and FEMA Flood Map
- Appendix C – C-141s
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Reports
- Appendix F – Approved Work Plan



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Figures:

1-Site Map

2-Topo Map

3-Karst Map

4-Location Map

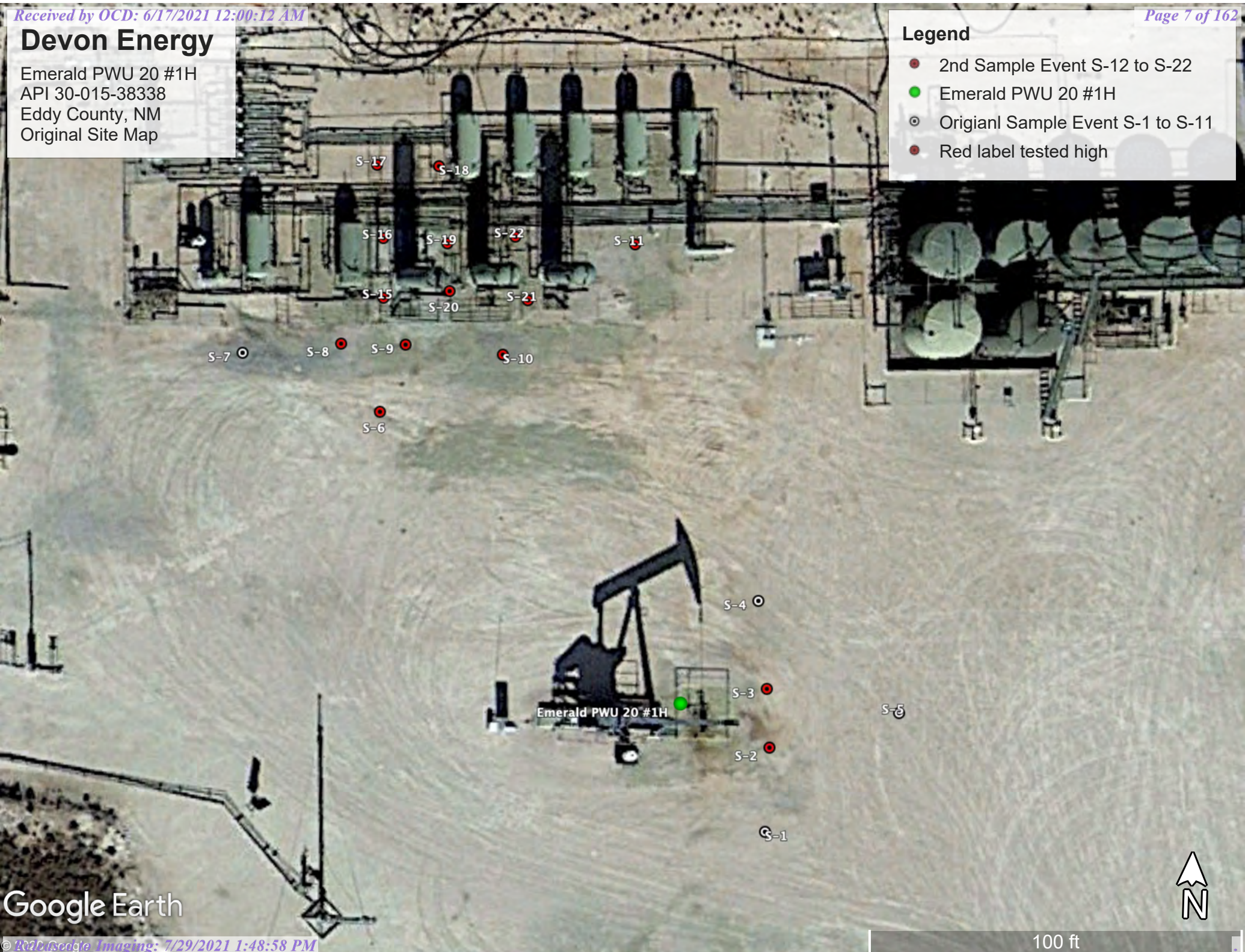
5-Confirmation Site Map

Devon Energy

Emerald PWU 20 #1H
API 30-015-38338
Eddy County, NM
Original Site Map

Legend

- 2nd Sample Event S-12 to S-22
- Emerald PWU 20 #1H
- Original Sample Event S-1 to S-11
- Red label tested high






