

March 25, 2020

Bradford Billings Hydrologist District 2 Artesia Oil Conservation Division Santa Fe, NM 87505 Hobbs, New Mexico, 88240

Subject: Closure Letter Report

ConocoPhillips

Emerald Federal No. 6 Flowline Release

1RP-4681

Lea County, New Mexico

Mr. Billings:

On behalf of ConocoPhillips (COP), Tetra Tech, Inc. (Tetra Tech) submits the following Closure Report for review. The ConocoPhillips Emerald Federal No.6 well (API # 30-025-40892) is located approximately 2 miles southwest of Maljamar in Lea County, New Mexico. The coordinates of the well are 32.8369255°, -103.7833252°. The release occurred on the well pad at approximately 32.836998°, -103.783392°.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), on April 17, 2017, a Multi-Skill Operator (MSO) discovered a release from a flowline located on the Emerald Federal No. 6 well pad that resulted in a release of 4 barrels (bbls) of produced water and 2 bbls of oil. Impacted areas were limited to the engineered well pad. The release was reported to the New Mexico Oil Conservation District (NMOCD) later that day. The incident was assigned remediation permit (RP) 1RP-4681.

INITIAL RESPONSE

Per 19.15.29.8 B. (4) NMAC, the responsible party may commence remediation immediately after discovery of a release. According to COP personnel, initial response activities conducted by COP were to excavate approximately 6,500 square feet of visually impacted soil within the release extent to an approximate depth of 1 foot (ft) below ground surface (bgs). The immediate area surrounding the well head and pumping unit were backfilled to minimize hazards to onsite workers. The approximate release area is indicated in Figure 1

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a low karst potential area.

Based on data from the New Mexico Office of the State Engineer (NMOSE), there are no water wells located in Section 17, Township 17 South, Range 32 East. Water well data from Township 17 South, Range 32 East show an average depth to groundwater of 126 ft. The groundwater data and karst map are shown in Attachment B.

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A risk-based evaluation was performed for the Site in accordance with the NMOCD guidelines to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil. Based on the site characterization, the RRALs for the Site are as follows:

Constituent	RRAL
Chloride (0 – 4 ft bgs)	600 mg/kg
Chloride (>4 ft bgs)	20,000 mg/kg
TPH (GRO+DRO+ORO)	2,500 mg/kg
GRO+DRO	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg
Benzene	10 mg/kg

SITE ASSESSMENT ACTIVITIES

On February 13, 2018, COP personnel were onsite to conduct site assessment activities. Three (3) sample location points (PT #1 through PT#3) within the release area were sampled and a total of 21 samples from various depth intervals were collected and submitted to Cardinal Laboratory (Cardinal) in Hobbs, NM for analysis. Selected samples were placed into laboratory provided sample containers, transferred under chain of custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) by Method 8015 modified, chlorides by method SM4500Cl-B, and benzene, toluene, ethylbenzene, and xylene (known collectively as BTEX) by EPA Method 8021B. Copies of the analytical reports and chain-of-custody documentation are included in Attachment C. The sampling results are summarized in Table 1. Sample locations are depicted on Figure 1.

As shown in Table 1, the analytical results associated with these selected samples were below the proposed RRALs for benzene, total BTEX, and TPH. Chloride was detected at a concentration above 600 mg/kg in the PT #1 sample depth interval of 3 - 4 ft bgs (1040 mg/kg), however, the analytical results from the subsequent depth interval 4 - 5 bgs were below 600 mg/kg for chloride.

REMEDIAL ACTIVITIES

In early 2018, COP personnel were onsite to conduct the excavation and remediation activities at the Site. The excavated areas and depths of excavation are shown on Figure 2. The excavated areas ranged from 1.0 to 3.0 feet below ground surface. The excavation widths and depths were guided based on visual observation and the assessment sampling data to properly remove the impacted soils. An attempt to further vertically delineate the eastern area of impact at depth resulted in cross-contamination. The chloride result associated with sample #1-13' (2120 mg/kg) is not representative of in-situ conditions. SP-1A was drilled as an offset confirmation point and the chloride result (288 mg/kg) at the 13' depth was well below the 600 mg/kg threshold.

On April 9 and April 17, 2018, confirmation samples were collected from the sidewalls and floors (bottom) of the excavations to confirm that the impacted materials were properly removed. A total of 11 confirmation samples were collected during the remedial activities. Selected samples were placed into laboratory provided sample containers, transferred under chain of custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH, chlorides, and BTEX. Copies of the analytical reports and chain-of-custody documentation are included in Attachment C. The confirmation sampling results are summarized in Table 2. Confirmation sample locations are depicted on Figure 2.

As shown in Table 2, the analytical results associated with these selected samples were below the proposed RRALs for chloride, benzene, total BTEX, and TPH. As mentioned above, chloride was previously detected at a concentration above the RRAL in the PT #1 sample depth interval of 3 - 4 ft bgs, however, the analytical results from the subsequent depth interval 4 - 5 bgs were below 600 mg/kg for chloride. In this case, given the depth to groundwater in the area and that the vertical extent contamination

TETRA TECH

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is fully delineated, the remaining contaminants will not pose a threat to present or foreseeable beneficial use of fresh water, public health and the environment.

