

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)-interlayed 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		Cons	tituent & Limits						
(Appendix A)	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 Is	sues		Yes	No				
Within 300 feet of any co	Within 300 feet of any continuously flowing watercourse or any other significant watercourse								
Within <u>200</u> feet of any la water mark		х							
Within 300 feet from an	occupied permanent resi	dence, school, hospital,	institution, or church		x				
Within <u>500</u> feet of a sprin households for domestic		freshwater well used by	y less than five		x				
Within 1000 feet of any	freshwater well or spring				X				
Within incorporated mur	nicipal boundaries or with	nin a defined municipal	freshwater well field		х				
Within 300 feet of a wetl					X				
Within the area overlying	g a subsurface mine				X				
Within an unstable area (X								
Within a 100-year flood	olain				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 NMOCD (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

N	MOCD Tab	le 1 Clasu	re Criteria:	19.15.29 N	MAC (Depl	th to Groun	dwater is >10	D'1		
Sample Dat 7-7-20	e	NM Approved Laboratory Results								
Sample ID	Depth (BG5)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	ci mg/kg		
5-1	0-6	ND	ND	ND	ND	ND	ND	360		
3-4	1	ND	ND	ND	ND	ND	ND	160		
5-2	0-6	ND	ND	ND	11000	8300	19300	3800		
5-3	0-6	ND	ND	ND	11	ND	11	17000		
5-4	0-6	ND	ND	ND	ND	ND.	ND	570		
3-4	-1	ND	ND	ND	ND	ND:	ND:	210		
5-5	0-6	ND	ND	ND	ND	ND	ND	ND		
3-3	1	ND	ND	ND	ND	ND	ND	54		
5-6	0-6	ND	ND	ND	ND	ND -	ND	1200		
5-7	0-6	ND	ND	ND	ND	ND	ND	ND		
3-7	1	ND	ND	ND	ND	ND	ND	ND-		
5-8	0-6	ND	ND	ND	ND	ND.	ND	2300		
3-0	1	ND	ND	ND	ND	ND	ND	200		
5-9	0-6	ND:	ND	ND	20000	12000	32000	4100		
3-3	1	ND	ND	ND	240	190	430	430		
5-10	0-6	ND	ND	ND	2700	3200	5900	2600		
5-11	0-6	ND	ND	ND	3500	3600	7100	250		
5-11	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

	NMOCE	Table 1 C	losure Crite	ria 19.15.	29 NMAC (HIGH KARS	TAREA <50')						
Sample Dat 11-19-20	e			NM Approved Laboratory Results									
Sample ID	Depth (BG5)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	ci mg/kg					
	111	ND	ND	ND	1350	272	1622	560					
S-15	2	ND	ND	ND	204	53.2	257.2	688					
	3	ND	ND	ND	50.8	ND	50.8	464					
. 6.	1	ND -	ND	ND	13,2	ND	13.2	320					
5-16	2	ND -	ND	ND	ND	ND:	ND	272					
	3	ND	ND .	ND	70.5	15.8	86.3	176					
7 = 1	1	ND	ND	ND	ND:	ND	ND	48					
5-17	2	ND	ND	ND	ND:	ND	ND	32					
	3	ND	NDN	ND	ND	ND	ND	32					
	1	ND	ND	ND	ND	ND	ND	16					
5-18	2	ND	ND	NDN	ND	ND	ND	32					
- 1	3	ND	ND	ND	ND	ND	ND	32					
-	1	1.11	ND	121	4640	814	5575	368					
S-19	2	ND	ND	12	904	151	1067	512					
	3	ND	ND	ND	418	80.9	498.9	544					
Latina I	1	ND	ND	35.6	5850	1120	7005.6	96					
5-20	2	ND	ND	ND	83.9	18.2	102.1	128					
	- 3	ND	ND.	ND	290	55.9	345.9	176					
5-21	1	ND	ND-	ND	123	35.6	158.6	80					
11.31	1	ND	ND	ND	44.4	10.6	55	1620					
5-22	2	ND	ND	ND	22	ND	22	48					
	3	ND	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 11-25	-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	CI mg/kg			
S-1 W. BOTTOM	2	ND	ND	ND	ND	ND	ND	64			
5-1 W. SIDEWALL COMP	2	ND -	ND	ND	ND	ND	ND	64			
5-5 S. BOTTOM	2	ND -	ND	ND	ND	ND-	ND	96			
5-5 S. SIDEWALL COMP	2	ND	ND	ND	ND	ND-	ND	80			
5-6 S. SIDEWALL COMP	- 2	ND	ND	ND	ND	ND-	ND	112			
5-6 5. BOTTOM	2	ND.	ND	ND	ND	ND	ND	112			
S-13 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	64			
5-13 E. BOTTOM	2	ND	ND	ND	ND	ND -	ND	80			
5-12 N. BOTTOM	2	ND	ND	ND	ND	ND	ND	96			
5-12 N. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	54			
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			
5-14 S. SIDEWALL COMP	- 2	ND	ND	ND	ND	ND.	ND.	54			
S-14 S. BOTTOM	2	ND	ND	ND	ND	ND-	ND	80			
	1	ND	ND	ND	ND	ND	ND	112			
5-23	2	ND	ND	ND	ND	ND	ND	112			
the second second	3	ND	ND	ND	ND	ND	ND	112			
	1	ND	ND	ND	ND	ND	ND	800			
5-2/4	2	ND	ND	ND	ND	ND	ND	112			
	3	NO -	ND	ND	ND	ND	ND	96			
	1	ND	ND	ND	ND	ND-	ND	272			
5-25	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 12-10	-20	NM Approved Laboratory Results										
Sample (D	Depth (BG5)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	CI mg/kg				
5-6 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				
5-24 N. BOTTOM	. 2	ND	ND	ND	ND	ND	ND	64				
S-25 E. SIDEWALL COMP	2	ND	ND	ND	ND	ND	ND	48				
5-25 E. BOTTOM	2	ND	ND	ND	ND	ND	ND	48				
5-26 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 3^{rd} , 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

NMOC	CD Table 1 Clo	sure Crit	eria 19.15.2	9 NMAC (HIGH KAR	ST AREA	:50')						
	1	Devon En	ergy - Emera	ld PWU 20	#1H								
Sample Date 5-3-21			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



Figures:

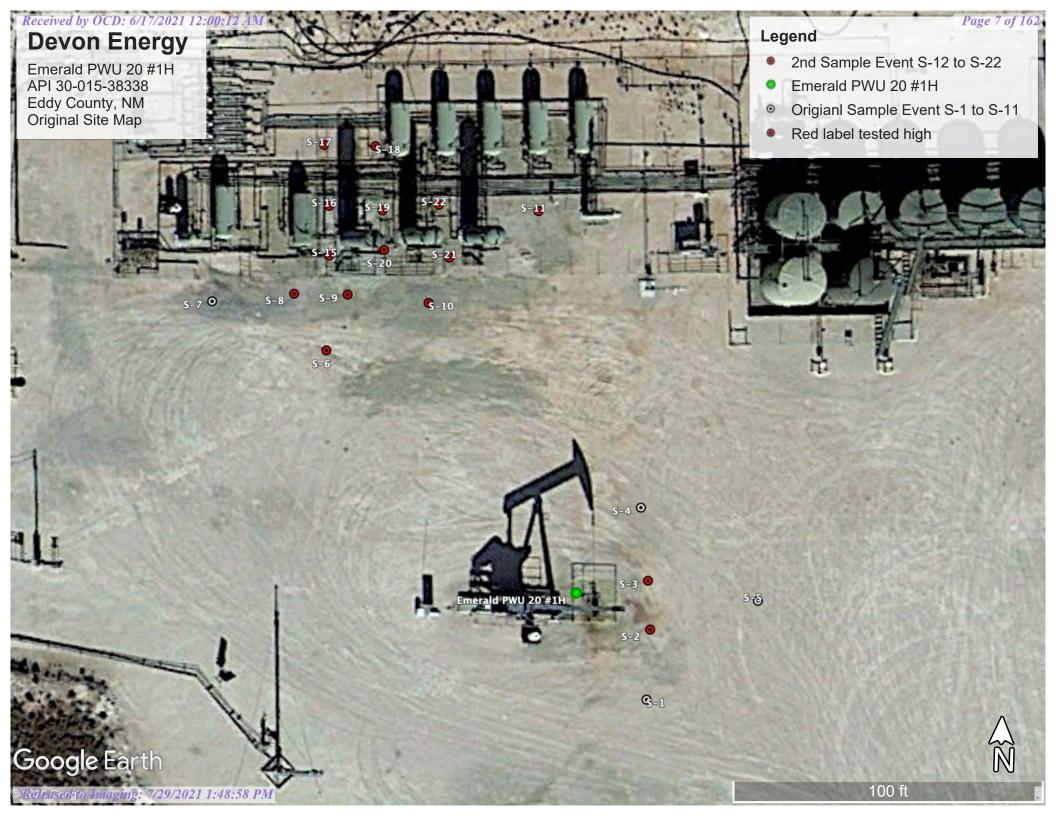
1-Site Map

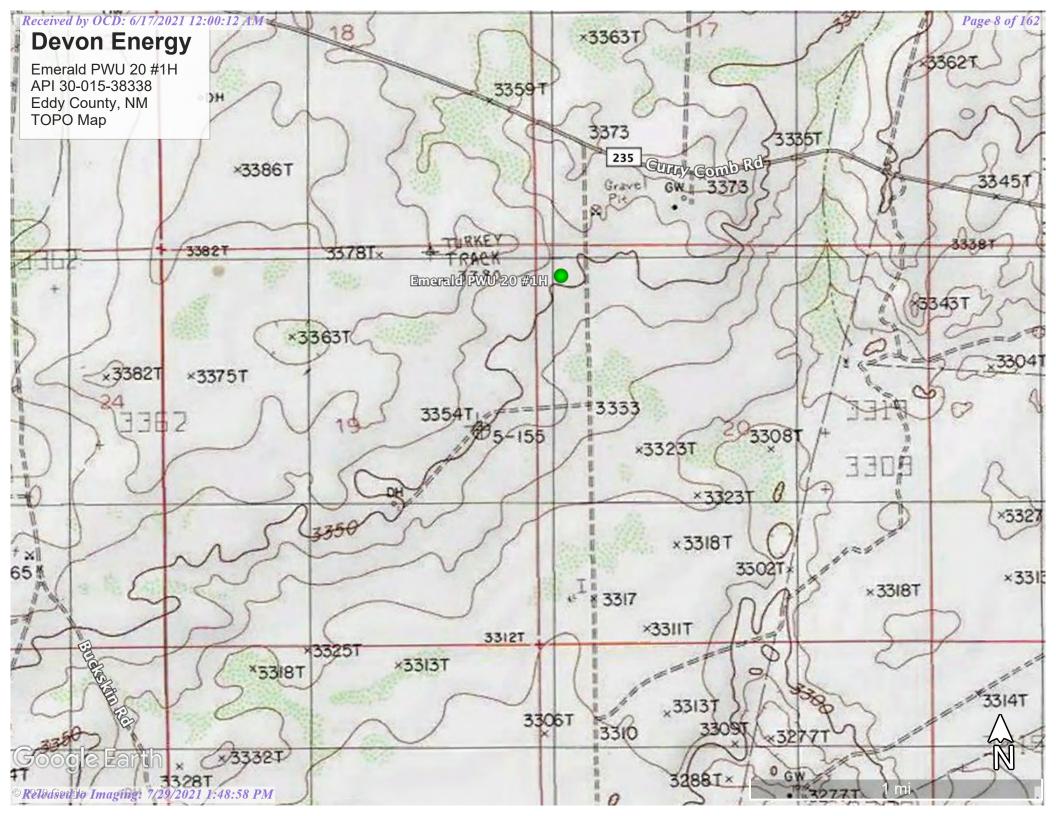
2-Topo Map

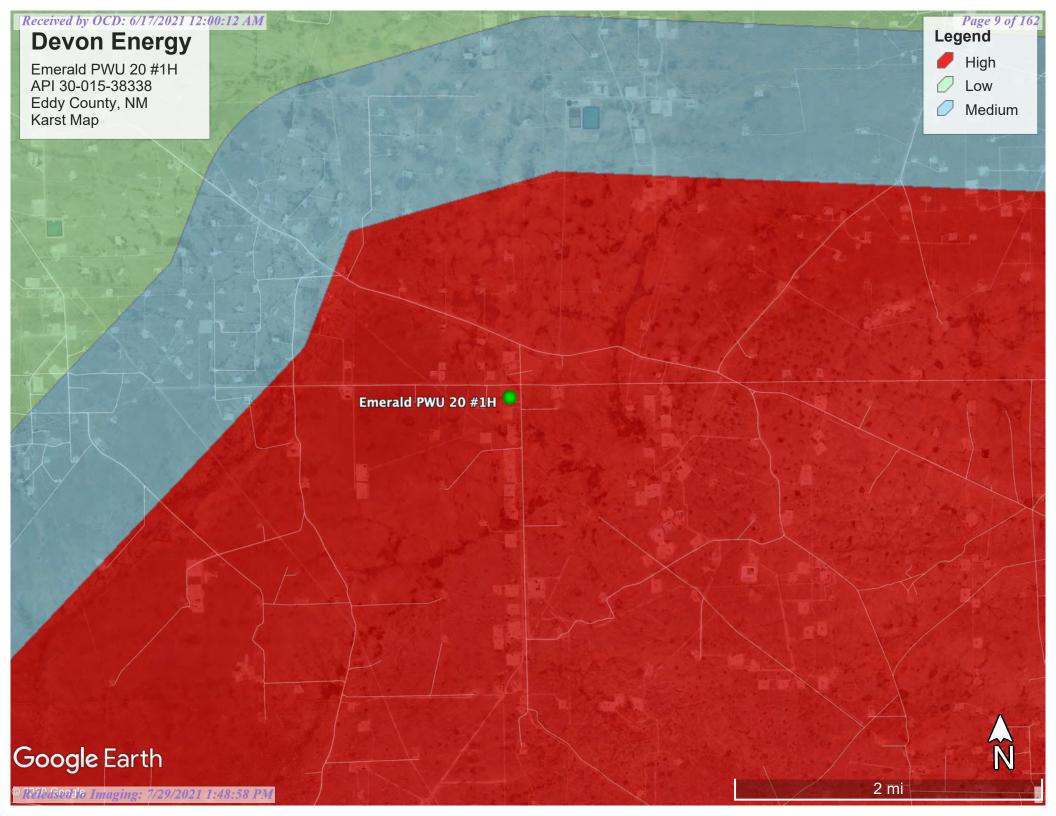
3-Karst Map

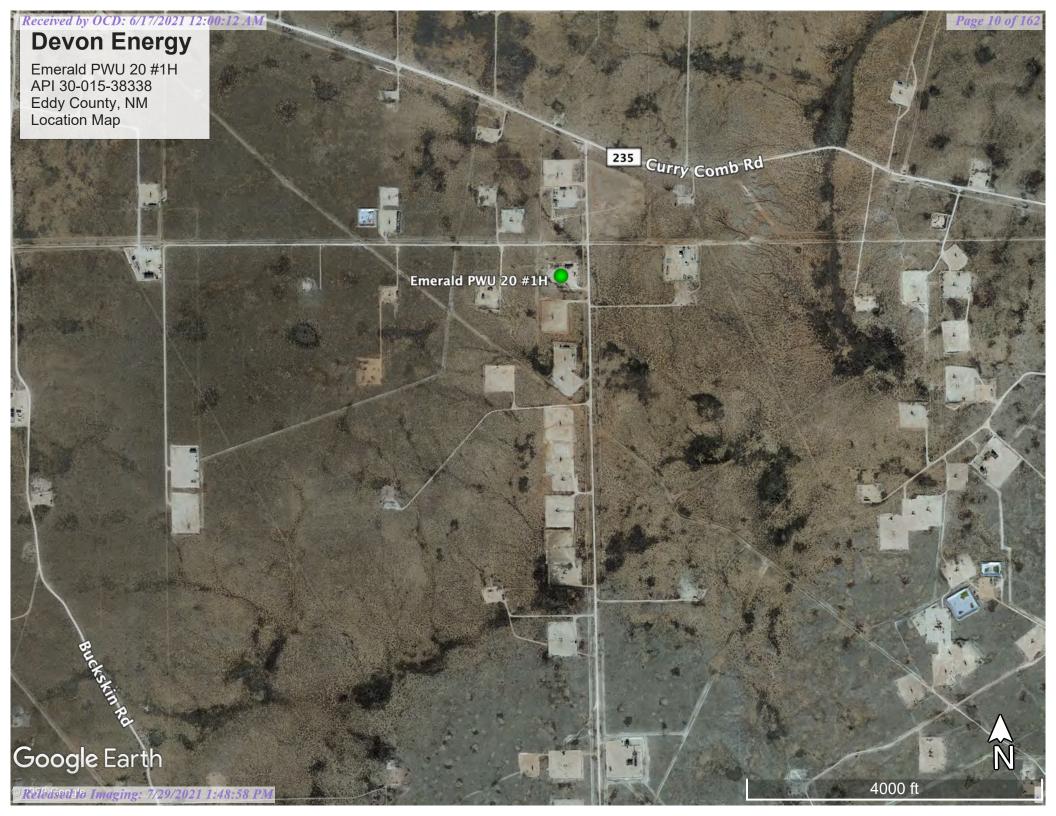
4-Location Map

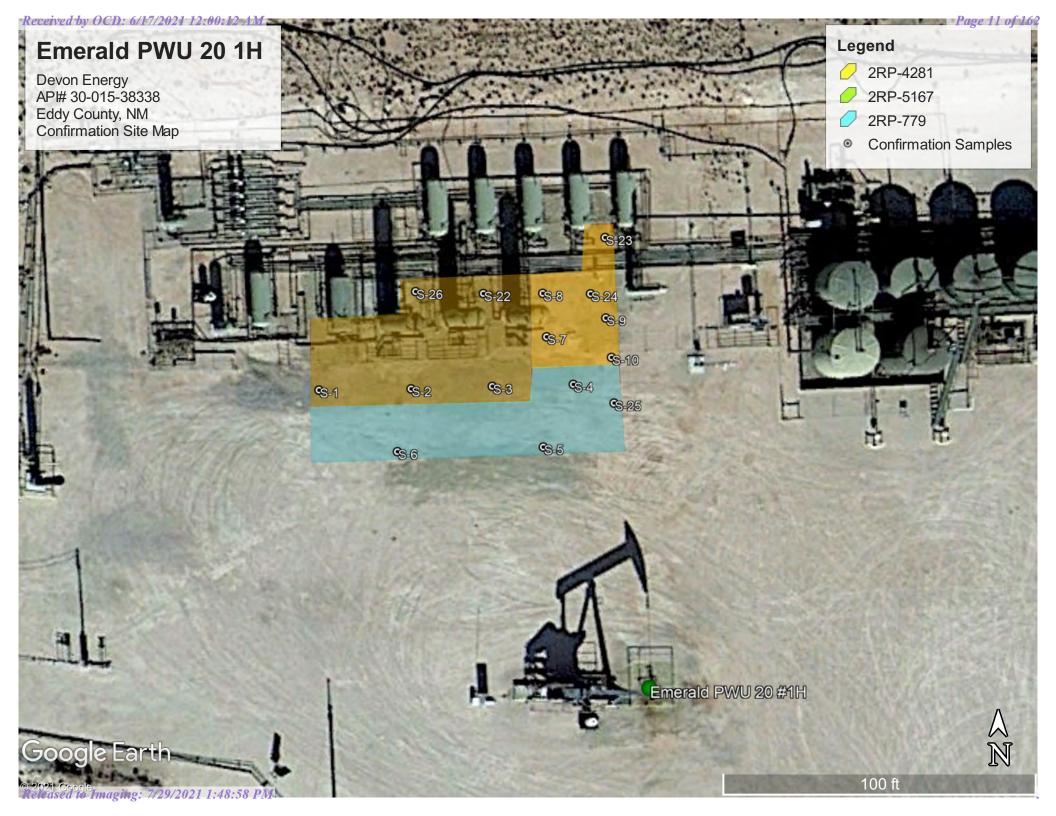
5-Confirmation Site Map













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													
		Sub-		Q	Q	Q								V	Vater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDo	epthWellDep	thWater Co	olumn
<u>CP 00646</u>		CP	ED	1	1	4	07	19S	29E	583155	3615551	2565	199	150	49
CP 01231 POD1		CP	ED	4	4	2	36	19S	28E	582311	3609372	4102	300	75	225
<u>CP 01858 POD1</u>		CP	ED	4	1	4	01	19S	28E	581872	3617163	4556	55		
<u>CP 00681</u>		CP	ED	1	1	3	34	19S	29E	587230	3609127*	5151			
CP 00830 POD1		CP	LE		2	1	04	20S	29E	586118	3608193*	5373	120		
<u>CP 00741</u>		CP	ED	1	3	2	34	19S	29E	588030	3609533*	5413	230	60	170
<u>CP 00626 POD1</u>		CP	ED	2	3	1	03	19S	29E	587360	3617575	5592	286	247	39
<u>CP 00743 POD1</u>		CP	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

 ${}^{*}\mathrm{UTM}$ 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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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

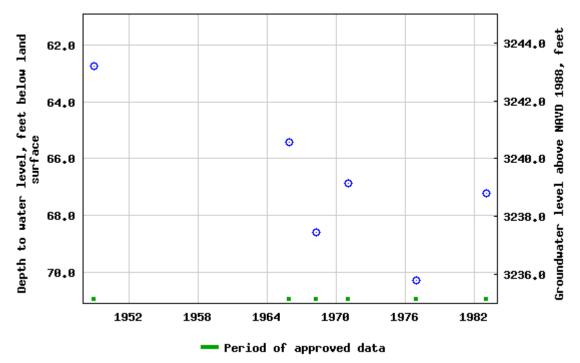
Available data for this site	Groundwater:	Field measurements	→ GC)
Eddy County, New Mexico				_
Hydrologic Unit Code 1306	0011			
Latitude 32°39'00", Longi	tude 104°0	5'29" NAD27		
Land-surface elevation 3,3	06 feet abo	ve NAVD88		
This well is completed in th	ne Other aq	uifers (N9999OTI	HER) n	ational aquifer.
This well is completed in th	າe Rustler F	ormation (312RS	LR) loc	cal aquifer.