Google Earth

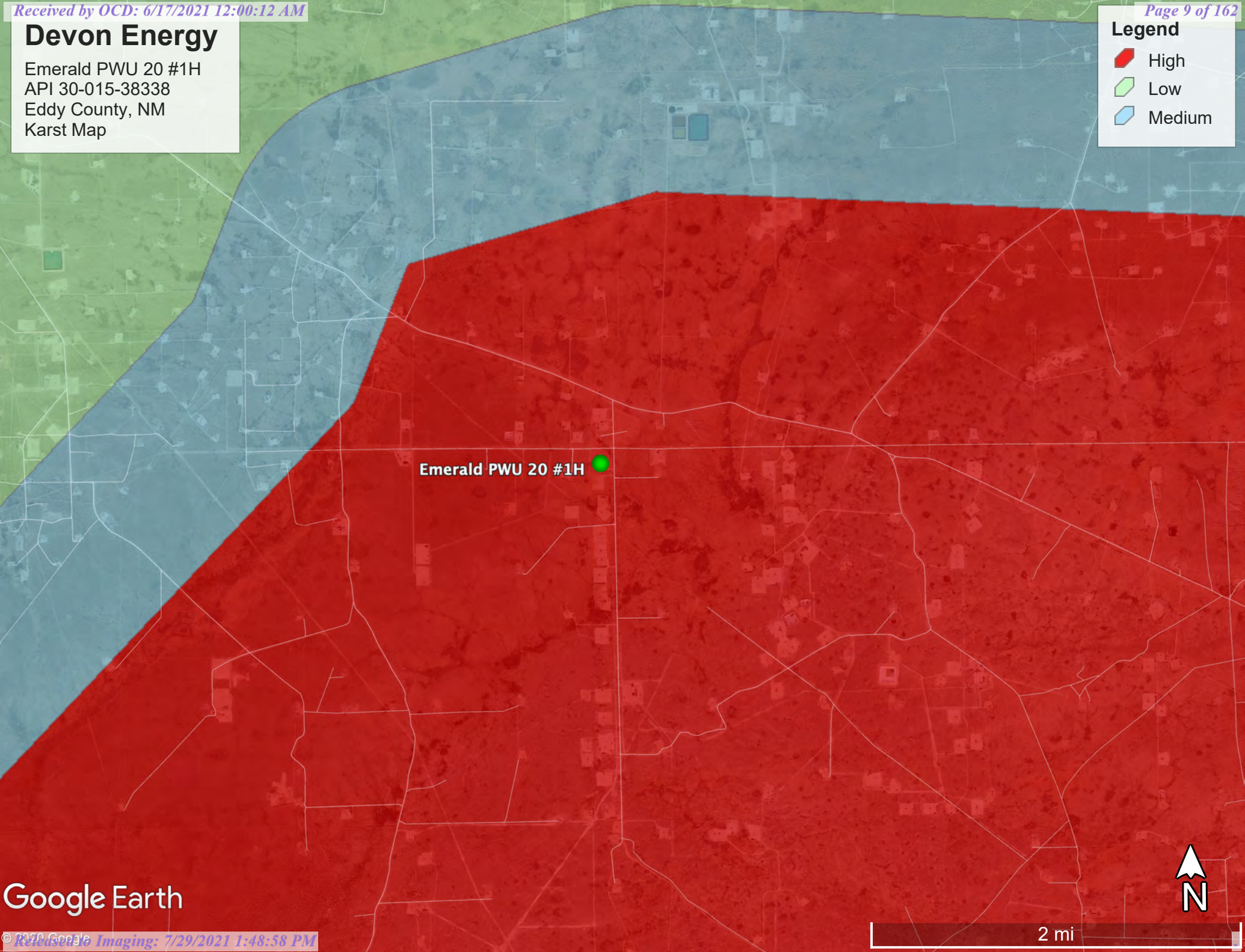
100 ft

Devon Energy

Emerald PWU 20 #1H
API 30-015-38338
Eddy County, NM
Karst Map

Legend

-  High
-  Low
-  Medium

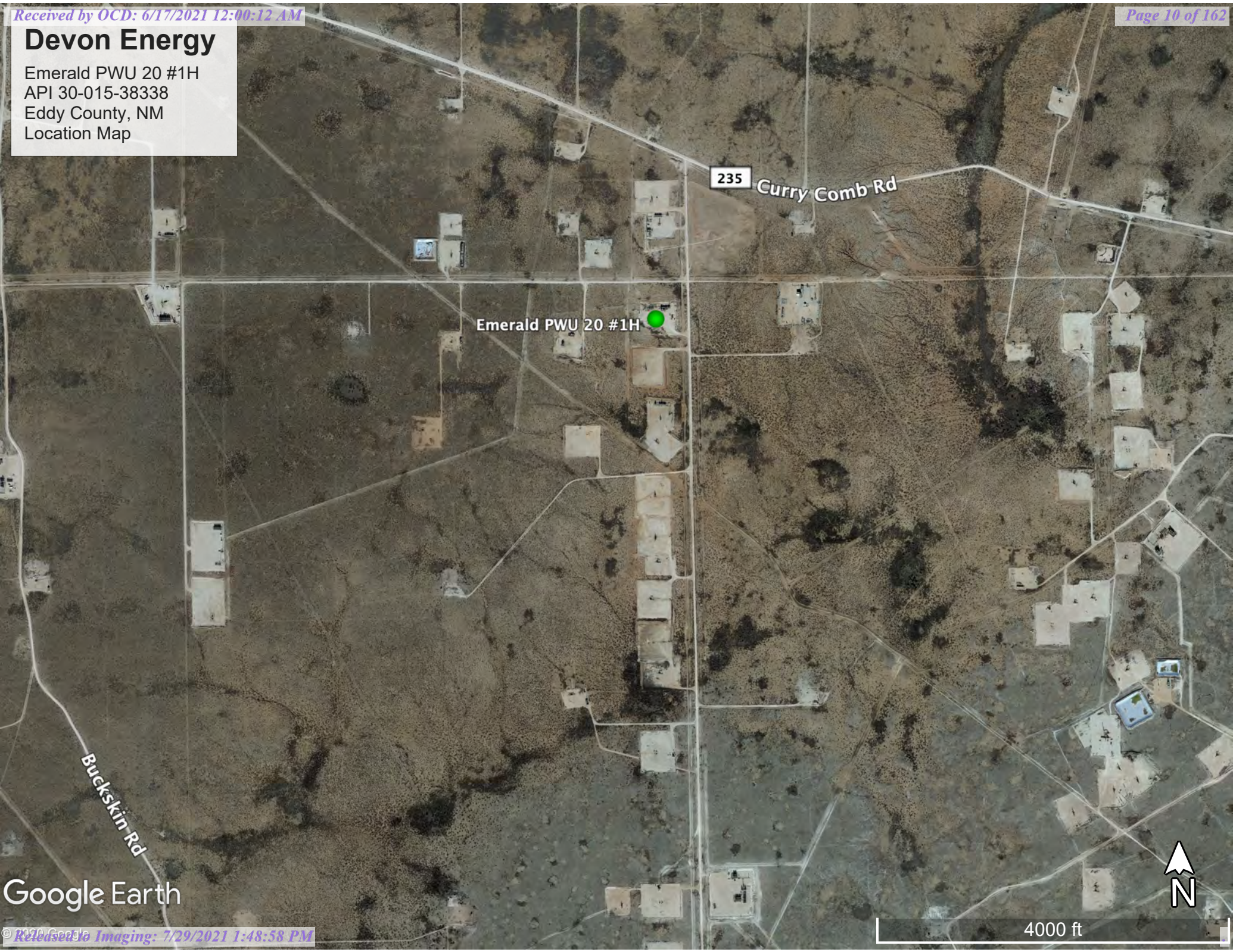


Emerald PWU 20 #1H



Devon Energy

Emerald PWU 20 #1H
API 30-015-38338
Eddy County, NM
Location Map

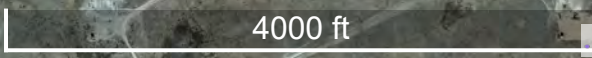


Emerald PWU 20 #1H

235 Curry Comb Rd

Buckskin Rd

Google Earth

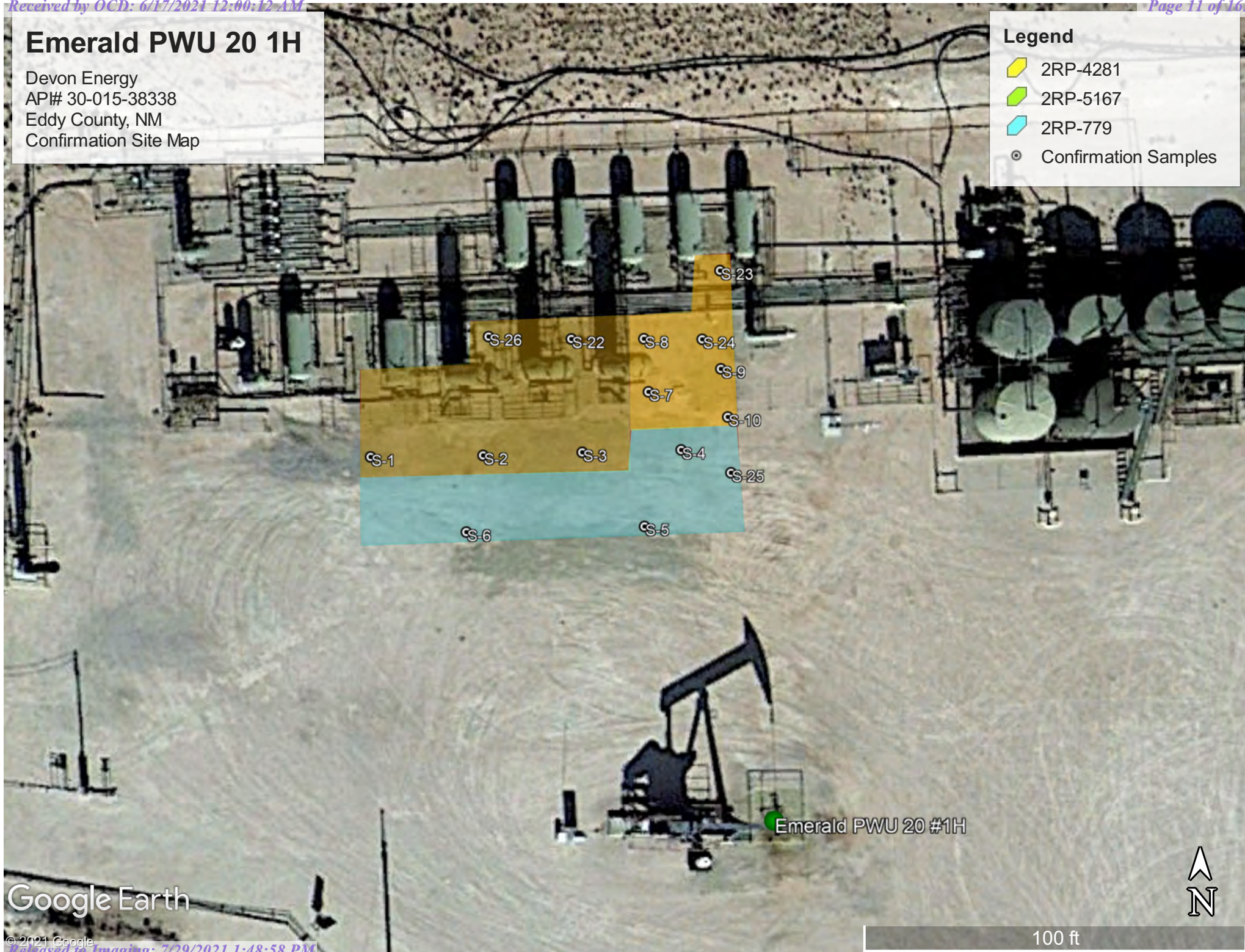


Emerald PWU 20 1H

Devon Energy
AP# 30-015-38338
Eddy County, NM
Confirmation Site Map

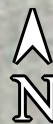
Legend

- 2RP-4281
- 2RP-5167
- 2RP-779
- ⊙ Confirmation Samples



Google Earth

Emerald PWU 20 #1H



100 ft



Pima Environmental Services

Appendix A

Water Surveys:

OSE

USGS

Surface Water Map



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

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

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00646	CP	ED	ED	1	1	4	07	19S	29E	583155	3615551	2565	199	150	49
CP 01231 POD1	CP	ED	ED	4	4	2	36	19S	28E	582311	3609372	4102	300	75	225
CP 01858 POD1	CP	ED	ED	4	1	4	01	19S	28E	581872	3617163	4556	55		
CP 00681	CP	ED	ED	1	1	3	34	19S	29E	587230	3609127*	5151			
CP 00830 POD1	CP	LE	ED	2	1	04	20S	29E	586118	3608193*	5373	120			
CP 00741	CP	ED	ED	1	3	2	34	19S	29E	588030	3609533*	5413	230	60	170
CP 00626 POD1	CP	ED	ED	2	3	1	03	19S	29E	587360	3617575	5592	286	247	39
CP 00743 POD1	CP	ED	ED	2	4	05	20S	29E	585319	3607382*	5894	160			

Average Depth to Water: **133 feet**

Minimum Depth: **60 feet**

Maximum Depth: **247 feet**

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 583977

Northing (Y): 3613121.615

Radius: 6000

*UTM location was derived from PLSS - see Help

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

4/30/21 7:07 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

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Search Results -- 1 sites found

site_no list =

- 323900104052901

Minimum number of levels = 1

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

USGS 323900104052901 19S.29E.20.24111 RATLSNAKE

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°39'00", Longitude 104°05'29" NAD27

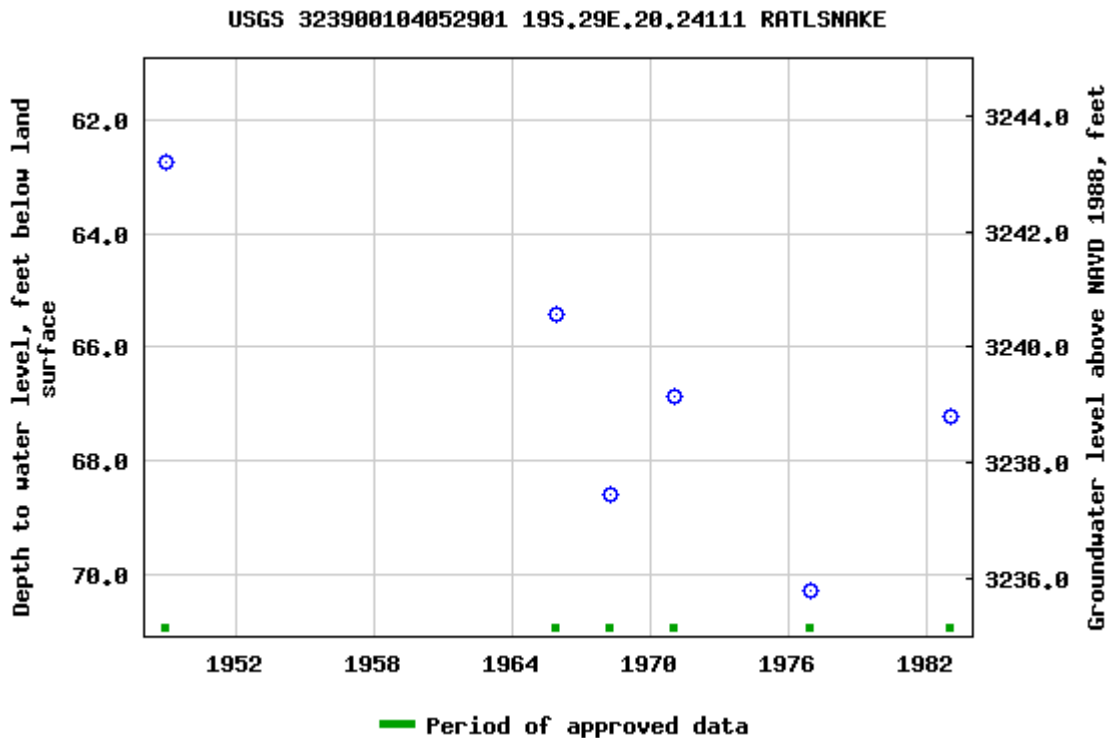
Land-surface elevation 3,306 feet above NAVD88

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

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

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.

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site_no list =

- 323845104075601

Minimum number of levels = 1

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

USGS 323845104075601 19S.28E.24.32233

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°38'45", Longitude 104°07'56" NAD27

Land-surface elevation 3,352 feet above NAVD88

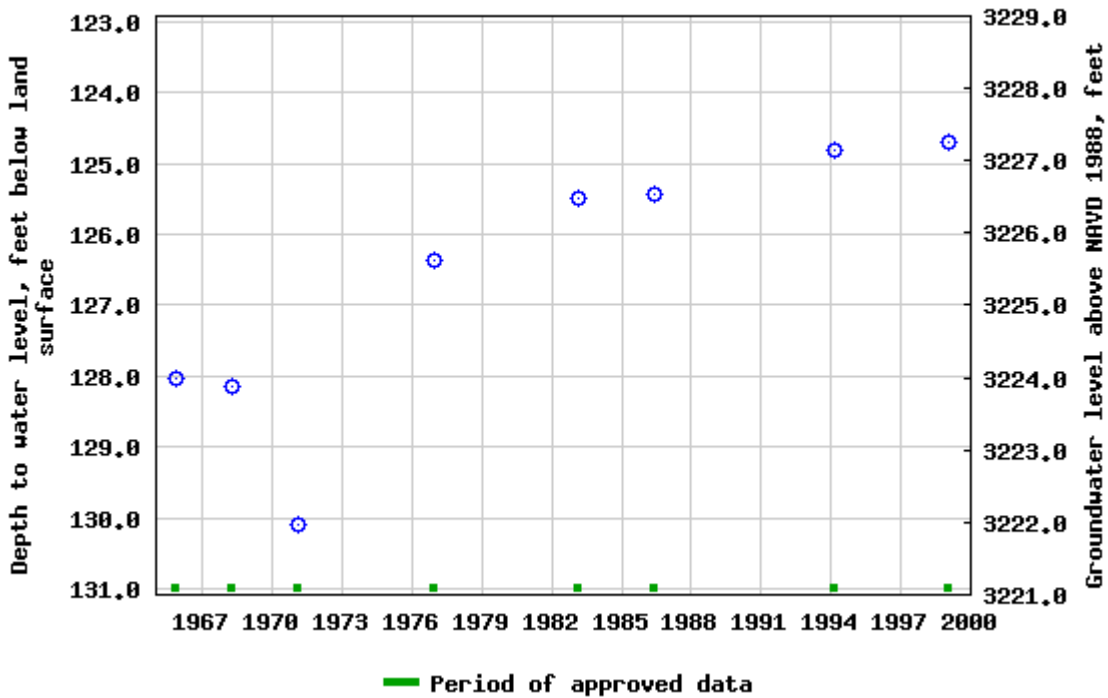
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

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

Output formats

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

USGS 323845104075601 19S.28E.24.32233



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

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





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

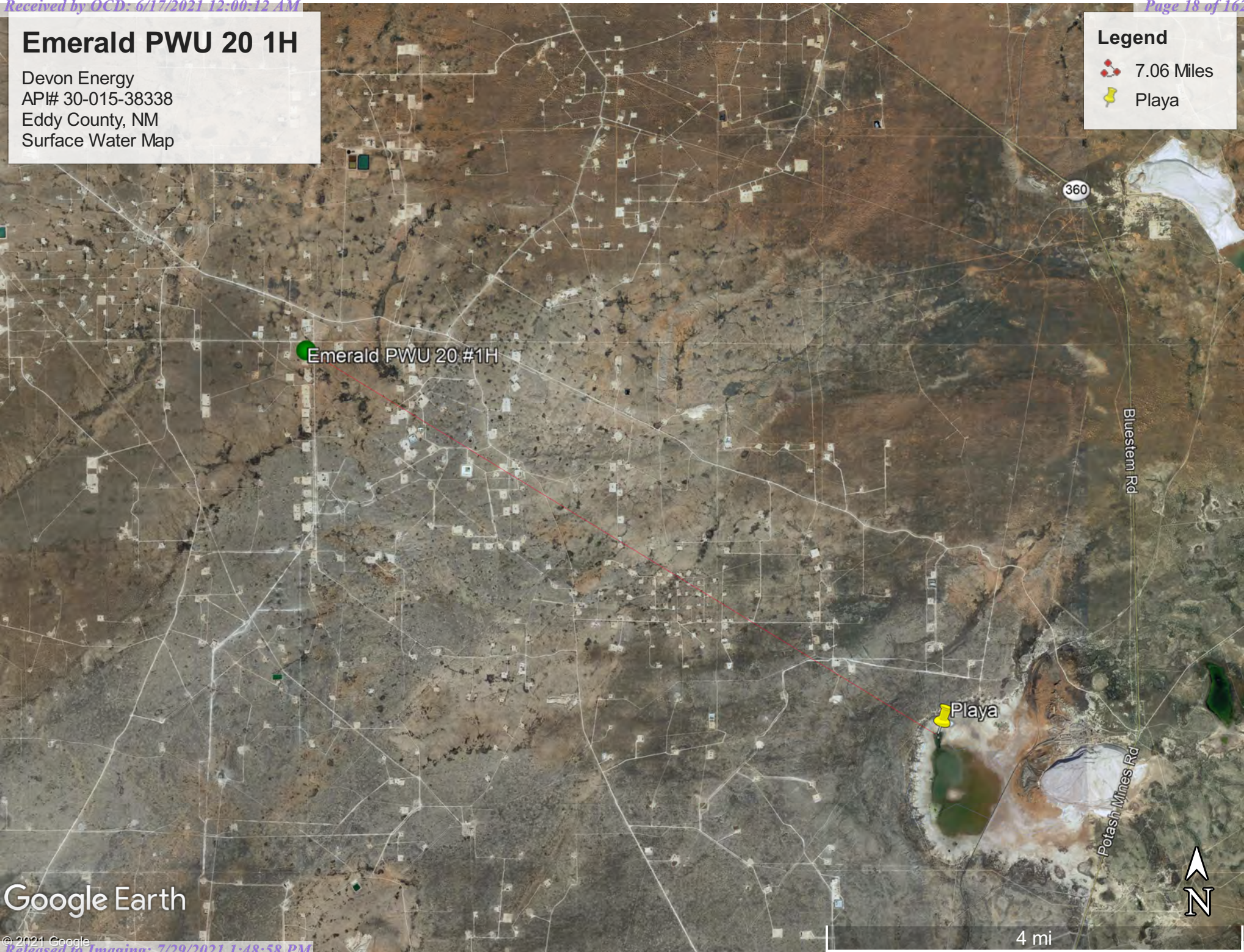
Page Last Modified: 2021-04-30 09:12:46 EDT