VISUAL SITE INSPECTION

At the request of COP, on October 24, 2019 Tetra Tech personnel conducted a visual site inspection assessment of the release area denoted in the CAP to evaluate current site conditions. Photographic documentation from the visual assessment is included as Attachment D. A list of field observations describing the Site follow:

No evidence of staining was noted at the point of release or on the surrounding caliche pad.

CONCLUSION

Based on the documented and observed remediation work performed at the site, ConocoPhillips requests closure for this release. The final C-141 form is enclosed in Attachment A.

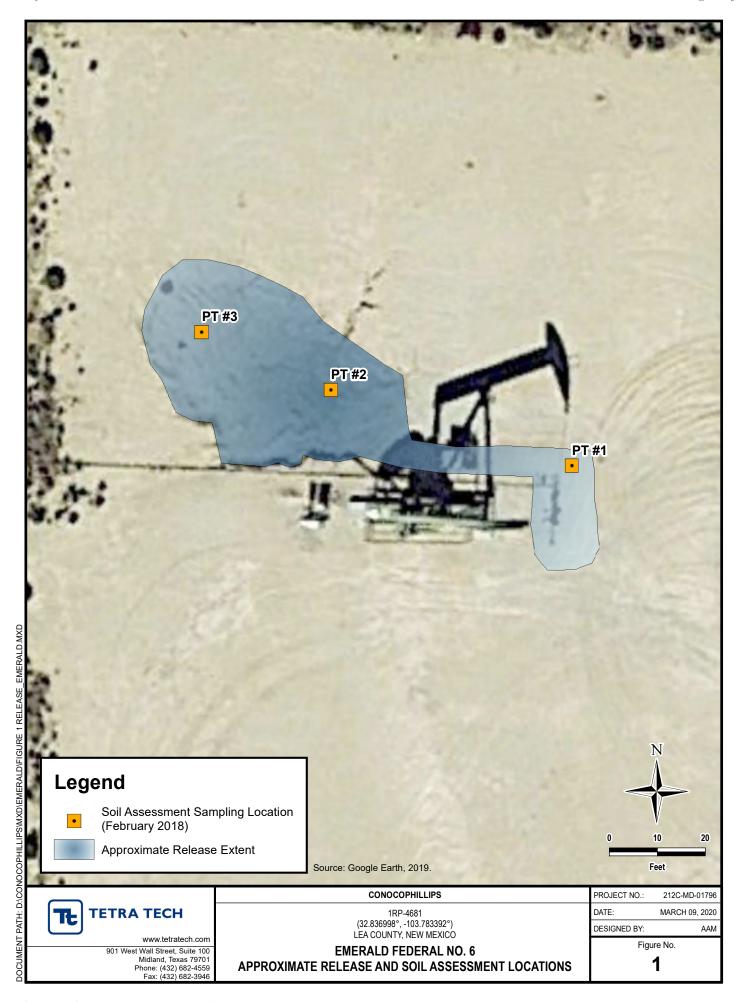
Should you have any questions or comments regarding this report, please do not hesitate to contact me by telephone at 512-338-2861 or by email at christian.llull@tetratech.com.

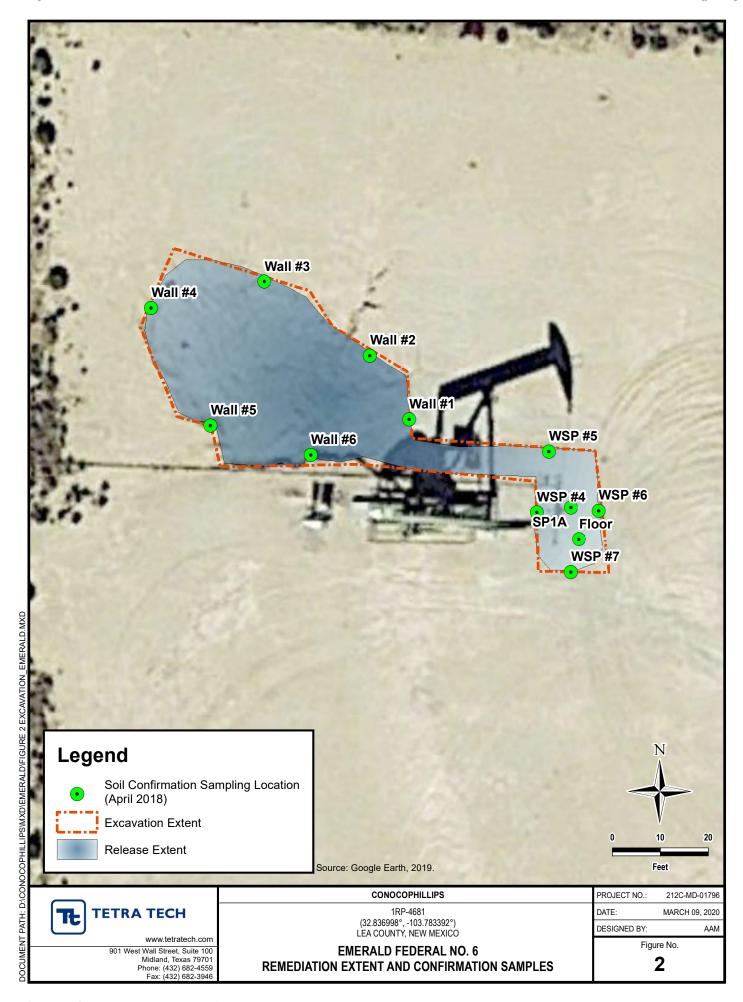
Sincerely,

Christian M. Llull Project Manager

Tetra Tech, Inc.