Output formats

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

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USGS 323900104052901 195,29E,20,24111 RATLSNAKE



Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

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0.66 0.6 nadww01





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Search Results -- 1 sites found

site_no list =

• 323845104075601

Minimum number of levels = 1

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USGS 323845104075601 19S.28E.24.32233

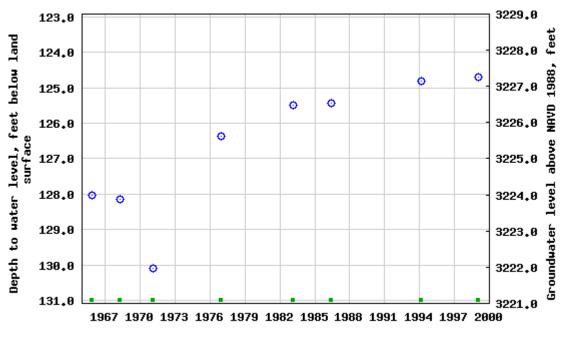
Available data for this site	Groundwater:	Field measurements	∨ GO	
Eddy County, New Mexico				
Hydrologic Unit Code 1306	0011			
Latitude 32°38'45", Longi	tude 104°0	7'56" NAD27		
Land-surface elevation 3,3	52 feet abo	ve NAVD88		
This well is completed in th	ne Other aq	uifers (N9999OTI	HER) nati	onal aquifer.
This well is completed in the	ne Rustler F	ormation (312RS	SLR) local	aquifer.

Output formats

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

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Period of approved data

Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

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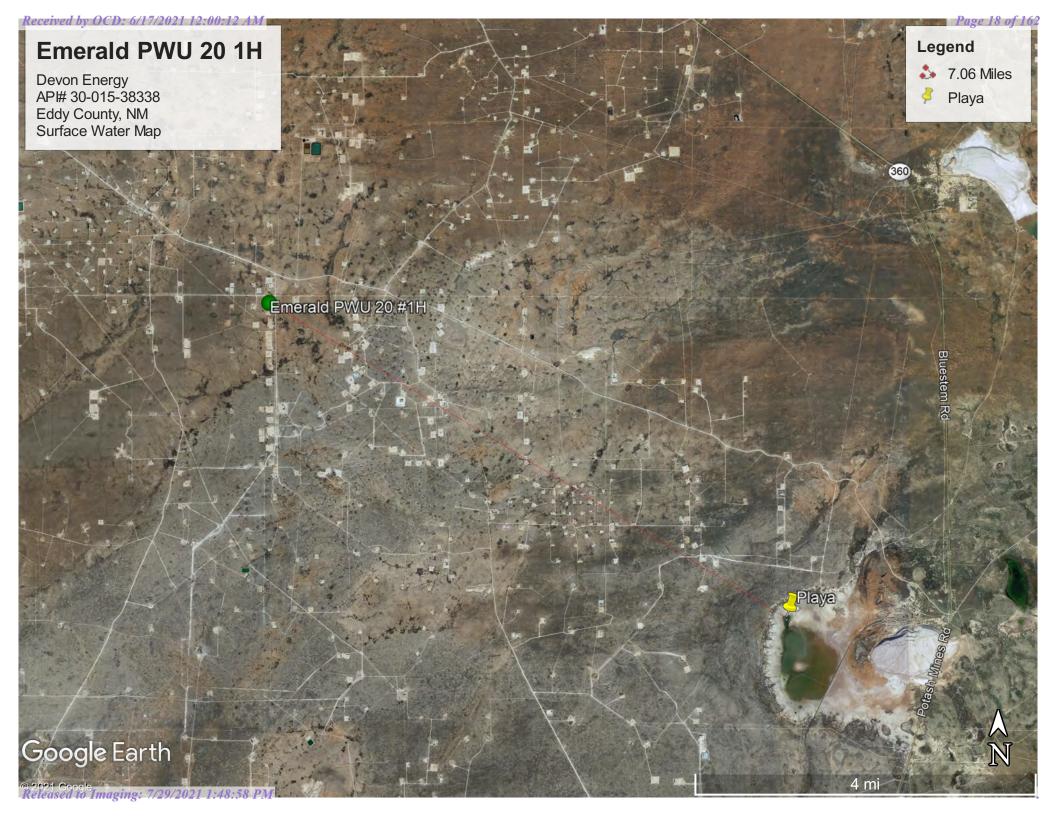
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

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

0.66 0.59 nadww01







Appendix B

Soil Survey & Geological Data FEMA Flood Map

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



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

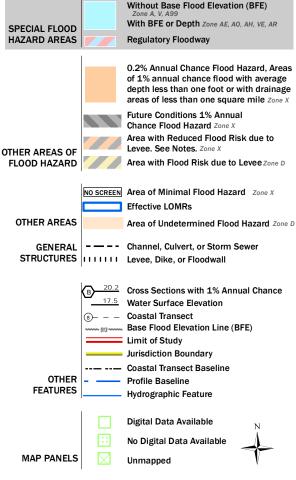
Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 15, Sep 15, 2019

Received by OCD: 6/17/2021 12:00:12 AM National Flood Hazard Layer FIRMette



Legend

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



This map complies with FEMA's standards for the use of

an authoritative property location.

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

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.



2,000



Appendix C

C-141's:

Initial

Final

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

NM OIL CONSERVATION

ARTESIA DISTRICT **Energy Minerals and Natural Resources**

Form C-141 Revised August 8, 2011

JUN **2 9** 2017 Submit I Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Oil Conservation Division 1220 South St. Francis Dr.

State of New Mexico

1220 S. St. 11an	CIS DI., Saint	a 1°C, 19191 07502	,	Sa	ınta Fe	, NM 875	05	,				
			Rele	ease Notific	cation	and Co	rrective A	ction	1			
NAB17	1A73	3399				OPERA	TOR		✓ Initia	al Report		Final Report
			y Product	ion Company [anny Velo, Prod					
		Rivers Hwy		NM 88210			No. 575-703-33	60				
Facility Na	me Emera	ld PWU 20	1H]	Facility Typ	pe Oil					
Surface Ov	vner State			Mineral (Owner	State			API No	30-015-38	3338	
				LOCA	ATION	N OF REI	EASE					
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/\	West Line	County		
D	20	19S	29E	400'	1	FNL	330'	1	FWL	Eddy		
	i		ļ									
			Lat	titude: 32.6525	154	Long	g itude: - 104.104	5456				
				NAT	URE	OF RELI	EASE					
Type of Rele	ase						Release .5bbls	oil &	Volume l	Recovered		
	Type of Release Dil & Produced Water Source of Release Water dump on three-phase separator Was Immediate Notice Given? Yes No Not I Not I Yes No Not I Yes Not I				duced water		Obbls reco					
		ase separator				1	Hour of Occurre 117 @ 7:00 PM	nce		Hour of Di 2017 @ 7:00		y
		Given?				If YES, To	Whom?					
		\boxtimes	Yes _] No 🔲 Not Re	equired	Shelly Tuc						
By Whom? J	lesse Armei	ndariz, Asst. F	Production	Foreman		Mike Brate Date and I					-	
•							ker, BLM June 28					
Was a Watercourse Decahal?						Mike Bratcher, OCD June 28, 2017 @ 9:40 PM If YES, Volume Impacting the Watercourse						
was a water	icourse Re		Yes 🗵	No		N/A	nume impacting	the w	attitouist			
If a Waterco	urse was I	mpacted, Des	scribe Ful	lv.*								
N/A												
		olem and Ren		t ion Taken.* en gas and sand cu	it the wa	ter dumn Tl	ne welle producin	a to the	hattery we	re shut in to	ston th	e flow to the
				e separator were is		iter dump. Ti	ie wens producin	g to the	battery we	ic shut in to	stop til	e now to the
·		•	-	-								
Describe Ar						1 4.11	a	1	1.01.1	•		TEL CC 4 I
				water were release n environmental c							/erea.	The affected
arta io appro-						. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
1 hereby certi	fy that the i	information g	iven above	e is true and comp	lete to th	ne best of my	knowledge and u	ındersta	nd that pur	suant to NM	OCD n	ules and
regulations al	ll operators	are required t	o report a	nd/or file certain r	release no	otifications a	nd perform correc	ctive act	ions for rel	eases which	may er	ndanger
				ce of a C-141 report investigate and r								
				otance of a C-141								
federal, state,	or local la	ws and/or regi	ulations.				OH GOV	CEDI	. A TELON	DIIIIGI		** 1.00
Signature: S	h <i>eila.</i> Fi	wher					OIL CON	SEK V	ATION	DIVISI	\	,
orginature. Or	100000 0	781 401							Carl	ر ایدار	11 J	Ma
Printed Name	e: Sheila Fi	sher				Approved by	Environmental S	pecialis	t:\\\\\	DIX	<u> </u>	
Title: Field A	Admin Sun	port				Approval Da	e: 7/3/1	7	Expiration	Date: N	A	
							• • • • • • • • • • • • • • • • • • • •	•	•			
E-mail Addre	ess: Sheila.	fisher@dvn.c	com			Conditions of	Appropriate of	A 0 a	2)	Attached	(X)	
Data: 6/20/	17	Dha	E7E 7	10 1030		YU.	mine		<i>-</i> \	1	• /	-

* 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/

Released to Imaging: 7/29/2021 1:48:58 PM

Phone: 575.748.1829

	Page 26 of 10	62
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 taler than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)
Did this release impact groundwater or surface water?	☐ Yes 🗵 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🗵 No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	ĭ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	

Ch	naracterization Report Checklist: Each of the following items must be included in the report.
\times	Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
\times	Field data
X	Data table of soil contaminant concentration data
\times	Depth to water determination
X	Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
X	Boring or excavation logs
X	Photographs including date and GIS information
_	Topographic/Aerial maps

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.

■ Laboratory data including chain of custody

Received by OCD: 6/17/2021 12:00:12 AM Form C-141 State of New Mexico Page 4 Oil Conservation Division

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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				
Signature: Tom Bynum email: tom.bynum@dvn.com	Selephone: <u>575-748-2663</u>				
OCD Only					
Received by:	Date:				

	Page 28 of 16	52
Incident ID	NAB1718733399	
District RP	2RP-4281	
Facility ID		
Application ID		

Remediation Plan

Remediation Plan Checklist: Each of the following items must b	e included in the plan.
 ✓ Detailed description of proposed remediation technique ✓ Scaled sitemap with GPS coordinates showing delineation poin ✓ Estimated volume of material to be remediated ✓ Closure criteria is to Table 1 specifications subject to 19.15.29. ✓ Proposed schedule for remediation (note if remediation plan tin 	12(C)(4) NMAC
<u>Deferral Requests Only</u> : Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around p deconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.
	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: Tom Bynum	Title: EHS Consultant
Signature: Tom Bynum	Date: <u>10/21/2020</u>
Signature:	Γelephone: <u>575-748-2663</u>
OCD Only	
Received by:	Date:
Approved	Approval
Signature:	<u>Date:</u>

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



Appendix D

Photographic Documentation

Excavation Photos

Tank Battery Area

















In Front of Wellhead for 2RP-5377

Completed & Backfilled















Appendix E

Laboratory Reports

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109



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,

Andy Freeman

Laboratory Manager

andy

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

Project: Emerald PWU 20 1H

Lab ID: 2007408-001

Matrix: SOIL

Collection Date: 7/7/2020 3:30:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S1, 0"-6"

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	<u> </u>				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 ORGA	ANICS				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	Γ				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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

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

Page 1 of 23

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-002

Client Sample ID: S1, 1'

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

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 ORGA	NICS				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

Matrix: SOIL

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

Qualifiers:

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

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

Page 2 of 23

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-003

Client Sample ID: S2, 0"-6"

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

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 ORGA	NICS					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

Matrix: SOIL

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

Qualifiers:

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

pipe pH Not in Range
Page 3 of 23

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-004

Matrix: SOIL

Collection Date: 7/7/2020 3:45:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S3, 0"-6"

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 ORG	ANICS					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 LIS	Т					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 4 of 23

Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Emerald PWU 20 1H **Project:**