0.66 0.59 nadww01

Emerald PWU 20 1H
Devon Energy
AP# 30-015-38338
Eddy County, NM
Surface Water Map

Legend

-  7.06 Miles
-  Playa



Google Earth

4 mi



Pima Environmental Services

Appendix B

Soil Survey & Geological Data

FEMA Flood Map

Map Unit Description: Simona-Bippus complex, 0 to 5 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

SM—Simona-Bippus complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1w5x
Elevation: 1,800 to 5,000 feet
Mean annual precipitation: 8 to 24 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 55 percent
Bippus and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 19 inches: gravelly fine sandy loam
H2 - 19 to 23 inches: indurated

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D

Map Unit Description: Simona-Bippus complex, 0 to 5 percent slopes---Eddy Area, New Mexico

Ecological site: Shallow Sandy (R042XC002NM)
Hydric soil rating: No

Description of Bippus

Setting

Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 37 inches: silty clay loam
H2 - 37 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very 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: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Bottomland (R042XC017NM)
Hydric soil rating: No

Minor Components

Simona

Percent of map unit: 8 percent
Ecological site: Shallow Sandy (R042XC002NM)
Hydric soil rating: No

Bippus

Percent of map unit: 7 percent
Ecological site: Bottomland (R042XC017NM)

Map Unit Description: Simona-Bippus complex, 0 to 5 percent slopes---Eddy Area, New Mexico

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 15, Sep 15, 2019

National Flood Hazard Layer FIRMette



32°39'24.20"N



Legend

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

- | | | |
|-----------------------------|--|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
Zone A, V, A99 |
| | | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | | Area with Reduced Flood Risk due to Levee. See Notes. Zone X |
| | | Area with Flood Risk due to Levee Zone D |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard Zone D |
| | | 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 |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/10/2020 at 1:40:02 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.



Pima Environmental Services

Appendix C

C-141's:

Initial

Final

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

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

JUN 29 2017

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

RECEIVED

Release Notification and Corrective Action

NAB1718733399

OPERATOR

Initial Report Final Report

Name of Company Devon Energy Production Company	Contact Danny Velo, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-703-3360
Facility Name Emerald PWU 20 1H	Facility Type Oil

Surface Owner State	Mineral Owner State	API No 30-015-38338
----------------------------	----------------------------	----------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	20	19S	29E	400'	FNL	330'	FWL	Eddy

Latitude: 32.6525154

Longitude: -104.1045456

NATURE OF RELEASE

Type of Release Oil & Produced Water	Volume of Release .5bbls oil & 4.5bbls produced water	Volume Recovered 0bbls recovered
Source of Release Water dump on three-phase separator	Date and Hour of Occurrence June 28, 2017 @ 7:00 PM	Date and Hour of Discovery June 28, 2017 @ 7:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker, BLM Mike Bratcher, OCD	
By Whom? Jesse Armendariz, Asst. Production Foreman	Date and Hour Shelly Tucker, BLM June 28, 2017 @ 9:38 PM Mike Bratcher, OCD June 28, 2017 @ 9:40 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Three-phase separator was being bled down when gas and sand cut the water dump. The wells producing to the battery were shut in to stop the flow to the battery and then the water dump and three-phase separator were isolated.

Describe Area Affected and Cleanup Action Taken.*
Approximately .5bbls oil and 4.5bbls produced water were released on to location. All fluid remained on location and 0bbls were recovered. The affected area is approximately 13' x 12' on location. An environmental contractor will be contacted to assist with delineation and remediation

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: Sheila Fisher	OIL CONSERVATION DIVISION	
Printed Name: Sheila Fisher	Approved by Environmental Specialist: <i>Crystal W...</i>	
Title: Field Admin Support	Approval Date: 7/3/17	Expiration Date: N/A
E-mail Address: Sheila.fisher@dvn.com	Conditions of Approval: see attached	Attached: <input checked="" type="checkbox"/>
Date: 6/29/17 Phone: 575.748.1829		

* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at:

<http://www.emnrd.state.nm.us/>

Thank you

2RP-4281

Incident ID	NAB1718733399
District RP	2RP-4281
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	150 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Oil Conservation Division

Incident ID	NAB1718733399
District RP	2RP-4281
Facility ID	
Application ID	

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

Printed Name: Tom Bynum Title: EHS Consultant

Signature: *Tom Bynum* Date: 10/21/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1718733399
District RP	2RP-4281
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
 Signature: *Tom Bynum* Date: 10/21/2020
 email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	NAB1718733399
District RP	2RP-4281
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant

Signature: *Tom Bynum* Date: 10-21-20

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



Pima Environmental Services

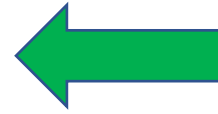
Appendix D

Photographic Documentation

Excavation Photos

Tank Battery Area





In Front of Wellhead for 2RP-5377

Completed & Backfilled







Pima Environmental Services

Appendix E

Laboratory Reports



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

July 16, 2020

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

RE: Emerald PWU 20 1H

OrderNo.: 2007408

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 18 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 or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S1, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:30:00 PM

Lab ID: 2007408-001

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	360	60		mg/Kg	20	7/11/2020 4:41:31 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/11/2020 9:45:27 PM	53614
Surr: BFB	93.5	70-130		%Rec	1	7/11/2020 9:45:27 PM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/11/2020 10:07:05 AM	53629
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 10:07:05 AM	53629
Surr: DNOP	97.5	55.1-146		%Rec	1	7/11/2020 10:07:05 AM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	7/11/2020 9:45:27 PM	53614
Toluene	ND	0.046		mg/Kg	1	7/11/2020 9:45:27 PM	53614
Ethylbenzene	ND	0.046		mg/Kg	1	7/11/2020 9:45:27 PM	53614
Xylenes, Total	ND	0.092		mg/Kg	1	7/11/2020 9:45:27 PM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/11/2020 9:45:27 PM	53614
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	7/11/2020 9:45:27 PM	53614
Surr: Dibromofluoromethane	112	70-130		%Rec	1	7/11/2020 9:45:27 PM	53614
Surr: Toluene-d8	101	70-130		%Rec	1	7/11/2020 9:45:27 PM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S1, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:35:00 PM

Lab ID: 2007408-002

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	160	60		mg/Kg	20	7/11/2020 4:53:56 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/11/2020 10:42:56 PM	53614
Surr: BFB	94.9	70-130		%Rec	1	7/11/2020 10:42:56 PM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2020 11:20:31 AM	53629
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 11:20:31 AM	53629
Surr: DNOP	56.7	55.1-146		%Rec	1	7/11/2020 11:20:31 AM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/11/2020 10:42:56 PM	53614
Toluene	ND	0.048		mg/Kg	1	7/11/2020 10:42:56 PM	53614
Ethylbenzene	ND	0.048		mg/Kg	1	7/11/2020 10:42:56 PM	53614
Xylenes, Total	ND	0.097		mg/Kg	1	7/11/2020 10:42:56 PM	53614
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/11/2020 10:42:56 PM	53614
Surr: Toluene-d8	104	70-130		%Rec	1	7/11/2020 10:42:56 PM	53614

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

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

Analytical Report

Lab Order 2007408

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S2, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:40:00 PM

Lab ID: 2007408-003

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	3800	150		mg/Kg	50	7/13/2020 3:54:10 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Surr: BFB	93.1	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	11000	490		mg/Kg	50	7/11/2020 11:45:11 AM	53629
Motor Oil Range Organics (MRO)	8300	2500		mg/Kg	50	7/11/2020 11:45:11 AM	53629
Surr: DNOP	0	55.1-146	S	%Rec	50	7/11/2020 11:45:11 AM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Toluene	ND	0.23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Ethylbenzene	ND	0.23	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Xylenes, Total	ND	0.46	D	mg/Kg	5	7/12/2020 2:04:49 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
Surr: 4-Bromofluorobenzene	93.7	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
Surr: Dibromofluoromethane	109	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614
Surr: Toluene-d8	102	70-130	D	%Rec	5	7/12/2020 2:04:49 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S3, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:45:00 PM

Lab ID: 2007408-004

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	17000	600		mg/Kg	200	7/13/2020 4:06:35 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Surr: BFB	97.3	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	7/11/2020 12:09:59 PM	53629
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2020 12:09:59 PM	53629
Surr: DNOP	49.1	55.1-146	S	%Rec	1	7/11/2020 12:09:59 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 2:33:19 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614
Surr: Toluene-d8	103	70-130		%Rec	1	7/12/2020 2:33:19 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:50:00 PM

Lab ID: 2007408-005

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	570	60		mg/Kg	20	7/11/2020 5:31:09 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 3:01:50 AM	53614
Surr: BFB	96.1	70-130		%Rec	1	7/12/2020 3:01:50 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/11/2020 12:34:49 PM	53629
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 12:34:49 PM	53629
Surr: DNOP	33.0	55.1-146	S	%Rec	1	7/11/2020 12:34:49 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 3:01:50 AM	53614
Toluene	ND	0.048		mg/Kg	1	7/12/2020 3:01:50 AM	53614
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 3:01:50 AM	53614
Xylenes, Total	ND	0.096		mg/Kg	1	7/12/2020 3:01:50 AM	53614
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	7/12/2020 3:01:50 AM	53614
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	7/12/2020 3:01:50 AM	53614
Surr: Dibromofluoromethane	112	70-130		%Rec	1	7/12/2020 3:01:50 AM	53614
Surr: Toluene-d8	102	70-130		%Rec	1	7/12/2020 3:01:50 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S4, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 3:55:00 PM

Lab ID: 2007408-006

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	210	60		mg/Kg	20	7/11/2020 5:43:33 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Surr: BFB	96.4	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2020 12:59:50 PM	53629
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 12:59:50 PM	53629
Surr: DNOP	44.3	55.1-146	S	%Rec	1	7/11/2020 12:59:50 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Toluene	ND	0.050		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Ethylbenzene	ND	0.050		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Xylenes, Total	ND	0.10		mg/Kg	1	7/12/2020 3:30:36 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614
Surr: Toluene-d8	104	70-130		%Rec	1	7/12/2020 3:30:36 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S5, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:00:00 PM

Lab ID: 2007408-007

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	7/11/2020 5:55:57 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 3:59:11 AM	53614
Surr: BFB	94.2	70-130		%Rec	1	7/12/2020 3:59:11 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/11/2020 1:24:53 PM	53629
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 1:24:53 PM	53629
Surr: DNOP	29.7	55.1-146	S	%Rec	1	7/11/2020 1:24:53 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 3:59:11 AM	53614
Toluene	ND	0.048		mg/Kg	1	7/12/2020 3:59:11 AM	53614
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 3:59:11 AM	53614
Xylenes, Total	ND	0.095		mg/Kg	1	7/12/2020 3:59:11 AM	53614
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/12/2020 3:59:11 AM	53614
Surr: 4-Bromofluorobenzene	92.0	70-130		%Rec	1	7/12/2020 3:59:11 AM	53614
Surr: Dibromofluoromethane	109	70-130		%Rec	1	7/12/2020 3:59:11 AM	53614
Surr: Toluene-d8	102	70-130		%Rec	1	7/12/2020 3:59:11 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S5, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:05:00 PM

Lab ID: 2007408-008

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	64	60		mg/Kg	20	7/11/2020 6:08:22 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Surr: BFB	96.4	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2020 1:49:46 PM	53629
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2020 1:49:46 PM	53629
Surr: DNOP	47.2	55.1-146	S	%Rec	1	7/11/2020 1:49:46 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 4:27:38 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
Surr: 4-Bromofluorobenzene	93.1	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
Surr: Dibromofluoromethane	110	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614
Surr: Toluene-d8	105	70-130		%Rec	1	7/12/2020 4:27:38 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S6, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:10:00 PM