FIGURES





TABLES

TABLE 1 SUMMARY OF ANALYTICAL RESULTS SOIL ASSESSMENT - 1RP-4681 CONOCOPHILLIPS EMERALD FEDERAL No.6 LEA COUNTY, NEW MEXICO

									BTEX ²									TPI	1 ³		
Sample ID	Sample Date	Sample Depth	Chloride	1	Benzene		Toluene		Ethylbenze	na	Total Xylen	O.C	Total BTE	v	GRO		DRO		EXT DRO		TPH
					Delizene		Totale		Luiyibelize		Total Aylen	C3	TOTAL DIL	`	C ₆ - C ₁₀		>C ₁₀ - C ₂₈	3	>C ₂₈ - C ₃₆	5	C ₆ - C ₃₆
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
		1-2	208		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		3-4	1040		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		5-6	560		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
PT #1	02/13/18	7-8	480		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		11-12	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		13-14	736		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		1.2	16.0	1	< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		110.0		< 10.0		110.0	П	_
		1-2	16.0	1											< 10.0				< 10.0		-
		3-4	16.0	1	< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
DT #2	02/42/40	5-6	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
PT #2	02/13/18	7-8	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		11-12	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		13-14	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0	Ш	-
		1-2	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		3-4	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		5-6	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
PT #3	02/13/18	7-8	256		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		9-10	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		11-12	192		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
		13-14	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Fee

bgs Below ground surface mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline Range Organics
DRO Diesel Range Organics

Bold and italicized values indicate exceedance of proposed RRALs

- 1 Method SM4500Cl-B
- 2 Method 8021B
- 3 Method 8015M

TABLE 2 SUMMARY OF ANALYTICAL RESULTS SOIL CONFIRMATION - 1RP-4681 CONOCOPHILLIPS EMERALD FEDERAL No.6 LEA COUNTY, NEW MEXICO

									BTEX ²						TPH ³						
Sample ID	Sample Date	Sample Depth	Chloride ¹	ı	Benzene		Toluene		Ethylbenze	no	Total Xyler	205	Total BTE	,	GRO		DRO		EXT DRO)	TPH
					Delizerie		Toldene		Littyiberize		Total Aylei	163	Total Dit	`	C ₆ - C ₁₀		>C ₁₀ - C ₂	8	>C ₂₈ - C ₃	36	C ₆ - C ₃₆
		ft. bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
Wall #1	04/09/18	-	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		15.4		28.8		44.2
Wall #2	04/09/18	-	336		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		18.5		25.8		44.3
Wall #3	04/09/18	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Wall #4	04/09/18	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Wall #5	04/09/18	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Wall #6	04/09/18	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
Floor-3'	04/09/18	3	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
#1-13'	04/09/18	13	2120		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSP #4	04/17/18	-	352		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSP #5	04/17/18	-	368		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSP #6	04/17/18	-	368		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSP #7	04/17/18	-	432		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP1A-13'	04/17/18	13	288		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP1A-15'	04/17/18	15	288		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Feet

bgs Below ground surface mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline Range Organics

DRO Diesel Range Organics

${\it Bold\ and\ italicized\ values\ indicate\ exceedance\ of\ proposed\ RRALs.}$