2007408-005 Lab ID:

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

Client Sample ID: S4, 0"-6"

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 ORGA	NICS					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

Matrix: SOIL

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

Qualifiers:

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

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-006

,

Matrix: SOIL

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

Client Sample ID: S4, 1'

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 ORGA	NICS					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-007

Matrix: SOIL

Collection Date: 7/7/2020 4:00:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S5, 0"-6"

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 ORGA	NICS					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	Г					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-008

Client Sample ID: S5, 1'

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

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 ORGA	NICS					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

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-009

Matrix: SOIL

Collection Date: 7/7/2020 4:10:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S6, 0"-6"

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 ORGA	NICS					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-010

Matrix: SOIL

Collection Date: 7/7/2020 4:15:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S7, 0"-6"

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 ORGA	ANICS					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	Γ					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-011

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

Matrix: SOIL

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

Client Sample ID: S7, 1'

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 ORGA	NICS				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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-012

Matrix: SOIL

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

Client Sample ID: S8, 0"-6"

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 ORGA	ANICS				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	Г				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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-013

Client Sample ID: S8, 1'

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

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 ORGA	NICS				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

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-014

Matrix: SOIL

Collection Date: 7/7/2020 4:35:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S9, 0"-6"

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 ORGA	NICS					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-015

Client Sample ID: S9,1'

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

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 ORGA	NICS				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

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-016

Matrix: SOIL

Collection Date: 7/7/2020 4:45:00 PM **Received Date:** 7/9/2020 9:18:00 AM

Client Sample ID: S10, 0"-6"

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 ORGA	NICS					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	Г					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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-017

Client Sample ID: S11, 0"-6"

Collection Date: 7/7/2020 4:50:00 PM 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 ORGA	ANICS					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	Т					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

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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Date Reported: 7/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Lab ID: 2007408-018

Collection Dat

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

Client Sample ID: S11, 1'

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 ORGA	NICS				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

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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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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 Quanitative 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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Hall Environmental Analysis Laboratory, Inc.

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: LCS-53629

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 SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result PQL HighLimit Qual Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 12 55.1 10.00 121 146

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 PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 10 70 130 53 50.00 106 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: \$1, 0"-6" RunNo: 70238 Batch ID: 53629 Prep Date: 7/10/2020 Analysis Date: 7/11/2020 SeqNo: 2442223 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 44 47.13 0 92.4 47.4 9.4 136 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: \$1, 0"-6" Batch ID: 53629 RunNo: 70238 Prep Date: 7/10/2020 Analysis Date: 7/11/2020 SeqNo: 2442224 Units: mg/Kg %RPD Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Analyte 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
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

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

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Hall Environmental Analysis Laboratory, Inc.

WO#: **2007408**

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: mb-53614	SampT	уре: МЕ	BLK	Tes	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batch	n ID: 53 6	614	F	RunNo: 70	0265					
Prep Date: 7/9/2020	Analysis D	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	Samp ⁻	Гуре: LC	S4	Tes	thod 8260B: Volatiles Short List					
Client ID: BatchQC	Batc	h ID: 53	614	F	RunNo: 70					
Prep Date: 7/9/2020	/9/2020 Analysis Date: 7/11/2020 SeqNo: 2442044 Units: mg				Units: mg/k	₃ /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	Samp	Гуре: М S	64	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	•
Client ID: \$1,0"-6"	Batc	h ID: 53 0	614	F	RunNo: 7					
Prep Date: 7/9/2020	Analysis [Date: 7/	11/2020	5	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 Quanitative 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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Hall Environmental Analysis Laboratory, Inc.

WO#: **2007408**

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: 2007408-001amsc	l SampT	Гуре: М S	SD4	Tes	tCode: El						
Client ID: S1, 0"-6"	Batcl	h ID: 53 0	614	F	RunNo: 7 0						
Prep Date: 7/9/2020	Analysis D	Date: 7/	11/2020	9	SeqNo: 2442047			Units: mg/Kg			
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 Quanitative Limit

- 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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Hall Environmental Analysis Laboratory, Inc.

WO#: 2007408

16-Jul-20

Client: Pima Environmental Services LLC

Project: Emerald PWU 20 1H

Sample ID: 2007408-002ams

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: mq/Kq

PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 450 500.0 89.8 70 130

Sample ID: Ics-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 70 Gasoline Range Organics (GRO) 5.0 25.00 O 75.9 130

TestCode: EPA Method 8015D Mod: Gasoline Range

Surr: BFB 480 500.0 96.2 70 130

Client ID: S1, 1' Batch ID: 53614 RunNo: 70265

SampType: MS

Prep Date: 7/9/2020 Analysis Date: 7/11/2020 SeqNo: 2442076 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte PQL LowLimit Qual Gasoline Range Organics (GRO) 21 4.9 24.73 0 84.3 70 130 Surr: BFB 480 97.1 494.6 70 130

Sample ID: 2007408-002amsd TestCode: EPA Method 8015D Mod: Gasoline Range SampType: MSD

Client ID: S1, 1' Batch ID: 53614 RunNo: 70265

Prep Date: 7/9/2020 Analysis Date: 7/12/2020 SeqNo: 2442077 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result PQL LowLimit Qual Gasoline Range Organics (GRO) 21 4.8 23.92 86.0 70 1.38 130 20 Surr: BFB 470 478.5 97.3 70 130 0 0

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 23 of 23



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 Envir Services L		Work	Order Num	ber: 200	7408			RcptNo: 1	
Received By:	Juan Roja	as	7/9/202	20 9:18:00 A	M		Guan	39		
Completed By	: Juan Roja	as		20 10:12:55			Guan	3		
Reviewed By:	En	n 7/9/	215				2111			
Chain of Cu	ustody									
1. Is Chain of		lete?			Yes	~	No		Not Present	
2. How was ti	ne sample deliv	vered?			Cou	rier				
Log In										
3. Was an att	empt made to	cool the samp	les?		Yes	~	No		NA 🗆	
4. Were all sa	mples received	l at a tempera	ture of >0° C	to 6.0°C	Yes	V	No		NA 🗆	
5. Sample(s)	in proper conta	iner(s)?			Yes	V	No			
6. Sufficient sa	ample volume f	or indicated te	est(s)?		Yes	~	No			
7. Are sample:	s (except VOA	and ONG) pro	perly preserve	ed?	Yes	V	No			
8. Was preser	vative added to	bottles?			Yes		No	V	NA 🗆	
9. Received at	least 1 vial wit	h headspace	<1/4" for AQ \	/OA?	Yes		No		NA 🗹	
10. Were any s	ample containe	ers received b	roken?		Yes		No	V	# of preserved	
11. Does paper (Note discre	work match bot pancies on cha)		Yes	V	No		bottles checked for pH: (<2 or >12 unle	ss noted)
12. Are matrice:	s correctly iden	tified on Chai	n of Custody?		Yes	~	No		Adjusted?	
13, Is it clear wh	nat analyses we	ere requested	?		Yes	~	No			1010
14. Were all hol (If no, notify	ding times able customer for a				Yes	V	No		Checked by: J. 7	19120
Special Han	dling (if app	olicable)								
15. Was client		The state of the s	with this order	?	Yes		No		NA 🔽	
By W Rega				Date Via:	eM	ail 🗌	Phone _] Fax	☐ In Person	
16. Additional	remarks:									
17. Cooler Inf	ormation									
Cooler N	the frame of the country of the coun	Condition	Seal Intact	Seal No	Seal D	ate	Signed	Ву		
1	0.7	Good	1					-		

Turn-Around Time: Chain-of-Custody Record 5 Day HALL ENVIRONMENTAL Client: Pima Environ menta ☐ Rush ANALYSIS LABORATORY Project Name: www.hallenvironmental.com Mailing Address: [60] PWyZo Emerold N. Turner Stp 500 Project #: Tel. 505-345-3975 Fax 505-345-4107 20715188 675-631-6977 Phone #: **Analysis Request** Chris (a) Pinal oil com email or Fax#: Project Manager: SO TPH:8015D(GRO / DRO / MRO) Total Coliform (Present/Absent) BTEX / MTBE / TMB's (8021) QA/QC Package: 8270SIMS CI, F, Br, NO₃, NO₂, PO₄, Chris Jones → Standard □ Level 4 (Full Validation) 8081 Pesticides/8082 Accreditation: ☐ Az Compliance Sampler: 8270 (Semi-VOA) On Ice: ☐ Yes □ NELAC □ No □ Other RCRA 8 Metals # of Coolers? 12-19 ☐ EDD (Type) EDB (Method 8260 (VOA) Cooler Temp(including CF): 0.5-0.1= 0.7-(°C) Container Preservative HEAL No. Sample Name Type and # Type 2007408 Date Time Matrix 3:30 Glass IGP -001 3:35 -002 3:40 -003 3,45 -004 3:50 -005 3:56 -006 -CO7 4:05 -008 -007

4901 Hawkins NE - Albuquerque, NM 87109 4:15 -010 4:20 Relinquished by: Received by: Remarks: 1540 Bill to Devon Relinguished by: 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 notated on the analytical report.

Turn-Around Time: F Day Chain-of-Custody Record HALL ENVIRONMENTAL Client: Pima Environ Menta □ Rush ANALYSIS LABORATORY Project Name: www.hallenvironmental.com Emerald Mailing Address: 1601 Al. Tumer Ste 500 Hobbs, NM 88260 4901 Hawkins NE - Albuquerque, NM 87109 Project #: Tel. 505-345-3975 Fax 505-345-4107 20715188 **Analysis Request** Phone #: Chris @ PimaDil, Com SO4 email or Fax#: Project Manager: TPH:8015D(GRO / DRO / MRO) Total Coliform (Present/Absent) BTEX / MTBE / TMB's (8021) 8270SIMS QA/QC Package: Chris Jones CI, F, Br, NO₃, NO₂, PO₄, ☐ Level 4 (Full Validation) 8081 Pesticides/8082 Accreditation: □ Az Compliance Sampler: 8270 (Semi-VOA) □ NELAC On Ice: PYes □ No ☐ Other RCRA 8 Metals PAHs by 8310 # of Coolers: 1 ☐ EDD (Type) EDB (Method 8260 (VOA) Cooler Temp(including CF): 0.8-0.1=0.7(°C) HEAL No. Container Preservative Sample Name 2007408 Type and # Time Type Date Matrix Glass 4:30 4:35 -014 4:40 -015 -016 4:50 -017 4:55 -018 Relinquished by: Received by: Remarks: Relinguished by:



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/ga/lab accred certif.html.

Cardinal Laboratories is accreditated 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.