Lab ID: 2007408-009

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1200	60		mg/Kg	20	7/11/2020 6:45:34 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Surr: BFB	94.2	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/11/2020 2:14:39 PM	53629
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/11/2020 2:14:39 PM	53629
Surr: DNOP	30.9	55.1-146	S	%Rec	1	7/11/2020 2:14:39 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 4:56:06 AM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614
Surr: Toluene-d8	102	70-130		%Rec	1	7/12/2020 4:56:06 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S7, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:15:00 PM

Lab ID: 2007408-010

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	7/11/2020 6:57:58 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/12/2020 5:25:03 AM	53614
Surr: BFB	92.3	70-130		%Rec	1	7/12/2020 5:25:03 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/11/2020 2:39:45 PM	53629
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 2:39:45 PM	53629
Surr: DNOP	44.4	55.1-146	S	%Rec	1	7/11/2020 2:39:45 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 5:25:03 AM	53614
Toluene	ND	0.047		mg/Kg	1	7/12/2020 5:25:03 AM	53614
Ethylbenzene	ND	0.047		mg/Kg	1	7/12/2020 5:25:03 AM	53614
Xylenes, Total	ND	0.095		mg/Kg	1	7/12/2020 5:25:03 AM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/12/2020 5:25:03 AM	53614
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	7/12/2020 5:25:03 AM	53614
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/12/2020 5:25:03 AM	53614
Surr: Toluene-d8	99.0	70-130		%Rec	1	7/12/2020 5:25:03 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S7, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:20:00 PM

Lab ID: 2007408-011

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	7/11/2020 7:10:22 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 5:53:47 AM	53614
Surr: BFB	94.8	70-130		%Rec	1	7/12/2020 5:53:47 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/11/2020 3:04:50 PM	53629
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/11/2020 3:04:50 PM	53629
Surr: DNOP	71.9	55.1-146		%Rec	1	7/11/2020 3:04:50 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 5:53:47 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 5:53:47 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 5:53:47 AM	53614
Xylenes, Total	ND	0.099		mg/Kg	1	7/12/2020 5:53:47 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: Dibromofluoromethane	114	70-130		%Rec	1	7/12/2020 5:53:47 AM	53614
Surr: Toluene-d8	101	70-130		%Rec	1	7/12/2020 5:53:47 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S8, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:25:00 PM

Lab ID: 2007408-012

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	2300	60		mg/Kg	20	7/11/2020 7:22:47 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 6:22:15 AM	53614
Surr: BFB	95.8	70-130		%Rec	1	7/12/2020 6:22:15 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/11/2020 3:54:54 PM	53629
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/11/2020 3:54:54 PM	53629
Surr: DNOP	57.8	55.1-146		%Rec	1	7/11/2020 3:54:54 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 6:22:15 AM	53614
Toluene	ND	0.048		mg/Kg	1	7/12/2020 6:22:15 AM	53614
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 6:22:15 AM	53614
Xylenes, Total	ND	0.096		mg/Kg	1	7/12/2020 6:22:15 AM	53614
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	7/12/2020 6:22:15 AM	53614
Surr: 4-Bromofluorobenzene	93.9	70-130		%Rec	1	7/12/2020 6:22:15 AM	53614
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/12/2020 6:22:15 AM	53614
Surr: Toluene-d8	106	70-130		%Rec	1	7/12/2020 6:22:15 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S8, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:30:00 PM

Lab ID: 2007408-013

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	200	61		mg/Kg	20	7/11/2020 7:35:12 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 6:50:45 AM	53614
Surr: BFB	95.3	70-130		%Rec	1	7/12/2020 6:50:45 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/11/2020 4:19:36 PM	53629
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2020 4:19:36 PM	53629
Surr: DNOP	86.4	55.1-146		%Rec	1	7/11/2020 4:19:36 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/12/2020 6:50:45 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 6:50:45 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 6:50:45 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 6:50:45 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: 4-Bromofluorobenzene	93.1	70-130		%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/12/2020 6:50:45 AM	53614
Surr: Toluene-d8	104	70-130		%Rec	1	7/12/2020 6:50:45 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S9, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:35:00 PM

Lab ID: 2007408-014

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	4100	150		mg/Kg	50	7/13/2020 4:18:59 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Surr: BFB	96.4	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	20000	490		mg/Kg	50	7/11/2020 4:44:23 PM	53629
Motor Oil Range Organics (MRO)	12000	2500		mg/Kg	50	7/11/2020 4:44:23 PM	53629
Surr: DNOP	0	55.1-146	S	%Rec	50	7/11/2020 4:44:23 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Toluene	ND	0.25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Ethylbenzene	ND	0.25	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Xylenes, Total	ND	0.49	D	mg/Kg	5	7/12/2020 7:19:14 AM	53614
Surr: 1,2-Dichloroethane-d4	104	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: 4-Bromofluorobenzene	73.9	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: Dibromofluoromethane	106	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614
Surr: Toluene-d8	104	70-130	D	%Rec	5	7/12/2020 7:19:14 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S9,1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:40:00 PM

Lab ID: 2007408-015

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	430	59		mg/Kg	20	7/11/2020 8:00:00 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/12/2020 7:47:47 AM	53614
Surr: BFB	92.4	70-130		%Rec	1	7/12/2020 7:47:47 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	240	9.8		mg/Kg	1	7/11/2020 5:09:07 PM	53629
Motor Oil Range Organics (MRO)	190	49		mg/Kg	1	7/11/2020 5:09:07 PM	53629
Surr: DNOP	112	55.1-146		%Rec	1	7/11/2020 5:09:07 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 7:47:47 AM	53614
Toluene	ND	0.049		mg/Kg	1	7/12/2020 7:47:47 AM	53614
Ethylbenzene	ND	0.049		mg/Kg	1	7/12/2020 7:47:47 AM	53614
Xylenes, Total	ND	0.098		mg/Kg	1	7/12/2020 7:47:47 AM	53614
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	7/12/2020 7:47:47 AM	53614
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	7/12/2020 7:47:47 AM	53614
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/12/2020 7:47:47 AM	53614
Surr: Toluene-d8	101	70-130		%Rec	1	7/12/2020 7:47:47 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S10, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:45:00 PM

Lab ID: 2007408-016

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	2600	150		mg/Kg	50	7/13/2020 4:31:23 PM	53651
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Surr: BFB	95.2	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	2700	190		mg/Kg	20	7/11/2020 5:34:21 PM	53629
Motor Oil Range Organics (MRO)	3200	930		mg/Kg	20	7/11/2020 5:34:21 PM	53629
Surr: DNOP	0	55.1-146	S	%Rec	20	7/11/2020 5:34:21 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Toluene	ND	0.23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Ethylbenzene	ND	0.23	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Xylenes, Total	ND	0.47	D	mg/Kg	5	7/12/2020 8:16:16 AM	53614
Surr: 1,2-Dichloroethane-d4	107	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: 4-Bromofluorobenzene	95.7	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: Dibromofluoromethane	113	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614
Surr: Toluene-d8	103	70-130	D	%Rec	5	7/12/2020 8:16:16 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S11, 0"-6"

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:50:00 PM

Lab ID: 2007408-017

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	250	60		mg/Kg	20	7/13/2020 11:46:02 AM	53665
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	24	D	mg/Kg	5	7/12/2020 8:44:46 AM	53614
Surr: BFB	95.7	70-130	D	%Rec	5	7/12/2020 8:44:46 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	3500	98		mg/Kg	10	7/11/2020 5:59:39 PM	53629
Motor Oil Range Organics (MRO)	3600	490		mg/Kg	10	7/11/2020 5:59:39 PM	53629
Surr: DNOP	0	55.1-146	S	%Rec	10	7/11/2020 5:59:39 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.12	D	mg/Kg	5	7/12/2020 8:44:46 AM	53614
Toluene	ND	0.24	D	mg/Kg	5	7/12/2020 8:44:46 AM	53614
Ethylbenzene	ND	0.24	D	mg/Kg	5	7/12/2020 8:44:46 AM	53614
Xylenes, Total	ND	0.49	D	mg/Kg	5	7/12/2020 8:44:46 AM	53614
Surr: 1,2-Dichloroethane-d4	103	70-130	D	%Rec	5	7/12/2020 8:44:46 AM	53614
Surr: 4-Bromofluorobenzene	90.5	70-130	D	%Rec	5	7/12/2020 8:44:46 AM	53614
Surr: Dibromofluoromethane	104	70-130	D	%Rec	5	7/12/2020 8:44:46 AM	53614
Surr: Toluene-d8	106	70-130	D	%Rec	5	7/12/2020 8:44:46 AM	53614

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

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

Analytical Report

Lab Order **2007408**

Date Reported: **7/16/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S11, 1'

Project: Emerald PWU 20 1H

Collection Date: 7/7/2020 4:55:00 PM

Lab ID: 2007408-018

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	460	60		mg/Kg	20	7/13/2020 11:58:26 AM	53665
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/12/2020 9:13:15 AM	53614
Surr: BFB	97.7	70-130		%Rec	1	7/12/2020 9:13:15 AM	53614
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	74	10		mg/Kg	1	7/11/2020 6:24:55 PM	53629
Motor Oil Range Organics (MRO)	90	50		mg/Kg	1	7/11/2020 6:24:55 PM	53629
Surr: DNOP	109	55.1-146		%Rec	1	7/11/2020 6:24:55 PM	53629
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/12/2020 9:13:15 AM	53614
Toluene	ND	0.048		mg/Kg	1	7/12/2020 9:13:15 AM	53614
Ethylbenzene	ND	0.048		mg/Kg	1	7/12/2020 9:13:15 AM	53614
Xylenes, Total	ND	0.096		mg/Kg	1	7/12/2020 9:13:15 AM	53614
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/12/2020 9:13:15 AM	53614
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	7/12/2020 9:13:15 AM	53614
Surr: Dibromofluoromethane	107	70-130		%Rec	1	7/12/2020 9:13:15 AM	53614
Surr: Toluene-d8	107	70-130		%Rec	1	7/12/2020 9:13:15 AM	53614

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: MB-53651	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53651	RunNo: 70283								
Prep Date: 7/11/2020	Analysis Date: 7/11/2020	SeqNo: 2443142	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53651	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53651	RunNo: 70283								
Prep Date: 7/11/2020	Analysis Date: 7/11/2020	SeqNo: 2443143	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

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: ics	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			

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#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

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

Sample ID: LCS-53629	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53629	RunNo: 70238								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442221	Units: mg/Kg							
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: 2007408-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S1, 0"-6"	Batch ID: 53629	RunNo: 70238								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442223	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.4	47.13	0	92.4	47.4	136			
Surr: DNOP	4.5		4.713		95.2	55.1	146			

Sample ID: 2007408-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S1, 0"-6"	Batch ID: 53629	RunNo: 70238								
Prep Date: 7/10/2020	Analysis Date: 7/11/2020	SeqNo: 2442224	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.7	48.40	0	92.4	47.4	136	2.60	43.4	
Surr: DNOP	4.4		4.840		91.6	55.1	146	0	0	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: mb-53614	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/11/2020	SeqNo: 2442043	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	0.53		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: ics-53614	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/11/2020	SeqNo: 2442044	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	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			

Sample ID: 2007408-001ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: S1, 0"-6"	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/11/2020	SeqNo: 2442046	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	116	71.1	115			S
Toluene	1.0	0.049	0.9814	0	106	79.6	132			
Ethylbenzene	1.1	0.049	0.9814	0	107	83.8	134			
Xylenes, Total	3.3	0.098	2.944	0	113	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.52		0.4907		107	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.4907		89.4	70	130			
Surr: Dibromofluoromethane	0.55		0.4907		111	70	130			
Surr: Toluene-d8	0.48		0.4907		98.0	70	130			

Qualifiers:

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

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

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC**Project:** Emerald PWU 20 1H

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9533	0	118	71.1	115	0.906	20	S
Toluene	1.0	0.048	0.9533	0	106	79.6	132	3.28	20	
Ethylbenzene	1.1	0.048	0.9533	0	111	83.8	134	0.748	20	
Xylenes, Total	3.4	0.095	2.860	0	117	82.4	132	0.974	20	
Surr: 1,2-Dichloroethane-d4	0.50		0.4766		106	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4766		101	70	130	0	0	
Surr: Dibromofluoromethane	0.55		0.4766		115	70	130	0	0	
Surr: Toluene-d8	0.47		0.4766		98.8	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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

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

Sample ID: lcs-53614	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/11/2020	SeqNo: 2442072	Units: mg/Kg							
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: 2007408-002ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: S1, 1'	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/11/2020	SeqNo: 2442076	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.73	0	84.3	70	130			
Surr: BFB	480		494.6		97.1	70	130			

Sample ID: 2007408-002amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: S1, 1'	Batch ID: 53614	RunNo: 70265								
Prep Date: 7/9/2020	Analysis Date: 7/12/2020	SeqNo: 2442077	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.92	0	86.0	70	130	1.38	20	
Surr: BFB	470		478.5		97.3	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: 2007408 RcptNo: 1

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

Completed By: Juan Rojas 7/9/2020 10:12:55 AM *Juan Rojas*

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

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *JR 7/9/20*

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.7	Good				

Chain-of-Custody Record

Client: Pima Environmental

Mailing Address: 1601 N. Turner Ste 500
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 Day