- 1 Method SM4500Cl-B
- 2 Method 8021B
- 3 Method 8015M

ATTACHMENT A C-141 Forms

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

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Santa	Fe, NM 8/505	
Release Notification	on and Corrective Ac	ction
	OPERATOR	
Name of Company: ConocoPhillips	Contact: Cullen Rosine	
Address: 29 Vacuum Complex Lane	Telephone No. 575-391-313	3
Facility Name: Emerald Federal 6	Facility Type: Well Site	
	NY/A	ADINI 20 025 40002
Surface Owner: Federal Mineral Owne	r: N/A	API No.30-025-40892
	ON OF RELEASE	
Unit Letter Section Township Range Feet from the Nor H 17 17S 32E	th/South Line Feet from the	East/West Line County Lea
Latitude <u>32.8369255</u>	Longitude103.78332	52_
NATUR	E OF RELEASE	
Type of Release: Oil and Produced Water	Volume of Release: 2BO 4B	
Source of Release: Flow line	Date and Hour of Occurrence 4/17/2017 12:00 AM	Date and Hour of Discovery 5:30AM
Was Immediate Notice Given?	If YES, To Whom?	
Yes □ No □ Not Require	<u>-</u>	
By Whom? Cullen Rosine Was a Watercourse Reached?	Date and Hour: 4-17-2017 08 If YES, Volume Impacting the	
Yes No	ii 1 ES, volume impacting ti	e watercourse.
	DECENTER	
If a Watercourse was Impacted, Describe Fully.*	RECEIVED	
N/A	By Olivia Yu	at 1:24 pm, Apr 17, 2017
D. H. G. AD III AD HALL THE WITH A		
Describe Cause of Problem and Remedial Action Taken. While making of fluid heing released. No fluid was recovered. Spill will be rem		
of fluid being released. No fluid was recovered. Spill will be ren	nediated per BLM and NMOC	D guidennes.
Describe Area Affected and Cleanup Action Taken. *		
Area 1 – 126ft x 51ft x 1in		
I hereby certify that the information given above is true and complete to	o the best of my knowledge and ur	nderstand that pursuant to NMOCD rules and
regulations all operators are required to report and/or file certain release		
public health or the environment. The acceptance of a C-141 report by		
should their operations have failed to adequately investigate and remed		
or the environment. In addition, NMOCD acceptance of a C-141 repor	t does not relieve the operator of re	esponsibility for compliance with any other
federal, state, or local laws and/or regulations.	077 00370	
	OIL CONS	SERVATION DIVISION
Signature: Cullen Rosine		2 V)
	Approved by Environmental Sp	pecialist:
Printed Name: Cullen Rosine	TT	<u> </u>
Title: HSE Specialist	Approval Date: 4/17/2017	Expiration Date:
The state of the s	C I'' CA I	
E-mail Address: Cullen.J.Rosine@conocophillips.com	Conditions of Approval:	/
	see attached directiv	Attached

Date: 4-17-2017

1RP-4681

Phone:575-391-3133

nOY1710748487

pOY1710749103

^{*} Attach Additional Sheets If Necessary

Received by OCD: 2/16/2023 2:42:00 PM Form C-141 State of New Mexico Page 6 Oil Conservation Division

	Page 12 of 76
Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: Each of the following	items must be included in the closure report.
☐ A scaled site and sampling diagram as described in 19.15.29.	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	
and regulations all operators are required to report and/or file certar may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC including notifi	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Printed Name: Signature: Charles R Beauwais A	little:
Signature: Charles R Deauvaus NN	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.
Closure Approved by: Buttan Hall	Date: <u>2/20/2023</u>
Printed Name: Brittany Hall	Title: Environmental Specialist

ATTACHMENT B NMOSE Groundwater Data Karst Potential Map

(In feet)



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

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

		POD Sub-		0	Q	0						Donth	Donth	Water
POD Number	Code		County				Sec	Tws	Rng	х	Υ	_	-	Column
L 03980		L	LE	2	2	2	01	17S	32E	620466	3637594* 🎒	270	200	70
L 03980 S		L	LE	4	4	4	02	17S	32E	618870	3636170* 🌍	255	179	76
L 03980 S2		L	LE	3	2	3	01	17S	32E	619470	3636581* 🌑	225	175	50
L 04019		L	LE	4	3	4	02	17S	32E	618468	3636166* 🌕	182		
L 04020		L	LE	3	3	4	02	17S	32E	618268	3636166* 🌑	200		
L 04021	R	L	LE	3	4	4	02	17S	32E	618670	3636170* 🌑	190		
L 04021 POD3		L	LE		3	4	03	17S	32E	616761	3636252* 🌑	247		
L 04021 S		L	LE	2	4	4	03	17S	32E	617262	3636354* 🌑	260		
L 13047 POD1		L	LE				11	17S	32E	618187	3635254* 🌑	140		
L 13050 POD1		L	LE	2	2	1	10	17S	32E	616463	3635945* 🌑	156	132	24
RA 08855		RA	LE	4	1	1	10	17S	32E	616061	3635742* 🎒	158		
RA 09505		RA	LE	2	2	1	10	17S	32E	616462	3635944 🌑	147		
RA 09505 S		RA	LE	2	2	1	10	17S	32E	616463	3635945* 🎒	144		
RA 10175		RA	LE		2	1	28	17S	32E	614814	3631005* 🎒	158		
RA 11684 POD1		RA	LE	1	1	4	11	17S	32E	618216	3635124 🌑	275		
RA 11684 POD2		RA	LE	1	1	4	11	17S	32E	618313	3635248 🌑	275		
RA 11684 POD3		RA	LE	3	3	1	11	17S	32E	618262	3635371 🌑	275		
RA 11684 POD4		RA	LE	1	3	2	11	17S	32E	618334	3635521 🌍	275		
RA 11684 POD5		RA	LE	3	1	4	11	17S	32E	618353	3635047 🌑	275		
RA 11734 POD1		RA	LE	2	2	1	10	17S	32E	616556	3635929 🌑	165		
RA 11911 POD1		RA	LE	1	3	1	24	17S	32E	619192	3632296 🌑	35		
RA 12020 POD1		RA	LE	2	2	1	28	17S	32E	614828	3630954 🌑	120	81	39
RA 12020 POD3		RA	LE	2	1	2	28	17S	32E	615152	3631019 🌑	112	83	29
RA 12042 POD1		RA	LE	2	2	1	28	17S	32E	614891	3631181 🌍	400		
RA 12436 POD1		RA	LE	2	2	1	10	17S	32E	616556	3635929 🎒	160	125	35
RA 12521 POD1		RA	LE	3	3	4	21	17S	32E	615127	3631271 🌑	105	92	13

*UTM location was derived from PLSS - see Help

(In feet)

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a

(R=POD has been replaced, O=orphaned,

& no longer serves a water right file.)