Wite Sough

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

DTEV 0021D

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	110	% 42.2-15	6						

Analyzed By MC

Cardinal Laboratories *=Accredited Analyte

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Mile Sough

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: **DEVON - EDDY CO NM** Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/	kg	Analyze	ed 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 9	% 73.3-12	9						
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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	102 9	% 42.2-15	6						

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with Sigh

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

Applyzod By: MC

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

EMERALD 20 PWV #1H

Project Name: EMERALD 20
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.9	% 42.2-15	6						

Applyzod By: MC

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



Analytical Results For:

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

Received: 11/23/2020 Reported:

11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: **DEVON - EDDY CO NM** Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact Tamara Oldaker Sample Received By:

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 9	73.3-12	9						
Chloride, SM4500CI-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 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	93.8	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

11/25/2020 EMERALD 20 PWV #1H

Project Name: EMERALD 20 PWV
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.8	% 42.2-15	6						

Applyzod By: MC

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Mile Sough

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	96.2	% 42.2-15	6						

Applyzod By: MC

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

EMERALD 20 PWV #1H

Project Name: Project Number: NONE GIVEN

Project Location: **DEVON - EDDY CO NM** Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

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 9	73.3-12	9						
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 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	100 9	42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

EMERALD 20 PWV #1H

Project Name: EMERALD 20
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.0	% 42.2-15	6						

Applyzod By: MC

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

11/25/2020 EMERALD 20 PWV #1H

Project Name: EMERALD 20 PW Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil
Sampling Condition: Cool & Intact

Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg,	кд	Anaiyze	ea 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	92.5	% 42.2-15	6						
~									

Analyzed By: MC

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg,	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	90.2	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported:

11/25/2020 EMERALD 20 PWV #1H

Project Name: Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/kg Analyzed By: MS			d 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 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.1	% 42.2-15	6						

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

S-04



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 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	а ву: м5					5-04
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	214	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	111	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

: 11/25/2020

Project Name: EMERALD 20 PWV #1H
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	118	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported:

11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By:

Tamara Oldaker

S-04

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

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	ea By: MS					5-04
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	270	% 42.2-15	6						

Applyzod By: MC

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with Sigh

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

EMERALD 20 PWV #1H

Project Name: EMERALD 20
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

B1EX 8021B	mg	^и кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	100	% 42.2-15	6						

Applyzod By: MC

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Mile Sough

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

11/25/2020 EMERALD 20 PWV #1H

Project Name: EMERALD 20
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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	% 73.3-12	9						
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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	106	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Name: EMERALD 20 PW
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.3	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

Project Name: EMERALD 20 PWV #1H

Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	105	% 42.2-15	6						

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



Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

11/25/2020 EMERALD 20 PWV #1H

Project Name: EMERALD 20 PWV
Project Number: NONE GIVEN

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/19/2020

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	88.0	% 42.2-15	6						

Applyzod By: MC

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



11/19/2020

Cool & Intact

Tamara Oldaker

Soil

Analytical Results For:

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

Received: 11/23/2020 Reported: 11/25/2020

11/23/2020 Sampling Date: 11/25/2020 Sampling Type:

Sampling Condition:

Sample Received By:

Project Name: EMERALD 20 PWV #1H
Project Number: NONE GIVEN

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	% 73.3-12	9						
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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	96.2	% 42.2-15	6						

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



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

Received by OCD: 6/17/2021 12:00:12 AM

Released to Imaging: 7/29/2021 1:48:58 PM



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Pine Environmelal		BILL	70		ANALYSIS REC	UEST
Project Manager: Chris Dones		P.O. #: 207	15 745			
Address: 16-1 N. Turac		Company: De	ver			
11 - 94	240	Attn: Tom				
City: /- bbs State: N/W Zip: 00		Address:	/			
Phone #: 575-631-6977 Fax #: Project #: Project Owner: Devo		City:				
Toject II.		State: Zi	n:			
Project Name: Browned 20 PW11H		Phone #:				
Project Location: Eddy Sampler Name: Robert Care		Fax #:				
Sampler Name: Kabent lager	MATRIX	PRESERV.	SAMPLING			
Contraction and the contraction of the contraction				N		
Tap I.D. Sample I.D. # CONTAINERS # CONTAINERS GROUNDWATER	WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:		Chlor BRX TPH		
H003091	WAST SOIL OIL SLUD	OTH OTH OTH	DATE TIME	1		
100	X	1	19-20 3:00	[]		
2 8.15.3' 3 5.15.3' 4 5.16-1' 5 5.16-3' 4 5.16-3' 7 5.17-1'	1	1	7:16			
3 (15.9)			2:20			
4 6-16-1			2:20			
5 5.16-2			2:40			
4 6-16-3			3:00	+++++		
7 5-17-1						
			3:10	1/1/1/1		
9 5-12-3'			3:30			
PLEASE NOTE: Liability and Damagés. Cardinat's liability and client's exclusive remedy for any claim arising v	hether based in contrac	or tort, shall be limited to the	he amount paid by the client fo	or the		
analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waved to	hiess made in writing in	loss of use, or loss of profit	s incurred by client, its subsidia	aries,		
affiliates or successors arising out of or related to the performance of services hereunder by Cardina, regardle Relinquished By: Date: 11,33 To Receive	AS OF WITCHIEF SOUTH CHEEK	n is based upon any of the a	Verbal Re	esult: Yes N	o Add'l Phone #: provide Email address:	
Time: 4:58						
Relinquished By: Date: 23-70 Receive	ellara	aldak	REMARK		Ractoria (on	y) Sample Condition
Delivered By: (Circle One) Observed Temp. °C _4.5	Sample Condi Cool Intact	(Initia	1.	Rush	Cool Intact	Observed Temp. °C
Sampler - UPS - Bus - Other: Corrected Temp. °C	Yes Yes	es VO	Thermome	eter ID #97 #113	70. Yes Yes	Corrected Temp. °C
† Cardinal cannot acc						

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 7/29/2021 1:48:58 PM

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

CARDINAL Laboratories

City: Holds State: A Z Zip: 88848 Attn: Image Address: Address: Address: Address: Address: Address: City: City: Address: City:	
Address: //oel N. Turner City: Hollss State: A Z Zip: 88 340 Attn: Tom By Num Phone #: 575-631.6977 Fax #: Address: Project Ame: Energy Department City: Project Name: Energy Department City: Sampler Name: Post Cargan For Lab lie Orly Lab li.D. Sample I.D. Sample I.D. By Name Department City: Lab li.D. Sample I.D. By Name Department City: Lab li Li.D. Sample I.D. By Name Department City: Lab li Li.D. By Name Department City: Lab li Li.D. By Name De	
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analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Verbal Result: Yes No Add'l Phone #: All Results are emailed. Please provide Email address: Time: 6:558	
Relinquished By: Date: 23-70 Received By: Time 805 Januara Galaker	
Delivered By: (Circle One) Observed Temp. °C Sample Condition Cool Intact (Initials) Sampler - UPS - Bus - Other: Corrected Temp. °C Sample Condition Cool Intact (Initials) Thermometer ID #97 #1/3 7-9 Yes Yes Yes Correction Factor +0.4 C 16/23/20 No No Corrected Temp.	°C

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

Received by OCD: 6/17/2021 12:00:12 AM



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 7/29/2021 1:48:58 PM

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

Project Manager: Mris Some State: A7 Zip: 86040 Attn: 70 m By num. Address: 60 l N	Company Name:	(575) 393-2326 F		10							BI	LL TO					ANA	LYSI	S RE	QUE	ST		
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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/ga/lab accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Tamara Oldaker

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:

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg,	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	125	% 42.2-15	6						

Cardinal Laboratories *=Accredited Analyte

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 client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene



Tamara Oldaker

Sample Received By:

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

Project Location: DEVON - EDDY CO NM

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

RTFY 8021R

Result <0.050 <0.050 <0.050 <0.050 <0.150	Reporting Limit 0.050 0.050 0.050	Analyzed 12/01/2020 12/01/2020	Method Blank ND ND	BS 1.96	% Recovery 98.2	True Value QC	RPD	Qualifier
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<0.050		12/01/2020	ND			2.00	4.41	
	0.050		ND	1.89	94.3	2.00	4.60	
< 0.150	0.000	12/01/2020	ND	1.97	98.7	2.00	4.30	
	0.150	12/01/2020	ND	5.64	94.0	6.00	4.14	
<0.300	0.300	12/01/2020	ND					
101	% 73.3-12	9						
mg	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
64.0	16.0	12/01/2020	ND	416	104	400	0.00	
mg	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	12/01/2020	ND	208	104	200	5.58	
<10.0	10.0	12/01/2020	ND	180	89.9	200	12.1	
<10.0	10.0	12/01/2020	ND					
114	% 44.3-14	4						
118	% 42.2-15	6						
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Analyzed By: MC

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene



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) Sample Received By: Project Number: Tamara Oldaker

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	108 9	% 42.2-15	6						

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Analytical Results For:

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

Fax

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

Applyzod By: MC

Project Location: DEVON - EDDY CO NM

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

RTFY 8021R

B1EX 8021B	mg	/ kg	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	118	% 42.2-15	6						

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Analytical Results For:

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

Received: 11/30/2020 Reported: 12/03/2020

Project Name: EMERALD 20 PWU #1H

Project Number:

Project Location: DEVON - EDDY CO NM Sampling Date: 11/25/2020

Sampling Type: Soil

Sampling Condition: ** (See Notes) Sample Received By:

Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	ed 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	123	% 42.2-15	6						

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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 EMERALD 20 PWU #1H

Project Name: Sampling Condition: ** (See Notes) Sample Received By: Project Number: Tamara Oldaker

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg/	kg	Analyze	d 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 5	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	107 9	% 42.2-15	6						

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Tamara Oldaker

Sample Received By:

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

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg	/kg	Analyze	ed 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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	124	% 42.2-15	6						

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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) Sample Received By: Tamara Oldaker Project Number:

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 5	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	113 9	6 42.2-15	6						

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Analytical Results For:

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

Received: 11/30/2020 Reported: 12/03/2020

Project Name: EMERALD 20 PWU #1H

Project Number: 3

RTFY 8021R

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/25/2020

Sampling Type: Soil
Sampling Condition: ** (See Notes)

Sample Received By: Tamara Oldaker

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

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	122	% 42.2-15	6						

Applyzod By: MC

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Analytical Results For:

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

Received: 11/30/2020 Reported: 12/03/2020

Project Name: EMERALD 20 PWU #1H

Project Number:

Project Location: DEVON - EDDY CO NM Sampling Date: 11/25/2020

Sampling Type: Soil Sampling Condition: ** (See Notes)

Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	6 44.3-14	4						
Surrogate: 1-Chlorooctadecane	120 9	6 42.2-15	6						

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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) Sample Received By: Project Number: Tamara Oldaker

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	116 9	6 42.2-15	6						

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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)

RTFY 8021R

B1EX 8021B	mg	/кд	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	93.2	% 42.2-15	6						

Applyzod By: MC

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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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	89.9	% 42.2-15	6						

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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: **(

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes)
Project Number: 3 Sample Received By: Tamara Oldaker

Applyzod By: MC

Project Location: DEVON - EDDY CO NM

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

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	84.9	% 42.2-15	6						

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Analytical Results For:

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

Received: 11/30/2020 Reported: 12/03/2020

12/03/2020 EMERALD 20 PWU #1H

ma/ka

Project Name: EMERALD 20 F Project Number: 3

Project Location: DEVON - EDDY CO NM

Sampling Date: 11/25/2020

Sampling Type: Soil

Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

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

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	94.1	% 42.2-15	6						

Applyzod By: MC

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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

Analyzed By: MS

Project Location: DEVON - EDDY CO NM

mg/kg

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

BTEX 8021B

DIEX GOZID	1119/	<u>ng</u>	Allulyzo	u by. 1-15					
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 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.1	% 42.2-15	6						

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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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	86.2	% 42.2-15	6						

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11/25/2020

Soil

Analytical Results For:

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

Received: 11/30/2020 Sampling Date:

Reported: 12/03/2020 Sampling Type:

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	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	89.9	% 42.2-15	6						

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11/25/2020

Soil

Analytical Results For:

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

Received: 11/30/2020 Sampling Date: Reported: 12/03/2020 Sampling Type:

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes) Sample Received By: Tamara Oldaker

Project Number: 3

DEVON - EDDY CO NM Project Location:

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

BTEX 8021B	mg	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.2	% 42.2-15	6						

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11/25/2020

Soil

Analytical Results For:

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

Received: 11/30/2020 Sampling Date: Reported: 12/03/2020 Sampling Type:

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes) Sample Received By: Project Number: Tamara Oldaker

DEVON - EDDY CO NM Project Location:

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.9	% 42.2-15	6						

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Celeg D. Freene



Tamara Oldaker

Sample Received By:

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

Project Location: DEVON - EDDY CO NM

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

BTEX 8021B	mg	/kg	Analyze	ed 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	87.1	% 42.2-15	6						

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Tamara Oldaker

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:

Project Location: DEVON - EDDY CO NM

ma/ka

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

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	а ву: м5					
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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.6	% 42.2-15	6						

Applyzod By: MC

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Celeg D. Freene



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) Sample Received By: Project Number: 3 Tamara Oldaker

DEVON - EDDY CO NM Project Location:

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	91.4 9	42.2-15	6						

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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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 26 of 28

Released to Imaging: 7/29/2021 1:48:58 PM

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

Company Name:	Pima Environmental						T			BIL	L TO					AN	ALYSI	IS RE	QUES	T	
Project Manager	Chris Jones						1	2.0.	#: 2	0	115188	3									
- I Ject manager	Unis Jones										eval										
Address: /(e)	N. Turner St. 500	Zin	88	24	5						BYNUM										1 1
City: 4000	State: NM 964-4470 Fax #:	Zip.	00	- 10			-		ress:		7										1 1
Phone #:) /3-	Project Owne							City:													
Project #:	merald 20 PWU 1H						-1	State			Zip:		1	(I							1 1
Project Name:	Merald 20 PWU IT						- 1		ne #:												
Project Location	: Eddy Co NM Robert Carper						- 1	Fax													
Sampler Name: FOR LAB USE ONLY	ROBERT CAPPER	Т			MA	TRIX	_	_	RESE	RV.	SAME	PLING	1								
FOR DAB-USE ONE.		C)OMP.	SS.	TER	Y.								1	×	ride						
Lab I.D. H003128	Sample I.D.	(G)RAB OR (C	# CONTAINERS	GROUNDWATER	WASTEWATE	DIL	SLUDGE	OTHER:	ACID/BASE:	OTHER:	DATE	TIME	497	8TE	Chloride						
11-95.70	S-IW-Bottom	G							V		11.2520		1	1	-	-	-	-			
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4	S-IW-Side S-58-Bottom S-58-Side S-68-Side S-68-Bottom	11	L		4	1		-	-1			095	+	+	H	-					
5	S-65- Side	11	L	-	4	-	Н	-1		-	-	820	11	++							
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8	S-13E-Bottom	11			-	-	+					0935	11	11							
1 9	S-12N-Botton S-12N-Side	1							-		1	0945	1	1	T						

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affiliates or successors arising out of or related to the per Relinquished By:	Date: //-30-20 Time: /2:23		AldaKerl	Verbal Result:	es	vide Email addres	SS:
Relinquished By:	Date: Time:	Received By:	9	REMARKS:		t	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C	Cool illiact	(Initials)	Turnaround Time: Thermometer ID #113 Correction Factor None	Standard Rush	Cool Int	

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12:00:12 AM

Received by OCD: 6/17/2021

28

Page 27 of

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	There cho and	Hal								BI	IL	L TO					ΑN	ALYSI	SF	REQ	UEST			
Project Manage	r: Chris Jones							P.	0. #	207/	15	188							Т		\top	\top		
Address:	1601 N. Turner St. 500											WON		1										
City: Holb:	1601 N. Turner St. 500 State: NM	Zij	o: {	38	24	6						BYNO	w	1										
Phone #: 575	.964.7740 Fax#:								dres			7.	.,	1						-1				
Project #: 3	Project Owner	er:						Cit	ty:					1										
Project Name:	EMERALD PWW 1H							Sta	ate:		Zi	ip:		1										
Project Location	: Eddy G NM Robert Carper							Ph	one	#:				1										
Sampler Name:	Robert Carper							Fa	x #:					1										
FOR LAB USE ONLY	,	L	Г		N	IATRI	Х		PRE	SERV.	T	SAME	LING	1						1				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL OTHER:		DATE	TIME	Hd.L	BTEX	Chloride								
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12	9-11 W-Side S-148-Side S-148-Bollom	li				1					ľ	1	10:05											
13	S-148-Side	\square											10:10											
14	S-148-BoHom	П						-					10:15											
15	5-23-1	\mathbf{H}	L								L		10:20											
14	S-23-2'	11								Ш			10:25											
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	5-24-1'	\mathbf{H}									-	-	10:35		_		-	-	-	-	-	-	-	+
20	S-24-21 S-24-31	L										1	10:40				-	+	-	+	+		-	+
	Damages. Cardinal's liability and client's exclusive remedy for	any clair	n arisir	on who	her has	sed in or	ontract (or tort	chall h	e limited to	In the	a amount paid	by the client for	lba l						\perp				

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Relinquished By:	Date: //-3020 Time: //-30	110	Oldato	Verbal Result: All Results are emaile		Add'I Phone #: vide Email address:	
Relinquished By:	Date: Time:	Received By:	and the same	REMARKS:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C	Sample Condit Cool Intact ☐ Yes ☐ Ye	(Initials)	Turnaround Time: Thermometer ID #113 Correction Factor None	Standard Rush	Bacteria (onl Cool Intact Yes Yes No No	

12:00:12 AM

Received by OCD: 6/17/2021

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL

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

Company Name	15/9) 393-2326 FAX (5/5) 393-20	70					T			BIL	LL	TO					A	NALY	/SIS	REQ	UEST		_	_
Project Manager	: Chris Jones						1	P.O.	#: 2	2071	151	188			-11									
Address: //a/	1 N Turner St. 500							Com	pan	y: 🛆)eu	ON												
City: Halabs	State: NM	Zip	88	824	60		1	Attn	To	al 1	By	MAM												
	.964.07740 Fax#:						_		ress		,													
Project #: 3	Project Owne	r:					-	City	:														1	
Project Name: /	Enerald 20 PWU 14						_	Stat	e:		Zip	o:												
Project Location	: Eddy Co NM						-	Pho	ne #	:				1										
Sampler Name:	Robert Carper	_				TD	_	Fax	#: PRES	EDV	_	SAME	ING	1										
FOR LAB USE ONLY		۵.			MA	TRIX		ľ	KES	ERV.	1	SAMI	Lino	1		6,	- 1							
Lab I.D. H003128 31 32 33	Sample I.D.	S(G)RAB OR (C)OM	# CONTAINERS	GROUNDWATER	WASTEWATER	OIL	SLUDGE	OTHER:	ACID/BASE:	OTHER:	11	DATE	TIME	that.	BTEX	- Chloria								
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	nd Damages. Cardinal's liability and client's exclusive remedy for	1	L		berbe	od in a	onfraci	or tort	shall by	e limited	d to the	e amount na	id by the client for	or the										

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affliates or successors arising out of or related to the per Relinquished By:	Date: Time:	Receive	buara b	ldat of	Verbal Result: ☐ You All Results are emailed		I Phone #: mail address:
Relinquished By:	Date:	Receive	ed By:		REMARKS:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C		Sample Condition Cool Intact Yes Yes No No	CHECKED BY: (Initials)	Turnaround Time: Thermometer ID #113 Correction Factor None	Standard Rush	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes Yes No No Corrected Temp. °C

Page 28 of 28

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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/ga/lab accred certif.html.

Cardinal Laboratories is accreditated 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)

Celey D. Keene

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,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

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

Received: 12/10/2020 Reported: 12/14/2020

EMERALD 20 PWU #1H

Project Number:

Project Name:

Project Location: DEVON - EDDY CO NM Sampling Date: 12/10/2020

Sampling Type: Soil

** (See Notes) Sampling Condition: Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg,	/kg	Analyze	d 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	81.5	% 42.2-15	6						

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Analytical Results For:

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

Received: 12/10/2020 Reported: 12/14/2020

12/14/2020 EMERALD 20 PWU #1H

Project Name: EMERALD 20 PWU
Project Number: 3

Project Location: DEVON - EDDY CO NM

Sampling Date: 12/10/2020

Sampling Type: Soil

Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg	/kg	Analyze	ed 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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.6	% 42.2-15	6						

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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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	'kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	82.2	% 42.2-15	6						

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Tamara Oldaker

Sample Received By:

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

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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.9	% 42.2-15	6						

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12/10/2020

Soil

Analytical Results For:

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

Received: 12/10/2020 Sampling Date: Reported: 12/14/2020 Sampling Type:

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes) Sample Received By: Tamara Oldaker

Project Number:

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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	85.6	% 42.2-15	6						

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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	% 73.3-12	9						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	80.3	% 42.2-15	6						

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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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	83.4	% 42.2-15	6						

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12/10/2020

Soil

Analytical Results For:

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

Received: 12/10/2020 Sampling Date: Reported: 12/14/2020 Sampling Type:

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes) Sample Received By: Project Number: 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 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	75.7	% 42.2-15	6						

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Analytical Results For:

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

Received: 12/10/2020 Reported: 12/14/2020

Project Name: EMERALD 20 PWU #1H

Project Number: 3

Project Location: DEVON - EDDY CO NM

Sampling Date: 12/10/2020

Sampling Type: Soil

Sampling Condition:

Sample Received By: Tamara Oldaker

** (See Notes)

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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	79.7	% 42.2-15	6						

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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: **(

Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes)
Project Number: 3 Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: DEVON - EDDY CO NM

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

RTFY 8021R

B1EX 8021B	mg,	^и кд	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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	86.6	% 42.2-15	6						

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Sample Received By:

12/10/2020

Tamara Oldaker

Analytical Results For:

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

Received: 12/10/2020 Sampling Date: Reported: 12/14/2020 Sampling Type:

Reported: 12/14/2020 Sampling Type: Soil
Project Name: EMERALD 20 PWU #1H Sampling Condition: ** (See Notes)

Project Number: 3

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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 44.3-14	14						
Surrogate: 1-Chlorooctadecane	78.8	% 42.2-15	6						

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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	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	80.4	% 42.2-15	6						

72.2 130

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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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

16

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

(575) 393-2326 FAX (575) 39	3-24/6	_	_					BI	LL	TO					ANA	LYSIS	REC	QUES	Г		
Company Name: Pina Engironmetal						P.C	o. #:			71518	8										
Project Manager: Chris Tones	-1 -	<u> </u>				-				evon	0		- 1								
Address: 1661 N. Turner	Ste 5	,00		60						thews	,										
City: Holis State: N	Zip	: '	882	280					ren	1.160											
Phone #: 964-7740 Fax #:		Λ		_			dres	s:													
Project #: 3 Project On	wner:	De	VOY	1		Cit	ty:				-										
Project Name: Enerald 20 PNUL	1 11	1				Sta	ate:		Zij	p:											
Project Location: Eddy Co NM						Ph	none	#:													
Sampler Name: Robert Carper						Fa	x #:		_		1110										
FOR LAB USE ONLY				MAT	RIX	-	PRE	SERV	/-	SAMPL	LING			18							
Lab I.D. Sample I.D. H03237 1 5-65-Botton 2 5-65-Side 3 5-9E-Side 4 5-9E-Botton 5 5-22N-Side 6 5-22N-Side 7 5-24N-Side 8 5-24N-Botton	A (G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWALER	TIO	OTHER	ACID/BASE:	ICE / COOL	4	DATE //// 20	TIME 9:00 9:10 9:30 9:30 9:40 9:58 10:00 10:16	HUL 8	Y STEX	- Chlus							
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Sampler - UPS - Bus - Other:

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

16

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Yes Yes
No Corrected Temp. °C

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-		BILL TO	ANALYSIS REQUEST
Company Name: Prina (Zhvironmed	d	P.O. #: 20715 188	
Project Manager: Chris Jones	5k 500	Company: Devon	
() ()		Attn: Wes Mathews	
11030	M Zip: 88 280	Address:	
Phone #: 964. 7740 Fax #:			
Project #: 3 Project Own	ner:	City:	
Project Name: Dimended 20 PWU	14	State: Zip:	
Project Location: Eddy Co & M Sampler Name: Rubart Carps		Phone #:	
Sampler Name: Rubboy Carpy	MATRIX	Fax #: PRESERV. SAMPLING	
FOR LAB USE ONLY		THEOLEN,	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL	SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: AUD	STRY Chlo.
11 5-21.5 5540	C X	2 12/0/20 10.46	12/2/
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analyses. All claims including those for negligence and any other cause whatsoever so	A County Sentation business interru	entions loss of use, or loss of profits incurred by client, its subsidia	the applicable aries,
affiliates or successors arising out of or related to the performance of services heredisc	er by Cardinal, regardless of whether suc Received By:	. Verhal Re	genit. And Month Add Friotie #.
12-/c		All Results	ts are emailed. Please provide Email address:
W. A /a Time: 4:3	Munar	a college of REMARK	KS:
Refinquished by: Date: /4:	Received By:	/ REMARK	
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Delivered By: /Circle One) Observed Temp	o. °C /37 Sample C	ondition CHECKED BY: Turnarous	und Time: Standard Bacteria (only) Sample Condition Rush Cool Intact Observed Temp. °C

Correction Factor None

(Initials)

Cool Intact

Corrected Temp, °C

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



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/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500CI-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	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	80.6	% 38.9-14	2						

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05/03/2021

Soil

Analytical Results For:

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

Received: 05/04/2021 Sampling Date: Reported:

05/06/2021 Sampling Type: Project Name: **EMERALD PWV 20** Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **DEVON**

Sample ID: S 3 - 2' (H211127-02)

BTEX 8021B	mg	/kg	Analyze	d 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	% 69.9-14	0						
Chloride, SM4500Cl-B	/kg	Analyze	d 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	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	83.9	% 38.9-14	2						

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05/03/2021

Soil

Analytical Results For:

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

Received: 05/04/2021 Sampling Date:
Reported: 05/06/2021 Sampling Type:

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	Analyze	ed 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	% 69.9-14	0						
Chloride, SM4500CI-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	Analyze	ed 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	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	80.4	% 38.9-14	22						

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05/03/2021

Soil

Analytical Results For:

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

Received: 05/04/2021 Sampling Date:
Reported: 05/06/2021 Sampling Type:

Project Name: EMERALD PWV 20 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: DEVON

Sample ID: S 7 - 2' (H211127-04)

BTEX 8021B	mg,	/kg	Analyze	ed 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	2 95.3	6.00	9.45	
Total BTEX	<0.300	0.300	05/05/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.3	% 69.9-14	10						
Chloride, SM4500CI-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	% 44.3-13	23						
Surrogate: 1-Chlorooctadecane	83.2	% 38.9-14	12						

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Celey D. Keene



05/03/2021

Soil

Analytical Results For:

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

Received: 05/04/2021 Sampling Date: Reported: 05/06/2021 Sampling Type:

Project Name: **EMERALD PWV 20** Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: **DEVON**

Sample ID: S 8 - 2' (H211127-05)

BTEX 8021B	mg/	kg	Analyze	d 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		% 69.9-14	0						
Chloride, SM4500CI-B	oride, 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						
Surrogate: 1-Chlorooctadecane	83.6	% 38.9-14	2						

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Celeg D. Freene



05/03/2021

Soil

Analytical Results For:

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

Received: 05/04/2021 Sampling Date:
Reported: 05/06/2021 Sampling Type:

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)

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	5.72 95.3	6.00	9.45	
Total BTEX	<0.300	0.300	05/05/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.3	% 69.9-14	0						
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	Analyze	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	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	79.4	% 38.9-14	2						

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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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 9 of

Released to Imaging: 7/29/2021 1:48:58 PM

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

Company Name: Devon Energy / PIMA Project Manager: Tom By num Address: (60) N. Turner Ste 500 Company: Devon	
Address: 1601 N. Turner Ste 500 Company: Devon	
hadroon ((D) Al Direct of the second	1 1 1
City: Hobbs State:NM Zip: 88240 Attn:	
Phone #: 580 - 748 - 1613 Fax #: Address:	
Project #: Project Owner: City:	
Project Name: Emerald PWV 20 State: Zip:	
Sampler Name: 5.0	
FOR LAB USE ONLY MATRIX PRESERV. SAMPLING	
Tap I.D. Sample I.D. Scorr Ainers GROUNDWATER WASTEWATER OTHER: OIL	
1 52-2' GI X X 5/3/21 X X X	
1 52-2' 61 X X X X 2 5/3/21 X X X X 3 54-2' 4 57-2'	
3 54-a'	
4 57-2'	
5 58-2'	
6 510-21	

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affliates or successors arising out of or related to the perfor	mance of services horounder by Cardinal, it	egardless of whether such claim is based upon any of the above stated re	oschs or otherwise.
Relinguished By:	Date: //2 / Reco	ceived By:	Verbal Result: ☐ Yes ☐ No Add'I Phone #:
(1)	15/4/21		All Results are emailed. Please provide Email address:
1	Times	12 mar + 1/1 d - 1/1	
Lolons Com	- 08200	Jumara villas ve	
Relinguished By:	Date: Rec	ceived By:	REMARKS:
1			0 0 1/
	Time:		Bill Devon Greetly.
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition CHECKED BY:	Turnaround Time: Standard Bacteria (only) Sample Condition
Donition by: (emoio emo)	3,0	Cool intact (initials)	Rush Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Yes Yes	Thermometer ID #113
Complete C. C. Dub Cultur		□ No □ No Y T	Correction Factor None Nc No Corrected Temp. °C

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



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

<u>District I</u> 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 NM OIL CONSERVATION

State of New Mexico

ARTESIA DISTRICT

Form C-141 Revised August 8, 2011

Energy Minerals and Natural Resources

JUN 2 9 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Oil Conservation Division 1220 South St. Francis Dr.

BECETVED

istrict IV 220 S. St. Fran	cis Dr., Santa	Fe, NM 87505	9			, NM 875	05	RECEI				
			Rele	ase Notific			rrective A	ction				
NAB17	1873	3399				OPERAT	OR		M Initia	al Report	L F	Final Repo
lame of Co	ompany D	evon Energy	Product	ion Company (1370	Contact D	anny Velo, Proc	fuction	Foreman			
ddress 64	88 Seven I	Rivers Hwy	Artesia, N	NM 88210		l'elephone i	10. 5/5-105-55	60				
acility Na	me Emera	ld PWU 20 1	Н		1	Facility Typ	e OII					
Surface Ov	vner State			Mineral	Owner :	State			API No	30-015-38	3338	
				LOCA	ATION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the		Vest Line	County		
D	20	198	29E	400`		FNL	330'	F	WL	Eddy		
			Las	titude: 32.6525	154	Lon	gitude: -104.104	15456				
			La	25,200								
				NA	UKE	OF REL	Release .5bbls	oil &	Volume	Recovered		
ype of Rel							duced water	0 0	Obbls rec	overed		
ource of R						Date and l	Hour of Occurre	nce		Hour of D		
Vater dump	on three-ph	ase separator					017 @ 7:00 PM		June 28,	2017 @ 7:00) PM	-
	liate Notice	Given?	Yes [No □ Not R	equired	If YES, To Shelly Tuc						
						Mike Brate						
By Whom?	Jesse Arme	ndariz, Asst. I	Production	Foreman		Shelly Tuc Mike Brate	hour ker, BLM June 2 ther, OCD June 2	8, 2017 28, 2017	@ 9:38 PN @ 9:40 PN	И М		
Was a Wate	ercourse Re	eached?	Yes 🗵	No No		If YES, V	olume Impacting	g the Wa	atercourse	:		
N/A		mpacted, De								.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Three-phase	separator w	as being bled	down who	tion Taken.* en gas and sand of e separator were	cut the wa isolated.	ater dump. T	he wells producir	ng to the	battery we	ere shut in to	stop the	flow to the
A	ale Shhlen	d and Cleanu il and 4.5bbls 13' x 12' on k	produced	water were releas	sed on to	location. Al	fluid remained of tacted to assist w	on location	on and Obbeation and	ols were reco	overed, T	he affecte
regulations a public health should their or the environ	all operators h or the env operations onment. In	ironment. The	to report a e acceptan adequatel OCD acce	and/or file certain acc of a C-141 report investigate and	release n port by th	e NMOCD n	knowledge and and perform corre- narked as "Final I ion that pose a the ve the operator of	Report" of reat to g	does not re round wate sibility for	lieve the ope er, surface w compliance	erator of vater, hun with any	liability nan health
	Sheila F						OIL CON	ISERV	ATION	A (2N 1 1	M
Printed Nan	ne: Sheila F	isher				Approved by	Environmental :	Specialis	st: W	Dux	V	, –
Title: Field	Admin Suj	pport				Approval Da	ate: 7/3/1	7	Expiration	Date: N	14	
E-mail Add	ress: Sheila	.fisher@dvn.	com			Conditions of	of Approval:	he	el	Attache		
Date: 6/29			one: 575.7	748.1829	are refe	r to the Nev	w Mexico Oil				100	100
		eets If Neces	sary	Co	nservati	on Division	Website for			(ARIA	428

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

000/1----- beaml

Thank unii



New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

No records found.

PLSS Search:

04: NW

Section(s): 20

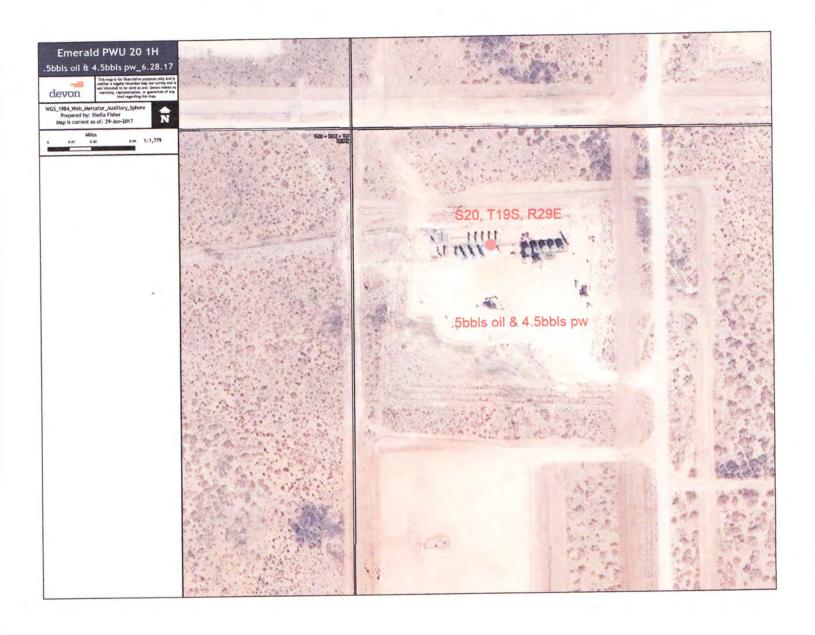
Township: 19S

Range: 29E

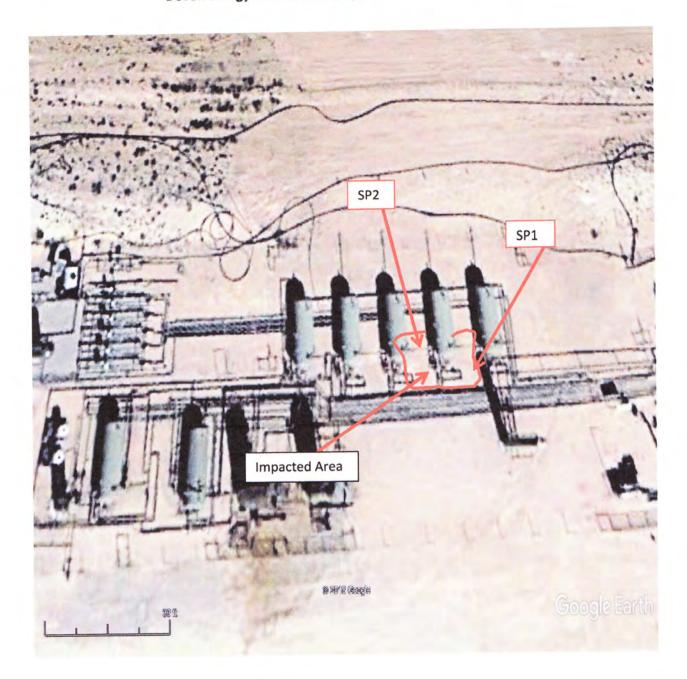
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability, or suitability for any particular purpose of the data.