Standard Rush

Project Name: Emerald Pwuzo IH

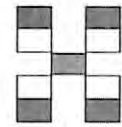
Project #: 20715188

Project Manager: Chris Jones

Sampler:
 On Ice: Yes No

of Coolers: 7 + 12

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



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Date	Time	Matrix	Sample 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 ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
7/7/20	3:30	Soil	S1, 0"-6"	Glass	Ice	2007408-001											
	3:35		S1, 1'			-002											
	3:40		S2, 0"-6"			-003											
	3:45		S3, 0"-6"			-004											
	3:50		S4, 0"-6"			-005											
	3:55		S4, 1'			-006											
	4:00		S5, 0"-6"			-007											
	4:05		S5, 1'			-008											
	4:10		S6, 0"-6"			-009											
	4:15		S7, 0"-6"			-010											
	4:20		S7, 1'			-011											
	4:25		S8, 0"-6"			-012											

Date: 7/8/20 Time: 4:33 Relinquished by: Colton Ashcraft

Date: 7/8/20 Time: 1900 Relinquished by: Cummings

Received by: Cummings Via: _____ Date: 7/8/20 Time: 1540

Received by: [Signature] Via: courier Date: 7/9/20 Time: 9:18

Remarks: Bill to Devon

Chain-of-Custody Record

Client: Pima Environmental

Mailing Address: 1601 N. Turner Ste 500
Hobbs, NM 88240

Phone #: 575-631-6977

email or Fax#: Chris@PimaEnv.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: Emerald PWW 20 IH

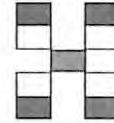
Project #: 20715188

Project Manager: Chris Jones

Sampler:
On Ice: Yes No

of Coolers: 2

Cooler Temp (including CF): 0.8-0.1=0.7(°C)



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Date	Time	Matrix	Sample 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 ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
07/7/20	4:30	Soil	S8, 1'	Glass	Ice	-03											
	4:35		S9, 0"-6"			-04											
	4:40		S9, 0'1"			-05											
	4:45		S10, 0"-6"			-06											
	4:50		S11, 0"-6"			-07											
	4:55		S11, 1'			-08											

Date: <u>7/8/20</u>	Time: <u>4:33</u>	Relinquished by: <u>Colton Ashcraft</u>	Received by: <u>Mumming</u>	Via: _____	Date: <u>7/8/20</u>	Time: <u>1540</u>
Date: <u>7/8/20</u>	Time: <u>1900</u>	Relinquished by: <u>Mumming</u>	Received by: <u>Pat Turner</u>	Via: _____	Date: <u>7/9/20</u>	Time: <u>9:18</u>

Remarks: Bill to Devon

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.



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

November 25, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: EMERALD 20 PWV #1H

Enclosed are the results of analyses for samples received by the laboratory on 11/23/20 8:05.

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/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 15 - 1' (H003091-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6		
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6		
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3		
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6		
Total BTEX	<0.300	0.300	11/23/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	11/23/2020	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58		
DRO >C10-C28*	1350	10.0	11/23/2020	ND	243	122	200	0.638		
EXT DRO >C28-C36	272	10.0	11/23/2020	ND						

Surrogate: 1-Chlorooctane 88.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 15 - 2' (H003091-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	11/23/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	204	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	53.2	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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*=Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 15 - 3' (H003091-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	11/23/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	50.8	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.1 % 42.2-156

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* = Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 16 - 1' (H003091-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	11/23/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	13.2	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 97.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.9 % 42.2-156

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* = Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 16 - 2' (H003091-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.8 % 42.2-156

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* = Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 16 - 3' (H003091-06)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	70.1	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	15.8	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.8 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 17 - 1' (H003091-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.78	88.9	2.00	11.6	
Toluene*	<0.050	0.050	11/23/2020	ND	1.70	84.9	2.00	11.6	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.74	87.1	2.00	11.3	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.05	84.1	6.00	10.6	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.2 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 17 - 2' (H003091-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 17 - 3' (H003091-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.0 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 18 - 1' (H003091-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 100 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.5 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 18 - 2' (H003091-11)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 95.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.2 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 18 - 3' (H003091-12)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	<10.0	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	<10.0	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 97.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.1 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 19 - 1' (H003091-13)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	1.09	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	1.11	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 246 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	121	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	4640	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	814	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 138 % 44.3-144

Surrogate: 1-Chlorooctadecane 214 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 19 - 2' (H003091-14)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	12.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	904	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	151	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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*=Accredited Analyte

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 19 - 3' (H003091-15)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	418	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	80.9	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 118 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 20 - 1' (H003091-16)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	GC-NC
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 175 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	35.6	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	5850	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	1120	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 113 % 44.3-144

Surrogate: 1-Chlorooctadecane 270 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 20 - 2' (H003091-17)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	83.9	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	18.2	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 20 - 3' (H003091-18)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	290	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	55.9	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 97.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 21 - 1' (H003091-19)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	123	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	35.6	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 90.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.3 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 22 - 1' (H003091-20)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/23/2020	ND	240	120	200	1.58	
DRO >C10-C28*	44.4	10.0	11/23/2020	ND	243	122	200	0.638	
EXT DRO >C28-C36	10.6	10.0	11/23/2020	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 22 - 2' (H003091-21)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/24/2020	ND	246	123	200	8.82	
DRO >C10-C28*	22.0	10.0	11/24/2020	ND	249	125	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	11/24/2020	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.0 % 42.2-156

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



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/23/2020	Sampling Date:	11/19/2020
Reported:	11/25/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWV #1H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 22 - 3' (H003091-22)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2020	ND	1.98	99.1	2.00	2.74	
Toluene*	<0.050	0.050	11/23/2020	ND	1.89	94.4	2.00	3.24	
Ethylbenzene*	<0.050	0.050	11/23/2020	ND	1.96	98.2	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/23/2020	ND	5.64	94.0	6.00	2.13	
Total BTEX	<0.300	0.300	11/23/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/23/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/24/2020	ND	246	123	200	8.82	
DRO >C10-C28*	11.1	10.0	11/24/2020	ND	249	125	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	11/24/2020	ND					

Surrogate: 1-Chlorooctane 97.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.2 % 42.2-156

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* = Accredited Analyte

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



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
- 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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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <i>Prima Environmental</i>		BILL TO		ANALYSIS REQUEST											
Project Manager: <i>Chris Jones</i>		P.O. #: <i>20715745</i>													
Address: <i>1601 N. Turner</i>		Company: <i>Devon</i>													
City: <i>Hobbs</i> State: <i>NM</i> Zip: <i>88240</i>		Attn: <i>Tom Bynum</i>													
Phone #: <i>575-631-6977</i> Fax #:		Address:													
Project #: <i>3</i> Project Owner: <i>Devon</i>		City:													
Project Name: <i>Emerald 20 Pw 114</i>		State: Zip:													
Project Location: <i>Eddy</i>		Phone #:													
Sampler Name: <i>Robert Lopez</i>		Fax #:													
FOR LAB USE ONLY															
Lab I.D.	Sample I.D.	(GIRAB OR (C)OMP. # CONTAINERS	MATRIX							PRESERV.	SAMPLING				
			GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE ICE / COOL OTHER :	DATE	TIME									
<i>H003091</i>															
<i>1</i>	<i>5-15-1'</i>				<i>11/19/20</i>	<i>2:00</i>	<i>Chloride</i>								
<i>2</i>	<i>5-15-2'</i>					<i>2:10</i>	<i>BTEX</i>								
<i>3</i>	<i>5-15-3'</i>					<i>2:20</i>	<i>TPH</i>								
<i>4</i>	<i>5-16-1'</i>					<i>2:30</i>									
<i>5</i>	<i>5-16-2'</i>					<i>2:40</i>									
<i>6</i>	<i>5-16-3'</i>					<i>2:50</i>									
<i>7</i>	<i>5-17-1'</i>					<i>3:00</i>									
<i>8</i>	<i>5-17-2'</i>					<i>3:10</i>									
<i>9</i>	<i>5-17-3'</i>					<i>3:20</i>									
<i>10</i>	<i>5-18-1'</i>					<i>3:30</i>									

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Relinquished By: <i>[Signature]</i>	Date: <i>11-23-20</i>	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: <i>4:51</i>		All Results are emailed. Please provide Email address:
Relinquished By:	Date: <i>11-23-20</i>	Received By: <i>Jamara Alda Byrd</i>	REMARKS:
	Time: <i>0805</i>		
Delivered By: (Circle One)	Observed Temp. °C <i>-6.5</i>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	CHECKED BY: (Initials) <i>TO</i>	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
			Thermometer ID <i>#97-#113 TO</i>
			Correction Factor <i>+0.4°C 11/23/20</i>

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabsnm.com



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <i>Pima Environmental</i>		BILL TO		ANALYSIS REQUEST																																																																																																																																																																																								
Project Manager: <i>Chris Jones</i>		P.O. #: <i>20719 745</i>		<table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																																																																																																								
Address: <i>1601 N. Turner</i>		Company: <i>Devon</i>																																																																																																																																																																																										
City: <i>Hobbs</i> State: <i>AZ</i> Zip: <i>88240</i>		Attn: <i>Tom Byrnes</i>																																																																																																																																																																																										
Phone #: <i>575-631-6977</i> Fax #:		Address:																																																																																																																																																																																										
Project #: <i>3</i> Project Owner: <i>Devon</i>		City:																																																																																																																																																																																										
Project Name: <i>Emerald 20 PWU 1H</i>		State: Zip:																																																																																																																																																																																										
Project Location: <i>Eddy</i>		Phone #:																																																																																																																																																																																										
Sampler Name: <i>Robert Casper</i>		Fax #:																																																																																																																																																																																										

FOR LAB USE ONLY		C (GIRAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.			SAMPLING		DATE	TIME	TPT	BTX	Chloride
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:						
<i>H003091</i>																	
<i>11</i>	<i>S-18-2'</i>			X					X			<i>11-19-20</i>	<i>3:40</i>				
<i>12</i>	<i>S-18-3'</i>												<i>3:45</i>				
<i>13</i>	<i>S-19-1'</i>												<i>3:50</i>				
<i>14</i>	<i>S-19-2'</i>												<i>3:55</i>				
<i>15</i>	<i>S-19-3'</i>												<i>4:00</i>				
<i>16</i>	<i>S-20-1'</i>												<i>4:05</i>				
<i>17</i>	<i>S-20-2'</i>												<i>4:10</i>				
<i>18</i>	<i>S-20-3'</i>												<i>4:20</i>				
<i>19</i>	<i>S-21-1'</i>												<i>4:25</i>				
<i>20</i>	<i>S-22-1'</i>												<i>4:30</i>				

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Relinquished By: <i>[Signature]</i>	Date: <i>11-28-20</i>	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: <i>8:58</i>		All Results are emailed. Please provide Email address:
Relinquished By:	Date: <i>11-23-20</i>	Received By: <i>[Signature]</i>	REMARKS:
	Time: <i>0805</i>		
Delivered By: (Circle One)	Observed Temp. °C <i>-6.5</i>	Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Checked By: (Initials) <i>TO</i>	Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No
			Thermometer ID #97 <i>#113 TO</i>
			Correction Factor +0.4 °C <i>11/23/20</i>

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <i>Prima Environmental</i>		BILL TO		ANALYSIS REQUEST												
Project Manager: <i>Chris Jones</i>		P.O. #: <i>20715745</i>														
Address: <i>1601 N. Turner</i>		Company: <i>Deron</i>														
City: <i>Hobbs</i> State: <i>AZ</i> Zip: <i>88240</i>		Attn: <i>Tom Bynum</i>														
Phone #: <i>575-631-6977</i> Fax #:		Address:														
Project #: <i>3</i> Project Owner:		City:														
Project Name: <i>Emerald 20 PWA 1H</i>		State: Zip:														
Project Location: <i>Eddy</i>		Phone #:														
Sampler Name: <i>Robert Casper</i>		Fax #:														
FOR LAB USE ONLY		# CONTAINERS	MATRIX					PRESERV.		SAMPLING		DATE	TIME	BTEX	Chloride	TPH
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE	ICE / COOL	OTHER :					
<i>H003091</i>																
<i>21</i>	<i>5-22-21</i>	<i>2</i>		<i>X</i>				<i>X</i>			<i>11-17-20</i>	<i>9:40</i>	<i>+</i>	<i>+</i>	<i>+</i>	
<i>22</i>	<i>5-22-31</i>	<i>2</i>		<i>X</i>				<i>X</i>			<i>1</i>	<i>6:50</i>	<i>+</i>	<i>+</i>	<i>+</i>	

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Relinquished By: <i>[Signature]</i>	Date: <i>11-23-20</i>	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: <i>8:58</i>		All Results are emailed. Please provide Email address:
Relinquished By:	Date: <i>11-23-20</i>	Received By: <i>[Signature]</i>	REMARKS:
	Time: <i>0805</i>		
Delivered By: (Circle One)	Observed Temp. °C <i>-6.5</i>	Sample Condition	Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
		Checked By: <i>T.O.</i>	Thermometer ID <i>#07-#113 TO</i>
			Correction Factor <i>+0.5 °C</i>