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)

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

water right mory	olooca)	(-1				3,	(,		(
	POD Sub-		QQ	-					_	Depth	
POD Number	Code basin C	county	64 16	4 Sec	Tws	Rng	X	Y	Well	Water (Column
RA 12522 POD1	RA	LE	3 3	4 21	17S	32E	614941	3631122 🌍	100		
RA 12522 POD2	RA	LE	2 2	1 28	17S	32E	614949	3631098 🌍	100		
RA 12522 POD3	RA	LE	4 4	3 28	17S	32E	614980	3631093 🎒	100		
RA 12721 POD1	RA	LE	3 2	3 28	17S	32E	614645	3630141 🎒	125		
RA 12721 POD2	RA	LE	1 1	4 28	17S	32E	615055	3630407 🌍	124	75	49
RA 12721 POD3	RA	LE	2 3	4 28	17S	32E	615417	3629979 🎒	115		
RA 12721 POD4	RA	LE	1 1	2 33	17S	32E	615055	3629589 🌍	140		

Average Depth to Water: 126 feet

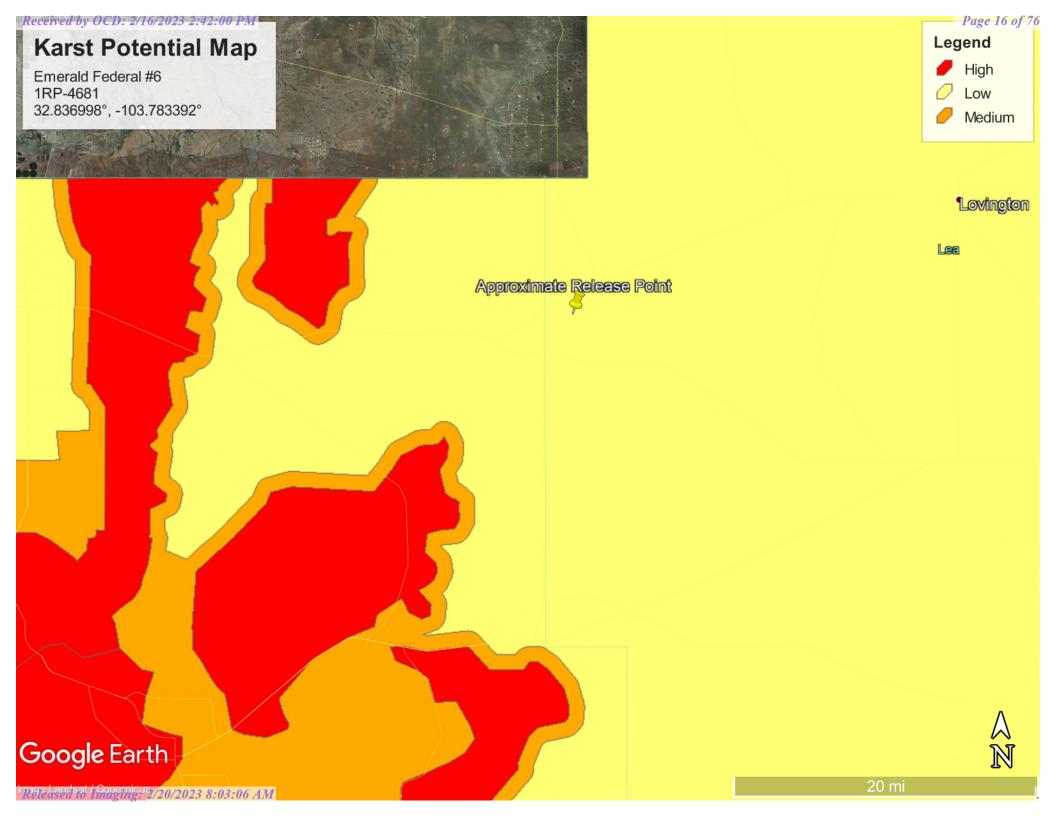
Minimum Depth: **75 feet**

Maximum Depth: 200 feet

Record Count: 33

PLSS Search:

Township: 17S Range: 32E



ATTACHMENT C Laboratory Analytical Data

April 16, 2018

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: EMERALD 006

Enclosed are the results of analyses for samples received by the laboratory on 04/09/18 14:13.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is 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. Keens

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

Released to Imaging: 2/20/2023 8:03:06 AM



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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Reported:

04/16/2018

Project Name: Project Number: EMERALD 006 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

amping Date.