2/21/18 8:13 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Devon Energy Production Company - Emerald PWU 20 1H



Devon Energy Production Company-Emerald PWU 20 1H











Company	Devon	- Here
Date	3/29/2018	
Location	emerald pwu	

Chloride Field Test

Sample PT	Depth	Results
SP1	SURFACE	N/D
SP1	6 INCHES	350
SP1	1FT	376
SP1	2FT	1224
SP1	3FT	774
SP1	4FT	350
SP1	5FT	158
SP1	6FT	140
	-	
	-	
	-	

Sample PT	Depth	Results
SP2	SURFACE	470
SP2	6 INCHES	98
SP2	1FT	542
SP2	2FT	158
SP2	3FT	84
312	3	
	3 (2)	
	1	
-		
-	4	



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/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

A ... - L ... - - - I D. .. MC

Project Location: EDDY COUNTY, NM

Sample ID: SP 1 SURFACE (H800457-01)

Result <0.100 0.244 0.939	Reporting Limit 0.100 0.100	Analyzed 02/16/2018 02/16/2018	Method Blank	BS 1.93	% Recovery	True Value QC	RPD	Qualifier
0.244 0.939			ND	1.93				
0.939	0.100	02/16/2018		2.50	96.4	2.00	0.257	
		02/10/2010	ND	1.87	93.4	2.00	1.08	
	0.100	02/16/2018	ND	1.86	92.9	2.00	0.341	
5.72	0.300	02/16/2018	ND	5.51	91.8	6.00	0.357	
6.90	0.600	02/16/2018	ND					
134	% 72-148							
mg,	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
96.0	16.0	02/15/2018	ND	432	108	400	3.77	
mg,	/kg	Analyze	d By: MS					S-06
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
285	50.0	02/15/2018	ND	197	98.6	200	5.05	
22500	50.0	02/15/2018	ND	216	108	200	24.8	
3990	50.0	02/15/2018	ND					
129	% 41-142							
505	% 37.6-14	7						
_	6.90 134 : mg/ Result 96.0 mg/ Result 285 22500 3990	6.90 0.600 134 % 72-148 mg/kg Result Reporting Limit 96.0 16.0 mg/kg Result Reporting Limit 285 50.0 22500 50.0 3990 50.0	6.90 0.600 02/16/2018 134 % 72-148 mg/kg Analyze Result Reporting Limit Analyzed 96.0 16.0 02/15/2018 mg/kg Analyze Result Reporting Limit Analyzed 285 50.0 02/15/2018 22500 50.0 02/15/2018 3990 50.0 02/15/2018	6.90 0.600 02/16/2018 ND 134 % 72-148 mg/ky Analyzed By: AC Result Reporting Limit Analyzed Method Blank 96.0 16.0 02/15/2018 ND mg/ky Analyzed By: MS Result Reporting Limit Analyzed Method Blank 285 50.0 02/15/2018 ND 22500 50.0 02/15/2018 ND 3990 50.0 02/15/2018 ND	6.90 0.600 02/16/2018 ND 134 % 72-148 mg/ky Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS 96.0 16.0 02/15/2018 ND 432 mg/ky Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS 285 50.0 02/15/2018 ND 197 22500 50.0 02/15/2018 ND 216 3990 50.0 02/15/2018 ND	6.90 0.600 02/16/2018 ND 134 % 72-148 mg/ky Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS % Recovery 96.0 16.0 02/15/2018 ND 432 108 mg/ky Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery 285 50.0 02/15/2018 ND 197 98.6 22500 50.0 02/15/2018 ND 197 98.6 3990 50.0 02/15/2018 ND 216 108 129 % 41-142	6.90 0.600 02/16/2018 ND 134 % 72-148	6.90 0.600 02/16/2018 ND 134 ⅓ 72-148 mg/kg Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 96.0 16.0 02/15/2018 ND 432 108 400 3.77 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 285 50.0 02/15/2018 ND 197 98.6 200 5.05 22500 50.0 02/15/2018 ND 216 108 200 24.8 3990 50.0 02/15/2018 ND

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Celey D. Keene



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

EDDY COUNTY, NM

Project Name: EMERALD PWU 201 H Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: SP 1 1' (H800457-02)

Project Location:

BTEX 8021B	mg,	/kg	Analyze	d 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, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	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	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keine



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

Analyzed By: MC

Project Location: EDDY COUNTY, NM

ma/ka

Sample ID: SP 1 2' (H800457-03)

RTFY 8021R

B1EX 8021B	mg/	кд	Anaiyze	а ву: м5					
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 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	7						

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Celey D. Keene, Lab Director/Quality Manager

Released to Imaging: 7/29/2021 1:48:58 PM



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

EDDY COUNTY, NM

Project Name: EMERALD PWU 201 H Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Sample ID: SP 2 SURFACE (H800457-04)

Project Location:

BTEX 8021B	mg/	/kg	Analyze	d 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 9	% 72-148	}						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	210 9	% 37.6-14	7						

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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 1' (H800457-05)

BTEX 8021B	mg,	/kg	Analyze	ed 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 9	% 72-148	}						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed 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	Analyze	ed 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	% 37.6-14	7						

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ma/ka

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 HSampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi HensonProject Location:EDDY COUNTY, NM

Applyzod By: MC

Sample ID: SP 2 2' (H800457-06)

RTFY 8021R

Analyte zene* enes*	Result <0.050 <0.050	Reporting Limit 0.050 0.050	Analyzed 02/16/2018	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
zene*	<0.050		02/16/2018	ND					
zene*		0.050		ND	1.93	96.4	2.00	0.257	
	40 OFO	0.000	02/16/2018	ND	1.87	93.4	2.00	1.08	
ines*	<0.050	0.050	02/16/2018	ND	1.86	92.9	2.00	0.341	
,1100	<0.150	0.150	02/16/2018	ND	5.51	91.8	6.00	0.357	
EX	<0.300	0.300	02/16/2018	ND					
e: 4-Bromofluorobenzene (P	ID 103 %	% 72-148	,						
SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
1	224	16.0	02/15/2018	ND	432	108	400	3.77	
5М	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
C10*	<10.0	10.0	02/15/2018	ND	197	98.6	200	5.05	
.0-C28*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
>C28-C36	<10.0	10.0	02/15/2018	ND					
e: 1-Chlorooctane	97.1 9	% 41-142	ı						
	97.3 9	% 37.6-14	7						
	97.1 9	% 41-142	02/15/2018	ND					

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Notes and Definitions

The control of this company is a heider and all limite days to consider the first control of the control of the

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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Hungry Horse, 110	BILL TO	ANALYSIS REQUEST	-
Company Name: Hungry Horse, LLC Project Manager: Vernon K. Black	P.O. #:	ANALISIS REQUEST	
ddress: P.O. Box 1058	Company:		
ity: Hobbs State: NM Zip: 8824/	Attn:		
hone #: 575-393-3381 Fax #: 575-891-4585	Address:		
roject #: Project Owner: DEVOW	City:		1
roject Name: Emerald PWU	State: Zip:		
roject Location:	Phone #:		
empler Name: Alberto Barraza	Fax #:		1
OR LAB USE ONLY MATRIX	PRESERV SAMPLING	-	
MM		1 X +	
Tab I.D. Sample I.D. (G)RAB OR (C)O CONTAINERS GROUNDWATER WASTEWATER SOIL		1 25	
Tab I.D. Sample I.D. (G)RAB OR (C)C GRANGINERS GROUNDWATE RASTEWATER SOIL	SE JO		
SOIL SOIL	SLUDGE OTHER: ACID/BASE ICE / COOL OTHER: AMIL STAD	1207	
800421 (G)# (G)# (G)# (G)# (G)# (G)# (G)# (G)#	MIT STAD OF THE	1901	
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3 50 2'	8:20		. 1
4 Sp2 Severace	8:30		
2562 1	840		
0 SP62'	8:50		
E NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in centre.			
ss. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption.	and received by Cardinal within 30 days after completion of	If the applicable	
es or successors arising out of or related to the performance of services bereunder by Cardinal yearnless of whether such da inquished By:	is, loss of use, or loss of profits incurred by client, its subsidi in its based upon any of the above stated reasons or otherwi	wise.	
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mpler - UPS - Bus - Other: 440 4 650 Tes T	(hidials)		

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.

<u>MIKE</u>: There are two more release events open on this site: $\underline{\mathbf{2RP-779}}$ (26 bbl oil & PW release in 2011) and $\underline{\mathbf{2RP-4109}}$ (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 youhave 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

Page 161 of 162

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 NM.	AC
Photographs of the remediated site prior to backfill or photos of the must be notified 2 days prior to liner inspection)	liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC Distr	ict 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 and regulations all operators are required to report and/or file certain releast may endanger public health or the environment. The acceptance of a C-14 should their operations have failed to adequately investigate and remediate human health or the environment. In addition, OCD acceptance of a C-14 compliance with any other federal, state, or local laws and/or regulations. restore, reclaim, and re-vegetate the impacted surface area to the condition accordance with 19.15.29.13 NMAC including notification to the OCD where the condition is the occupance of the occupance occupance of the occupance occupance of the occupance	se notifications and perform corrective actions for releases which I report by the OCD does not relieve the operator of liability contamination that pose a threat to groundwater, surface water, I report does not relieve the operator of responsibility for The responsible party acknowledges they must substantially is that existed prior to the release or their final land use in
Printed Name: Tom Bynum Title	EHS Consultant
Signature: Tom Bynum Date:	10-21-20
Signature: Tom Bynum Date: email: tom.bynum@dvn.com Telepho	ne: <u>575-748-2663</u>
OCD Only	
Received by: Robert Hamlet	Date:
Closure approval by the OCD does not relieve the responsible party of liab remediate contamination that poses a threat to groundwater, surface water, party of compliance with any other federal, state, or local laws and/or regularity	human health, or the environment nor does not relieve the responsible
Closure Approved by: Robert Hamlet	Date: <u>7/29/2021</u>
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

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:	OGRID:
Pima Environmental Services, LLC	329999
1601 N. Turner	Action Number:
Hobbs, NM 88240	32360
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created E	y 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