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

December 03, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: EMERALD 20 PWU #1H

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/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 1 W - BOTTOM (H003128-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 120 % 44.3-144

Surrogate: 1-Chlorooctadecane 125 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 1 W - SIDE (H003128-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 118 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 5 S - BOTTOM (H003128-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 5 S - SIDE (H003128-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 113 % 44.3-144

Surrogate: 1-Chlorooctadecane 118 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 6 S - SIDE (H003128-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 118 % 44.3-144

Surrogate: 1-Chlorooctadecane 123 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 6 S - BOTTOM (H003128-06)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 13 E - SIDE (H003128-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-144

Surrogate: 1-Chlorooctadecane 124 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 13 E - BOTTOM (H003128-08)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41		
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58		
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1		
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND						

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 12 N - BOTTOM (H003128-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-144

Surrogate: 1-Chlorooctadecane 122 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 12 N - SIDE (H003128-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41	
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 120 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 11 W - BOTTOM (H003128-11)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	1.96	98.2	2.00	4.41		
Toluene*	<0.050	0.050	12/01/2020	ND	1.89	94.3	2.00	4.60		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	1.97	98.7	2.00	4.30		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/01/2020	ND	208	104	200	5.58		
DRO >C10-C28*	<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1		
EXT DRO >C28-C36	<10.0	10.0	12/01/2020	ND						

Surrogate: 1-Chlorooctane 109 % 44.3-144

Surrogate: 1-Chlorooctadecane 116 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 11 W - SIDE (H003128-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68		
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03		
DRO >C10-C28*	20.9	10.0	12/02/2020	ND	211	106	200	1.88		
EXT DRO >C28-C36	23.1	10.0	12/02/2020	ND						

Surrogate: 1-Chlorooctane 97.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 14 S - SIDE (H003128-13)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 95.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 14 S - BOTTOM (H003128-14)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 23 - 1' (H003128-15)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68		
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03		
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88		
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND						

Surrogate: 1-Chlorooctane 97.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 23 - 2' (H003128-16)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68		
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03		
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88		
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND						

Surrogate: 1-Chlorooctane 86.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 23 - 3' (H003128-17)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 87.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 24 - 1' (H003128-18)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 92.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 24 - 2' (H003128-19)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 89.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 24 - 3' (H003128-20)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/01/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 94.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 25 - 1' (H003128-21)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	12/01/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 90.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 25 - 2' (H003128-22)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68		
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56		
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60		
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43		
Total BTEX	<0.300	0.300	12/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/01/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03		
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88		
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND						

Surrogate: 1-Chlorooctane 87.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	11/30/2020	Sampling Date:	11/25/2020
Reported:	12/03/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 25 - 3' (H003128-23)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/01/2020	ND	2.10	105	2.00	3.68	
Toluene*	<0.050	0.050	12/01/2020	ND	2.02	101	2.00	3.56	
Ethylbenzene*	<0.050	0.050	12/01/2020	ND	2.09	104	2.00	3.60	
Total Xylenes*	<0.150	0.150	12/01/2020	ND	5.96	99.4	6.00	3.43	
Total BTEX	<0.300	0.300	12/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/01/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2020	ND	211	105	200	4.03	
DRO >C10-C28*	<10.0	10.0	12/02/2020	ND	211	106	200	1.88	
EXT DRO >C28-C36	<10.0	10.0	12/02/2020	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.4 % 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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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: Pima Environmental
Project Manager: Chris Jones
Address: 1601 N. Turner St. 500
City: Hobbs State: NM Zip: 88240
Phone #: 575-964-4470 Fax #:
Project #: Emerald 3 Project Owner:
Project Name: Emerald 20 PWU 1H
Project Location: Eddy Co NM
Sampler Name: Robert Carper

Table with columns: Lab I.D., Sample I.D., (G)RAB OR (C)OMP., # CONTAINERS, MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE / COOL, OTHER), SAMPLING (DATE, TIME), and analysis results for TPH, BTEX, Chloride.

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.

Relinquished By: [Signature] Date: 11-30-20 Received By: [Signature] Date: 12-3-20
Delivered By: (Circle One) Observed Temp. °C 12.7 Sample Condition Cool Intact [X] Yes [] No
Turnaround Time: Standard [] Rush [X] Bacteria (only) Sample Condition Cool Intact Observed Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: PIMA Environmental
Project Manager: Chris Jones
Address: 1601 N. Turner St. 500
City: Hobbs State: NM Zip: 88240
Phone #: 575-964-7740 Fax #:
Project #: 3 Project Owner:
Project Name: Emerald 20 Pawl 1H
Project Location: Eddy Co NM
Sampler Name: Robert Casper
BILL TO: P.O. #20715188
Company: Devon
Attn: Tom Bynum
Address:
City:
State: Zip:
Phone #:
Fax #:

Table with columns: Lab I.D., Sample I.D., (G)RAB OR (C)OMP., # CONTAINERS, MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE / COOL, OTHER), SAMPLING (DATE, TIME). Includes handwritten entries for samples 11-20 and chemical notations TPH, BTEX, Chloride.

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.

Relinquished By: [Signature] Date: 11-30-20 Time: 12:30
Received By: [Signature] Date: [Blank] Time: [Blank]
Delivered By: (Circle One) Observed Temp. °C 12.7
Sample Condition Cool Intact [X] Yes [] No
CHECKED BY: (Initials) T.O.
Turnaround Time: Standard [X] Rush []
Bacteria (only) Sample Condition Cool Intact [X] Yes [] No

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <i>Pima Environmental</i>		BILL TO		ANALYSIS REQUEST					
Project Manager: <i>Chris Jones</i>		P.O. #: <i>20715188</i>							
Address: <i>1601 N Turner St. 500</i>		Company: <i>Devon</i>							
City: <i>Hobbs</i> State: <i>NM</i> Zip: <i>88240</i>		Attn: <i>Tom Bynam</i>							
Phone #: <i>575-964-7740</i> Fax #:		Address:							
Project #: <i>3</i> Project Owner:		City:							
Project Name: <i>Emerald 20 PWUL 14</i>		State: Zip:							
Project Location: <i>Eddy Co NM</i>		Phone #:							
Sampler Name: <i>Robert Carper</i>		Fax #:							

FOR LAB USE ONLY		# CONTAINERS	MATRIX					PRESERV.	SAMPLING		TPH	BTEX	Chloride					
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL				OTHER	DATE	TIME		
<i>H003128</i>		<i>G</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<i>11-25-20</i>	<i>11:00</i>						
<i>21</i>	<i>S-25-1'</i>											<i>11:05</i>						
<i>22</i>	<i>S-25-2'</i>											<i>11:10</i>						
<i>23</i>	<i>S-25-3'</i>											<i>11:15</i>						
												<i>11:20</i>						
												<i>11:25</i>						
												<i>11:30</i>						
												<i>11:35</i>						
												<i>11:40</i>						
												<i>11:45</i>						

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

FORM-006 R 3.1 06/04/20

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

December 14, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: EMERALD 20 PWU #1H

Enclosed are the results of analyses for samples received by the laboratory on 12/10/20 16:55.

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/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 6 S - BOTTOM (H003237-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/14/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35	
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05	
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND					

Surrogate: 1-Chlorooctane 87.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 6 S - SIDE (H003237-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05	
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59	
Total BTEX	<0.300	0.300	12/11/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35	
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05	
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND					

Surrogate: 1-Chlorooctane 84.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 9 E - SIDE (H003237-03)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05		
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/11/2020	ND	244	122	200	1.35		
DRO >C10-C28*	<10.0	10.0	12/11/2020	ND	235	118	200	1.05		
EXT DRO >C28-C36	<10.0	10.0	12/11/2020	ND						

Surrogate: 1-Chlorooctane 87.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 9 E - BOTTOM (H003237-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05		
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 85.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 22 N - SIDE (H003237-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05		
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 91.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 22 N - BOTTOM (H003237-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05		
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 84.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 80.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 24 N - SIDE (H003237-07)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	1.93	96.6	2.00	8.05		
Toluene*	<0.050	0.050	12/11/2020	ND	1.85	92.4	2.00	7.75		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	1.92	95.8	2.00	8.56		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.47	91.1	6.00	8.59		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 88.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 24 N - BOTTOM (H003237-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/14/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					

Surrogate: 1-Chlorooctane 80.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 75.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 25 E - SIDE (H003237-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96		
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 85.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 25 E - BOTTOM (H003237-10)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96		
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 92.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 26 S - SIDE (H003237-11)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96	
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88	
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69	
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29	
Total BTEX	<0.300	0.300	12/11/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/14/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114	
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43	
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND					

Surrogate: 1-Chlorooctane 84.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 78.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 CHRIS JONES
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	12/10/2020	Sampling Date:	12/10/2020
Reported:	12/14/2020	Sampling Type:	Soil
Project Name:	EMERALD 20 PWU #1H	Sampling Condition:	** (See Notes)
Project Number:	3	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 26 S - BOTTOM (H003237-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2020	ND	2.02	101	2.00	5.96		
Toluene*	<0.050	0.050	12/11/2020	ND	1.92	96.0	2.00	5.88		
Ethylbenzene*	<0.050	0.050	12/11/2020	ND	2.01	101	2.00	5.69		
Total Xylenes*	<0.150	0.150	12/11/2020	ND	5.76	96.0	6.00	5.29		
Total BTEX	<0.300	0.300	12/11/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/14/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/12/2020	ND	248	124	200	0.114		
DRO >C10-C28*	<10.0	10.0	12/12/2020	ND	241	120	200	1.43		
EXT DRO >C28-C36	<10.0	10.0	12/12/2020	ND						

Surrogate: 1-Chlorooctane 86.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 80.4 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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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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

Company Name: <i>Pima Environmentl</i>				BILL TO				ANALYSIS REQUEST											
Project Manager: <i>Chris Jones</i>				P.O. #: <i>20715188</i>															
Address: <i>1601 N. Turner Ste 500</i>				Company: <i>Devon</i>															
City: <i>Hobbs</i> State: <i>NM</i> Zip: <i>88280</i>				Attn: <i>Wes Matthews</i>															
Phone #: <i>964-7740</i> Fax #:				Address:															
Project #: <i>3</i> Project Owner: <i>Devon</i>				City:															
Project Name: <i>Emerald 20 PWH 1H</i>				State: Zip:															
Project Location: <i>Eddy Co NM</i>				Phone #:															
Sampler Name: <i>Robert Carper</i>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		# CONTAINERS	MATRIX				PRESERV.			SAMPLING							
				(G/RAB OR (C)OMP.	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME				
<i>H003237</i>				<i>C</i>			<i>X</i>							<i>12/10/20</i>	<i>9:00</i>	<i>X</i>	<i>X</i>	<i>C</i>	
<i>1</i>		<i>S-6S - Bottom</i>													<i>9:10</i>				
<i>2</i>		<i>S-6S - Side</i>													<i>9:20</i>				
<i>3</i>		<i>S-9E - side</i>													<i>9:30</i>				
<i>4</i>		<i>S-9E - Bottom</i>													<i>9:40</i>				
<i>5</i>		<i>S-22N - side</i>													<i>9:58</i>				
<i>6</i>		<i>S-22N - Bottom</i>													<i>10:00</i>				
<i>7</i>		<i>S-24N - side</i>													<i>10:16</i>				
<i>8</i>		<i>S-24N - Bottom</i>													<i>10:20</i>				
<i>9</i>		<i>S-25E - side</i>													<i>10:30</i>				
<i>10</i>		<i>S-25E - Bottom</i>																	

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Relinquished By: <i>[Signature]</i>		Date: <i>12-10-20</i>	Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <i>4:30</i>		Date: <i>12-5-20</i>	Time:		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS:	
Time:		Date:	Time:			
Delivered By: (Circle One)	Observed Temp. °C <i>13.7</i>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>TO.</i>	Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	<input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Cool Intact	Sample Condition Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113 Correction Factor None	<input type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temp. °C

FORM-006 R 3.1 06/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

May 06, 2021

TOM BYNUM

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: EMERALD PWV 20

Enclosed are the results of analyses for samples received by the laboratory on 05/04/21 8:20.