Sampling Type: Soil

Sampling Condition: Sample Received By: Cool & Intact

04/09/2018

Tamara Oldaker

Sample ID: WALL #1 (H800968-01)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	95.1	% 72-148	}		-				<u> </u>
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	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	20 0	5.57	
DRO >C10-C28*	15.4	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	28.8	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	81.3 9	% 41-142							
Surrogate: 1-Chlorooctadecane	73.2 9	37.6-14	7						

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*=Accredited Analyte

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Sampling Date:

04/09/2018

Reported:

04/16/2018

Sampling Type:

Soil

Project Name:

EMERALD 006

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NONE GIVEN COPC - LEA CO NM Sample Received By:

Tamara Oldaker

Sample ID: WALL #2 (H800968-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifler
Benzene*	<0.050	0.050	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	94.9	% 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	336	16.0	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	18.5	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	25.8	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	83.4	% 41-142							
Surrogate: 1-Chlorooctadecane	76.0	% 37.6-14	7						

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Celeny D. France



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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported:

04/09/2018 04/16/2018

Project Name: Project Number: EMERALD 006 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

Sample Received By:

04/09/2018

Sampling Type:

Soil Sampling Condition:

Cool & Intact

Tamara Oldaker

Sample ID: WALL #3 (H800968-03)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2,00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	96.7	% 72-148							
Chloride, SM4500CI-B	de, 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	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	79.7 %	6 41-142							
Surrogate: 1-Chlorooctadecane	71.6%	6 37.6-147	,						

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ng, 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 whatsoever 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 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 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 be deemed waived unless made in writing and received by Cardinal, regardless of whether such





Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477

Received:

04/09/2018

Sampling Date:

04/09/2018

Reported:

04/16/2018

Sampling Type:

Soil

Project Name:

EMERALD 006

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NONE GIVEN COPC - LEA CO NM Sample Received By:

Tamara Oldaker

Sample ID: WALL #4 (H800968-04)

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	04/11/2018	ND	2.18	109	2.00	0.00399	
Toluene*	<0.050	0.050	04/11/2018	ND	2.19	109	2.00	1.43	
Ethylbenzene*	<0.050	0.050	04/11/2018	ND	2.16	108	2.00	1.20	
Total Xylenes*	<0.150	0.150	04/11/2018	ND	6.64	111	6.00	1.36	
Total BTEX	<0.300	0.300	04/11/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	95.7	% 72-148							
Chloride, SM4500Cl-B			Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	80.1 9	% 41-142							
Surrogate: 1-Chlorooctadecane	72.3 9	% 37.6-14	7						

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Released to Imaging: 2/20/2023 8:03:06 AM



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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Reported:

04/16/2018

Project Name: Project Number: EMERALD 006 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

Sampling Type:

04/09/2018 Soil

Sampling Condition:

Sample Received By:

Cool & Intact Tamara Oldaker

Sample ID: WALL #5 (H800968-05)

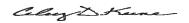
BTEX 8021B	mg	'kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.0860	
Toluene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.108	
Ethylbenzene*	<0.050	0.050	04/12/2018	ND	2.08	104	2.00	1.26	
Total Xylenes*	<0.150	0.150	04/12/2018	ND	6.44	107	6.00	1.37	
Total BTEX	<0.300	0.300	04/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	96.4	% 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	16.0	16.0	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	85.7 9	6 41-142							
Surrogate: 1-Chlorooctadecane	76.8 9	6 37.6-147	,						

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Sampling Date:

04/09/2018

Reported:

04/16/2018

Sampling Type:

Soil

Project Name:

EMERALD 006 NONE GIVEN Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Project Number: Project Location:

COPC - LEA CO NM

Sample ID: WALL #6 (H800968-06)

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	04/12/2018	ND	2.07	104	2.00	0.0860	
Toluene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.108	
Ethylbenzene*	<0.050	0.050	04/12/2018	ND	2.08	104	2.00	1.26	
Total Xylenes*	<0.150	0.150	04/12/2018	ND	6.44	107	6.00	1.37	
Total BTEX	<0.300	0.300	04/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	95.9 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	32.0	16.0	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	81.9 9	6 41-142							
Surrogate: 1-Chlorooctadecane	72.2 9	6 37.6-147	,						

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Celeg & Keena

Celey D. Keene, Lab Director/Quality Manager

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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Reported:

04/16/2018 **EMERALD 006**

Project Name: Project Number:

NONE GIVEN COPC - LEA CO NM

Project Location:

Sampling Date:

Sampling Type:

Sampling Condition:

04/09/2018

Soil

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: FLOOR 3' (H800968-07)

BTEX 8021B	mg	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.0860	
Toluene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.108	
Ethylbenzene*	<0.050	0.050	04/12/2018	ND	2.08	104	2.00	1.26	
Total Xylenes*	<0.150	0.150	04/12/2018	ND	6.44	107	6.00	1.37	
Total BTEX	<0.300	0.300	04/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	96.0	% 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	16.0	16.0	04/12/2018	ND	416	104	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	04/14/2018	ND	229	114	200	5,57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	81.3 9	% 41-142							
Surrogate: 1-Chlorooctadecane	72.7 9	% 37.6-147	,						

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/09/2018

Sampling Date:

04/09/2018

Reported:

04/16/2018

Sampling Type:

Soil

Project Name:

EMERALD 006 NONE GIVEN

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

Project Number: Project Location:

COPC - LEA CO NM

Sample ID: #1 - 13' (H800968-08)

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	04/12/2018	ND	2,07	104	2.00	0.0860	
Toluene*	<0.050	0.050	04/12/2018	ND	2.07	104	2.00	0.108	
Ethylbenzene*	<0.050	0.050	04/12/2018	ND	2.08	104	2.00	1.26	
Total Xylenes*	<0.150	0.150	04/12/2018	ND	6.44	107	6.00	1.37	
Total BTEX	<0.300	0.300	04/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	93.9	% 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	2120	16.0	04/12/2018	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2018	ND	229	114	200	5.57	
DRO >C10-C28*	<10.0	10.0	04/14/2018	ND	227	113	200	9.74	
EXT DRO >C28-C36	<10.0	10.0	04/14/2018	ND					
Surrogate: 1-Chlorooctane	78.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	70.6	% 37.6-14	7						

Cardinal Laboratories

Received by OCD: 2/16/2023 2:42:00 PM

*=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 PLENCE COURSE SHOWER SHOW DEPTHDENCE TO THE DEPTHDENCE OF THE SHOWER SHO

Celey D. Keene, Lab Director/Quality Manager

QM-07

Notes and Definitions

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

Cardinal Laboratories

2:42:00 PM

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Comeo Philips			in the desire of the contract	ANALYSIS REQUEST
Project Manager: Justin Wright		P.O. #:		
Address:		Company: Comes Phillips	ا کو:((را	
City: Holds State: Win Zip: 88240	Zip: 883410	Attn:		
75-631-9092 F		Address:		
Project #: Project Owner:		City:		
Project Name: Facrald ool		State: Zip:		
Project Location: Leg County, LM		*		
Sampler Name: Justin Wijoht		Fax #:		
	MATRIX	PRESERV. SAMPLING	Sol	
	ERS ATER TER			
H80908	(G)RAB OR # CONTAIN GROUNDW WASTEWA SOIL OIL SLUDGE	OTHER: ACID/BASE ICE / COOL OTHER:	Chlori BIEX TOH	
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7 Floor 3'		1 4.9	٠ ٧ ٧	
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PLEASE NOTE: Lability and Damages. Cardinal's lability and clear's exclusive remedy for any clean entang whether based in contract or tort, shall be finited to the amount paid by the client for the	y claim arking whether based in contra	ct or tort, shall be limited to the amount paid	by the client for the	

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Date: Date:

CHECKED BY:
(Initials)

Reli#quished

Received By

Received by OCD: 2/16/2023 2:42:00 PM

April 23, 2018

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: EMERALD #6

Enclosed are the results of analyses for samples received by the laboratory on 04/18/18 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab-accred-certif.html.

Cardinal Laboratories is 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

Received by OCD: 2/16/2023 2:42:00 PM

Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/18/2018

Reported:

04/23/2018 EMERALD #6

Project Name: Project Number:

NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

Sampling Type:

04/17/2018 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: WSP #4 (H801057-01)

BTEX 8021B	mg/	kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	04/20/2018	ND	2.04	102	2.00	6.31	
Toluene*	<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
Ethylbenzene*	<0.050	0.050	04/20/2018	ND	1.94	96.9	2.00	6.54	
Total Xylenes*	<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
Total BTEX	<0.300	0.300	04/20/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	94.7 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	352	16.0	04/23/2018	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	04/21/2018	ND	197	98.6	200	2.26	
DRO >C10-C28*	<10.0	10.0	04/21/2018	ND	207	103	200	3.38	
EXT DRO >C28-C36	<10.0	10.0	04/21/2018	ND					
Surrogate: 1-Chlorooctane	87.3 %	6 41-142							
Surrogate: 1-Chlorooctadecane	71.0 %	6 37.6-147							
-									

Cardinal Laboratories

Received by OCD: 2/16/2023 2:42:00 PM

*=Accredited Analyte

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported: 04/18/2018

04/23/2018

EMERALD #6

Project Name: Project Number: Project Location:

NONE GIVEN COPC - LEA CO NM Sampling Date:

04/17/2018

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Sample ID: WSP #5 (H801057-02)

mg/	'kg	Analyze	d By: MS				·····	
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	04/20/2018	ND	2.04	102	2,00	6.31	
<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
<0.050	0.050	04/20/2018	ND	1.94	96.9	2.00	6.54	
<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
<0.300	0.300	04/20/2018	ND					
	Result <0.050 <0.050 <0.050 <0.150	<0.050 0.050 <0.050 0.050 <0.050 0.050 <0.150 0.150	Result Reporting Limit Analyzed <0.050 0.050 04/20/2018 <0.050 0.050 04/20/2018 <0.050 0.050 04/20/2018 <0.050 0.150 04/20/2018	Result Reporting Limit Analyzed Method Blank <0.050	Result Reporting Limit Analyzed Method Blank BS <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <0.050