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/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 TOM BYNUM
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	05/04/2021	Sampling Date:	05/03/2021
Reported:	05/06/2021	Sampling Type:	Soil
Project Name:	EMERALD PWV 20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON		

Sample ID: S 2 - 2' (H211127-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/04/2021	ND	2.03	102	2.00	9.39		
Toluene*	<0.050	0.050	05/04/2021	ND	1.98	98.8	2.00	9.71		
Ethylbenzene*	<0.050	0.050	05/04/2021	ND	1.92	95.8	2.00	10.1		
Total Xylenes*	<0.150	0.150	05/04/2021	ND	5.67	94.5	6.00	10.1		
Total BTEX	<0.300	0.300	05/04/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 80.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.6 % 38.9-142

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 TOM BYNUM
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	05/04/2021	Sampling Date:	05/03/2021
Reported:	05/06/2021	Sampling Type:	Soil
Project Name:	EMERALD PWV 20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON		

Sample ID: S 3 - 2' (H211127-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/04/2021	ND	2.03	102	2.00	9.39		
Toluene*	<0.050	0.050	05/04/2021	ND	1.98	98.8	2.00	9.71		
Ethylbenzene*	<0.050	0.050	05/04/2021	ND	1.92	95.8	2.00	10.1		
Total Xylenes*	<0.150	0.150	05/04/2021	ND	5.67	94.5	6.00	10.1		
Total BTEX	<0.300	0.300	05/04/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 84.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 TOM BYNUM
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	05/04/2021	Sampling Date:	05/03/2021
Reported:	05/06/2021	Sampling Type:	Soil
Project Name:	EMERALD PWV 20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON		

Sample ID: S 4 - 2' (H211127-03)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2021	ND	2.03	102	2.00	9.39		
Toluene*	<0.050	0.050	05/05/2021	ND	1.98	98.8	2.00	9.71		
Ethylbenzene*	<0.050	0.050	05/05/2021	ND	1.92	95.8	2.00	10.1		
Total Xylenes*	<0.150	0.150	05/05/2021	ND	5.67	94.5	6.00	10.1		
Total BTEX	<0.300	0.300	05/05/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 81.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.4 % 38.9-142

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
TOM BYNUM
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received: 05/04/2021
Reported: 05/06/2021
Project Name: EMERALD PWV 20
Project Number: NONE GIVEN
Project Location: DEVON

Sampling Date: 05/03/2021
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S 7 - 2' (H211127-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2021	ND	2.01	101	2.00	10.9		
Toluene*	<0.050	0.050	05/05/2021	ND	1.95	97.6	2.00	10.7		
Ethylbenzene*	<0.050	0.050	05/05/2021	ND	1.92	96.0	2.00	9.65		
Total Xylenes*	<0.150	0.150	05/05/2021	ND	5.72	95.3	6.00	9.45		
Total BTEX	<0.300	0.300	05/05/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 83.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.2 % 38.9-142

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 TOM BYNUM
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	05/04/2021	Sampling Date:	05/03/2021
Reported:	05/06/2021	Sampling Type:	Soil
Project Name:	EMERALD PWV 20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON		

Sample ID: S 8 - 2' (H211127-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2021	ND	2.01	101	2.00	10.9		
Toluene*	<0.050	0.050	05/05/2021	ND	1.95	97.6	2.00	10.7		
Ethylbenzene*	<0.050	0.050	05/05/2021	ND	1.92	96.0	2.00	9.65		
Total Xylenes*	<0.150	0.150	05/05/2021	ND	5.72	95.3	6.00	9.45		
Total BTEX	<0.300	0.300	05/05/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 82.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.6 % 38.9-142

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
 TOM BYNUM
 1601 N TURNER STE. 500
 HOBBS NM, 88240
 Fax To:

Received:	05/04/2021	Sampling Date:	05/03/2021
Reported:	05/06/2021	Sampling Type:	Soil
Project Name:	EMERALD PWV 20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	DEVON		

Sample ID: S 10 - 2' (H211127-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2021	ND	2.01	101	2.00	10.9		
Toluene*	<0.050	0.050	05/05/2021	ND	1.95	97.6	2.00	10.7		
Ethylbenzene*	<0.050	0.050	05/05/2021	ND	1.92	96.0	2.00	9.65		
Total Xylenes*	<0.150	0.150	05/05/2021	ND	5.72	95.3	6.00	9.45		
Total BTEX	<0.300	0.300	05/05/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/05/2021	ND	197	98.3	200	1.39		
DRO >C10-C28*	<10.0	10.0	05/05/2021	ND	208	104	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	05/05/2021	ND						

Surrogate: 1-Chlorooctane 79.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.4 % 38.9-142

Cardinal Laboratories

*=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.
QR-04 The RPD for the BS/BSD was outside of historical limits.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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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*=Accredited Analyte

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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

Company Name: <u>Devon Energy / PIMA</u>		BILL TO			ANALYSIS REQUEST														
Project Manager: <u>Tom Bynum</u>		P.O. #:			<u>BTEX (8021)</u> <u>TPH: (8015D)</u> <u>CL</u>														
Address: <u>1601 N. Turner Ste 500</u>		Company: <u>Devon</u>																	
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn:																	
Phone #: <u>580-748-1613</u> Fax #:		Address:																	
Project #: Project Owner:		City:																	
Project Name: <u>Emerald PWU 20</u>		State: Zip:																	
Project Location:		Phone #:																	
Sampler Name: <u>S.O</u>		Fax #:																	
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G/RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.		SAMPLING								
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					
<u>H211127</u>						<u>X</u>				<u>X</u>			<u>5/3/21</u>		<u>X</u>	<u>X</u>	<u>X</u>		
<u>1</u>		<u>S2-2'</u>		<u>5</u>	<u>1</u>														
<u>2</u>		<u>S3-2'</u>																	
<u>3</u>		<u>S4-2'</u>																	
<u>4</u>		<u>S7-2'</u>																	
<u>5</u>		<u>S8-2'</u>																	
<u>6</u>		<u>S10-2'</u>																	

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Relinquished By: <u>[Signature]</u>		Date: <u>5/4/21</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <u>0820</u>		Date:		Time:		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS:	
Time:						<u>Bill Devon Directly.</u>	
Delivered By: (Circle One)		Observed Temp. °C <u>5.3</u>		Sample Condition		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Bacteria (only) Sample Condition	
				Checked By: (Initials) <u>TO</u>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
						Observed Temp. °C	
						Corrected Temp. °C	
						Thermometer ID #113	
						Correction Factor None	

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



Pima Environmental Services

Appendix F

NMOCD Approved Work

Plan

HUNGRY HORSE, LLC

3709 S. Eunice HWY
P.O. Box 1058
Hobbs, NM 88241
Office: 575-393-3386
Fax: 575-391-4585
info@hungry-horse.com

DIRT WORK * ON-SITE REMEDIATION
SOIL TESTING * EXCAVATION * ELECTRICAL

20Feb18

To: Mike Bratcher, New Mexico Oil Conservation Division
Crystal Weaver, New Mexico Oil Conservation Division
Amber Groves, New Mexico State Land Office

Reference: Remediation Work Plan
Operator: Devon Energy Production Company
Location: Emerald PWU 20 1H
API: 30-015-38338
GPS: 32.6525 W-14.1045
NM OCD: 2RP 4281

Site Information

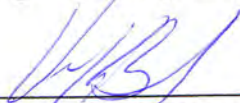
This site is located in rural Eddy County, New Mexico approximately 8.9 miles northwest of the intersection of Curry Comb Road and Highway 360 and 650 yards south of Curry Comb Road. The area is very sparsely vegetated with creosote bushes, mesquite bushes, and range grasses. There are no known water well or surface bodies of water within 1000' of this site. The New Mexico Office of the State Engineer list no groundwater data for this area, but the Eddy county Depth to Groundwater Map indicates groundwater to be 100' BGS. Thus, based on New Mexico Oil Conservation Division guidelines this site is assigned a Site Ranking Score of "0".

Work Conducted to Date

At the time of discovery, wells flowing to the battery were shut in and the repairs made to the three-phase separator. All released fluids remained on the caliche pad and no area off the pad was impacted. The impacted area is in a highly congested area of surface equipment and is approximately 20' x 20'. Two sample points were selected for soil sampling by use of a hand auger. (See attached chloride field test and lab analysis.)

Proposed Remediation

Due to hazards associated with working around the above ground piping/vessels and the sheer congestion of the area, the excavation of the impacted soil will have to be done with hand tools. I propose to hand excavate the impacted soil around the surface equipment to a depth of 1' BGS. The hand excavated soil will be stockpiled on plastic and disposed of at a division permitted facility. Fresh base course will be used for back fill with the area being brought back to grade, leveled, and raked.



Vernon K. Black, Hungry Horse, LLC

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

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141
Revised August 8, 2011

JUN 29 2017

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

RECEIVED

Release Notification and Corrective Action

NAB1718733399 OPERATOR Initial Report Final Report

Name of Company *Devon Energy Production Company* *Q137* Contact *Danny Velo, Production Foreman*

Address *6488 Seven Rivers Hwy Artesia, NM 88210* Telephone No. *575-703-3360*

Facility Name *Emerald PWU 20 1H* Facility Type *Oil*

Surface Owner State _____ Mineral Owner State _____ API No *30-015-38338*

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	20	19S	29E	400'	FNL	330'	FWL	Eddy

Latitude: 32.6525154

Longitude: -104.1045456

NATURE OF RELEASE

Type of Release <i>Oil & Produced Water</i>	Volume of Release <i>.5bbls oil & 4.5bbls produced water</i>	Volume Recovered <i>0bbls recovered</i>
Source of Release <i>Water dump on three-phase separator</i>	Date and Hour of Occurrence <i>June 28, 2017 @ 7:00 PM</i>	Date and Hour of Discovery <i>June 28, 2017 @ 7:00 PM</i>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <i>Shelly Tucker, BLM Mike Bratcher, OCD</i>	
By Whom? <i>Jesse Armendariz, Asst. Production Foreman</i>	Date and Hour <i>Shelly Tucker, BLM June 28, 2017 @ 9:38 PM Mike Bratcher, OCD June 28, 2017 @ 9:40 PM</i>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse <i>N/A</i>	
If a Watercourse was Impacted, Describe Fully.* <i>N/A</i>		
Describe Cause of Problem and Remedial Action Taken.* <i>Three-phase separator was being bled down when gas and sand cut the water dump. The wells producing to the battery were shut in to stop the flow to the battery and then the water dump and three-phase separator were isolated.</i>		
Describe Area Affected and Cleanup Action Taken.* <i>Approximately .5bbls oil and 4.5bbls produced water were released on to location. All fluid remained on location and 0bbls were recovered. The affected area is approximately 13' x 12' on location. An environmental contractor will be contacted to assist with delineation and 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 NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

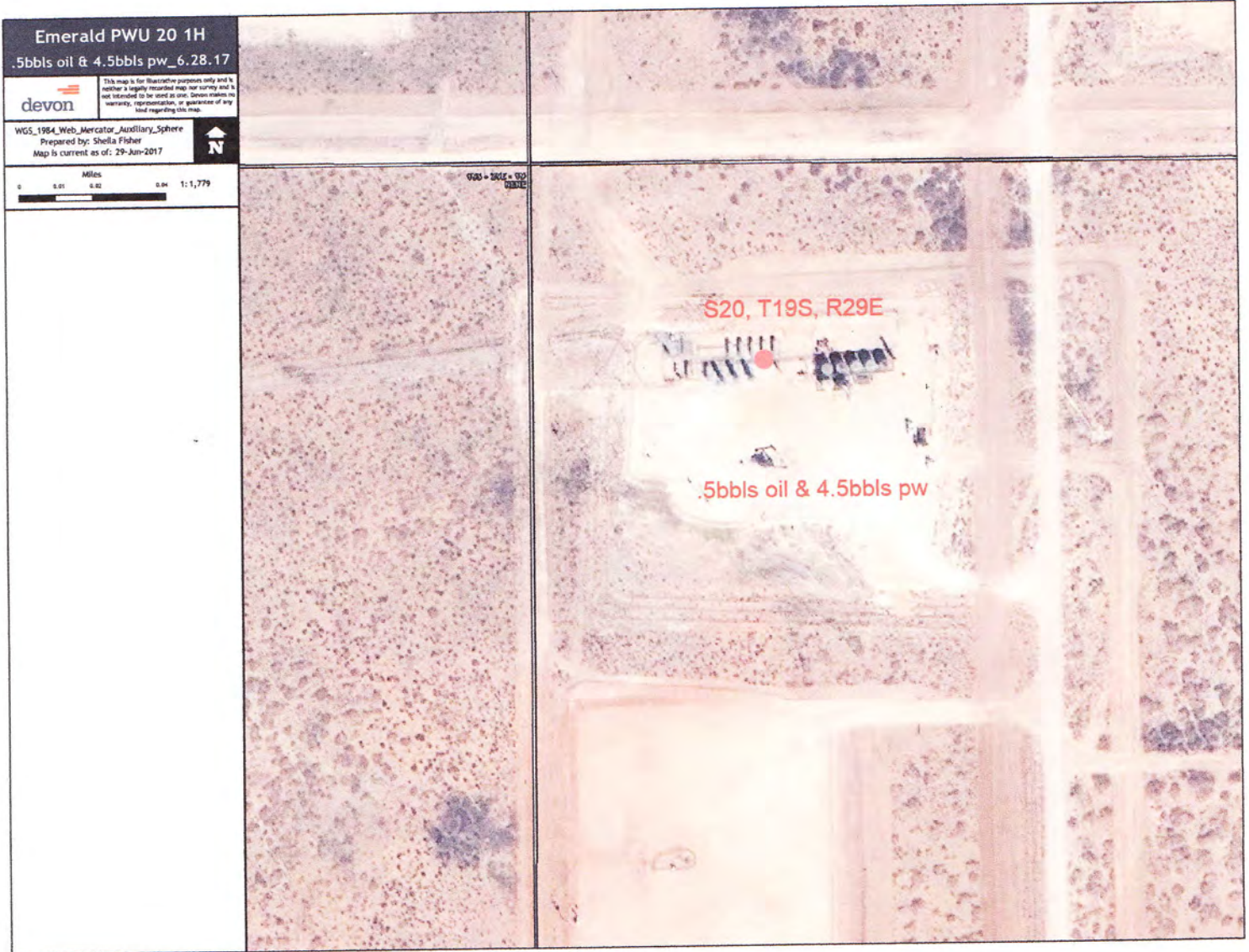
Signature: <i>Sheila Fisher</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <i>Sheila Fisher</i>	Approved by Environmental Specialist: <i>Crystal W...</i>	
Title: <i>Field Admin Support</i>	Approval Date: <i>7/3/17</i>	Expiration Date: <i>N/A</i>
E-mail Address: <i>Sheila.fisher@dvn.com</i>	Conditions of Approval: <i>see attached</i>	Attached <input checked="" type="checkbox"/>

Date: 6/29/17 Phone: 575.748.1829

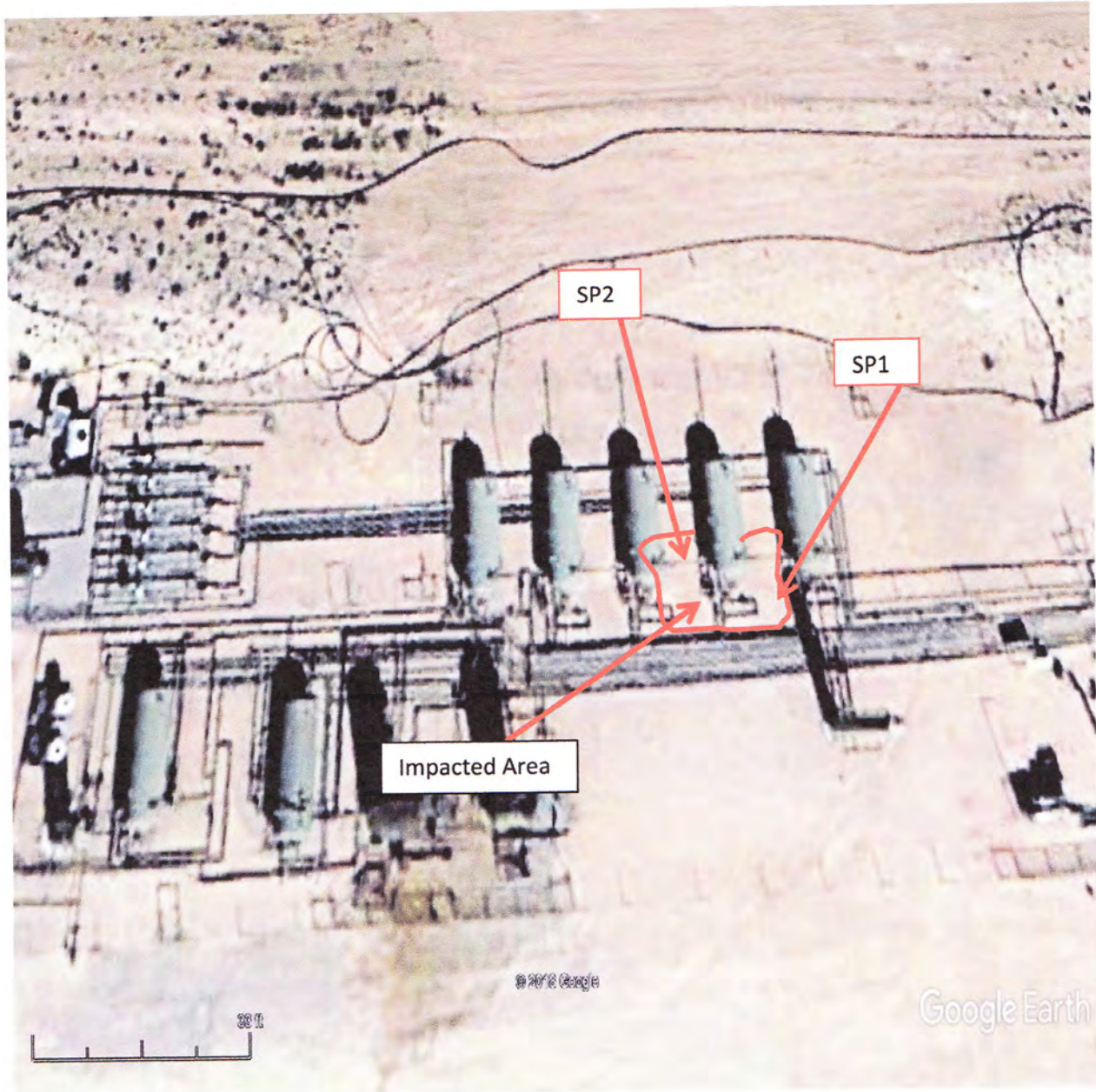
* Attach Additional Sheets If Necessary

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at:
<http://www.emnrd.state.nm.us/>

2RP4281



Devon Energy Production Company - Emerald PWU 20 1H



Devon Energy Production Company-Emerald PWU 20 1H





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

February 19, 2018

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: EMERALD PWU 201 H

Enclosed are the results of analyses for samples received by the laboratory on 02/14/18 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 SURFACE (H800457-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	02/16/2018	ND	1.93	96.4	2.00	0.257	
Toluene*	0.244	0.100	02/16/2018	ND	1.87	93.4	2.00	1.08	
Ethylbenzene*	0.939	0.100	02/16/2018	ND	1.86	92.9	2.00	0.341	
Total Xylenes*	5.72	0.300	02/16/2018	ND	5.51	91.8	6.00	0.357	
Total BTEX	6.90	0.600	02/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 134 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/15/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	285	50.0	02/15/2018	ND	197	98.6	200	5.05		
DRO >C10-C28*	22500	50.0	02/15/2018	ND	216	108	200	24.8		
EXT DRO >C28-C36	3990	50.0	02/15/2018	ND						

Surrogate: 1-Chlorooctane 129 % 41-142

Surrogate: 1-Chlorooctadecane 505 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 1' (H800457-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	02/16/2018	ND	1.93	96.4	2.00	0.257	
Toluene*	<0.200	0.200	02/16/2018	ND	1.87	93.4	2.00	1.08	
Ethylbenzene*	<0.200	0.200	02/16/2018	ND	1.86	92.9	2.00	0.341	
Total Xylenes*	5.29	0.600	02/16/2018	ND	5.51	91.8	6.00	0.357	
Total BTEX	5.29	1.20	02/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	02/15/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	448	10.0	02/15/2018	ND	197	98.6	200	5.05		
DRO >C10-C28*	8620	10.0	02/15/2018	ND	216	108	200	24.8		
EXT DRO >C28-C36	1230	10.0	02/15/2018	ND						

Surrogate: 1-Chlorooctane 151 % 41-142

Surrogate: 1-Chlorooctadecane 175 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 1 2' (H800457-03)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/16/2018	ND	1.93	96.4	2.00	0.257		
Toluene*	<0.050	0.050	02/16/2018	ND	1.87	93.4	2.00	1.08		
Ethylbenzene*	<0.050	0.050	02/16/2018	ND	1.86	92.9	2.00	0.341		
Total Xylenes*	<0.150	0.150	02/16/2018	ND	5.51	91.8	6.00	0.357		
Total BTEX	<0.300	0.300	02/16/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1800	16.0	02/15/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/15/2018	ND	197	98.6	200	5.05		
DRO >C10-C28*	134	10.0	02/15/2018	ND	216	108	200	24.8		
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND						

Surrogate: 1-Chlorooctane 97.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 SURFACE (H800457-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	02/16/2018	ND	1.93	96.4	2.00	0.257	
Toluene*	<0.100	0.100	02/16/2018	ND	1.87	93.4	2.00	1.08	
Ethylbenzene*	0.412	0.100	02/16/2018	ND	1.86	92.9	2.00	0.341	
Total Xylenes*	3.00	0.300	02/16/2018	ND	5.51	91.8	6.00	0.357	
Total BTEX	3.41	0.600	02/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	02/15/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	177	10.0	02/15/2018	ND	197	98.6	200	5.05		
DRO >C10-C28*	10100	10.0	02/15/2018	ND	216	108	200	24.8		
EXT DRO >C28-C36	1580	10.0	02/15/2018	ND						

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 210 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 1' (H800457-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2018	ND	1.93	96.4	2.00	0.257	
Toluene*	<0.050	0.050	02/16/2018	ND	1.87	93.4	2.00	1.08	
Ethylbenzene*	<0.050	0.050	02/16/2018	ND	1.86	92.9	2.00	0.341	
Total Xylenes*	<0.150	0.150	02/16/2018	ND	5.51	91.8	6.00	0.357	
Total BTEX	<0.300	0.300	02/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	02/15/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	24.6	10.0	02/15/2018	ND	197	98.6	200	5.05	
DRO >C10-C28*	2230	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	264	10.0	02/15/2018	ND					

Surrogate: 1-Chlorooctane 95.7 % 41-142

Surrogate: 1-Chlorooctadecane 146 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received:	02/14/2018	Sampling Date:	02/09/2018
Reported:	02/19/2018	Sampling Type:	Soil
Project Name:	EMERALD PWU 201 H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP 2 2' (H800457-06)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2018	ND	1.93	96.4	2.00	0.257	
Toluene*	<0.050	0.050	02/16/2018	ND	1.87	93.4	2.00	1.08	
Ethylbenzene*	<0.050	0.050	02/16/2018	ND	1.86	92.9	2.00	0.341	
Total Xylenes*	<0.150	0.150	02/16/2018	ND	5.51	91.8	6.00	0.357	
Total BTEX	<0.300	0.300	02/16/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/15/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2018	ND	197	98.6	200	5.05	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 97.3 % 37.6-147

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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-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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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Celey D. Keene

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: Hungry Horse, LLC
Project Manager: Vernon K. Black
Address: P.O. Box 1058
City: Hobbs State: NM Zip: 88241
Phone #: 575-393-3386 Fax #: 575-391-4585
Project #: Project Owner: Devon
Project Name: Emerald PWU
Project Location:
Sampler Name: Alberto Barraza

BILL TO		ANALYSIS REQUEST									
P.O. #:											
Company:											
Attn:											
Address:											
City:											
State:	Zip:										
Phone #:											
Fax #:											

FOR LAB USE ONLY		# CONTAINERS	MATRIX					PRESERV.	SAMPLING		DATE	TIME	CI	BTEX	TPH	
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE		OTHER:	ACID/BASE:						ICE / COOL
H800457		6			X				X			2-9-18	8:00	X	X	X
1	SP1 SURFACE												8:10			
2	SP1 1'												8:20			
3	SP1 2'												8:30			
4	SP2 SURFACE												8:40			
5	SP2 1'												8:50			
6	SP2 2'															

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Relinquished By: <i>Alberto Barraza</i>	Date: 2/14/18	Received By: <i>Jodi Benson</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: 11:20			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
Time:				
Delivered By: (Circle One) #75	Sample Condition	CHECKED BY: <i>[Signature]</i>		
Sampler - UPS - Bus - Other: 4.40 / 4.650	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, June 7, 2018 7:32 AM
To: 'Vernon Black'; Weaver, Crystal, EMNRD; Ryan Mann (rmann@slo.state.nm.us)
Cc: Shoemaker, Mike
Subject: RE: Devon Emerald PWU 20 1H Plan

RE: Devon Energy * Emerald PWU 20 1H * 2RP-4281 * DOR: 6/28/17

Vernon,

Your proposal for remediation of the above referenced release is approved. Confirmation samples, with analytical data provided for OCD review required prior to backfill. Please advise once remedial activities have been scheduled.

MIKE: There are two more release events open on this site: 2RP-779 (26 bbl oil & PW release in 2011) and 2RP-4109 (remediation proposal approved 1/30/17).

Thank you,

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

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

From: Vernon Black <vblack@hungry-horse.com>
Sent: Monday, April 23, 2018 9:54 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Ryan Mann (rmann@slo.state.nm.us) <rmann@slo.state.nm.us>
Cc: Shoemaker, Mike <Mike.Shoemaker@dvn.com>
Subject: Devon Emerald PWU 20 1H Plan

Good morning,

Please see the attached work plan and corresponding lab report and spreadsheet for the above referenced remedation project. Please do not hesitate to call if you have questions.

Thanks in advance for your help.

Vernon K. Black
Hungry Horse, LLC
PO Box 1058
Hobbs, NM 88241

575-393-3386 office
575-631-2253 cell

Incident ID	NAB1718733399
District RP	2RP-4281
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
 Signature: *Tom Bynum* Date: 10-21-20
 email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: Robert Hamlet Date: 7/29/2021

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

Closure Approved by: *Robert Hamlet* Date: 7/29/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 32360

CONDITIONS

Operator: Pima Environmental Services, LLC 1601 N. Turner Hobbs, NM 88240	OGRID: 329999
	Action Number: 32360
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAB1718733399 EMERALD PWU 20 #001H, thank you. This closure is approved.	7/29/2021