Surrogate: 4-Bromofluorobenzene (PIL	93.8	% 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	368	16.0	04/23/2018	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	04/21/2018	ND	197	98.6	200	2.26	
DRO >C10-C28*	<10.0	10.0	04/21/2018	ND	207	103	200	3.38	
EXT DRO >C28-C36	<10.0	10.0	04/21/2018	ND					

Surrogate: 1-Chlorooctane Surrogate: 1-Chlorooctadecane

90.1%

41-142

71.0 %

37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/18/2018

Reported:

04/23/2018 EMERALD #6

Project Name: Project Number:

NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

04/17/2018 Soil

Sampling Type:

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: WSP #6 (H801057-03)

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	04/20/2018	ND	2.04	102	2.00	6.31	
Toluene*	<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
Ethylbenzene*	<0.050	0.050	04/20/2018	ND	1.94	96.9	2.00	6.54	
Total Xylenes*	<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
Total BTEX	<0.300	0.300	04/20/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	92.9 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	368	16.0	04/23/2018	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	04/21/2018	ND	197	98.6	200	2.26	
DRO >C10-C28*	<10.0	10.0	04/21/2018	ND	207	103	200	3.38	
EXT DRO >C28-C36	<10.0	10.0	04/21/2018	ND					
Surrogate: 1-Chlorooctane	88.5 %	6 41-142							
Surrogate: 1-Chlorooctadecane	69.5 %	6 37.6-147							

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*=Accredited Analyte

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 whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service.





Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477

Received:

04/18/2018

Reported: Project Name: 04/23/2018 **EMERALD #6** NONE GIVEN

Project Number: Project Location:

BTEX 8021B

COPC - LEA CO NM

mg/kg

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

04/17/2018

Soil

Cool & Intact Jodi Henson

Sample ID: WSP #7 (H801057-04)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/20/2018	ND	2.04	102	2.00	6.31	
Toluene*	<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
Ethylbenzene*	<0.050	0.050	04/20/2018	ND	1.94	96.9	2,00	6.54	
Total Xylenes*	<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
Total BTEX	<0.300	0.300	04/20/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	96.2	% 72-148	3						-
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC			·····		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	04/23/2018	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	04/21/2018	ND	197	98.6	200	2.26	

ND

ND

207

103

200

3.38

04/21/2018

04/21/2018

Analyzed By: MS

41-142 85.2 % Surrogate: 1-Chlorooctane 66.9 % 37.6-147 Surrogate: 1-Chlorooctadecane

<10.0

<10.0

10.0

10.0

Cardinal Laboratories

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DRO >C10-C28*

EXT DRO >C28-C36

*=Accredited Analyte

any other cause whatsoever shall be deemed welved unless made in writing and received by Clarifinal within 1810 days after completion of the applicable service. In no event shall Cardinal be flable for incidental or consequential damages, including, without limitation, business interruptions, loss or loss, or loss of profits incidental or consequential damages, including, without limitation, business interruptions, loss or loss, or loss of profits incidental or consequential damages, including, without limitation, business interruptions, loss or loss, or loss of profits incidental or consequential damages, including without limitation, business interruptions, loss or loss, or loss of profits incidental or consequential damages, including without limitation, business interruptions, loss or loss, or loss of profits incidental or consequential damages, including after a many limitation of the services incidental or consequential damages, including after a many limitation of the services incidental cardinal based in writing and received by Cardinal, regardless of whether such claims to 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. PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, w

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CARDINAL

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 SM4500CI-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Kuna

Released to Imaging: 2/20/2023 8:03:06 AM



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

L	Conoco Phillips			111		BILLTO			8	S 0.5% 18		5					
Project Manager:	Justin Wright			P.O. #	- 1					4	1	AINAL IOIO		VEROES!]	1	
ess:				Com	oany:	Company: Conco Phillips	P.//2									-	
City: Hobbs	State: NM	Zip:	Zip: 88340	Attn:			7				-						
Phone #: 575	575-631-9092 Fax#:			Address:	ess:							-					
Project #:	Project Owner:	380	7	City:												-	
Project Name: E	Emerald 6			State:		Zip:											
Project Location:	lea County Nom			Phone #:	#	1											
Sampler Name:	Tustin Whicht			# XE													
FOR LAB USE ONLY		\dashv	MATRIX	2	PRESERV	SAMPLING	S S										
			R							5							
Lab I.D.	Sample I.D.	RAB OR (DGE	ER : D/BASE:	COOL ER:			TEX	PH_	bride	-						
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Relinquished By:	// Paris / Rege	Regelv	Regelved By: Phone Resi	DESCRIPTION OF THE PROPERTY OF	n any of th	e above stated rec	Phone Result:	iii D	Yes		Add	Phone #		l			
Journal J.	Tongar 1000	à	A JA	2	8	7	Fax Result: REMARKS:			8	Add'i	Add'l Fax #:					
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Delivered By: (Circle One)																	_
Sampler - UPS - Bus - Other:	s - Other: 4/5	E	Cool Inter		S CHILD												
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Page 7 of 7

Received by OCD: 2/16/2023 2:42:00 PM

April 24, 2018

JUSTIN WRIGHT

Conoco Phillips - Hobbs

P. O. BOX 325

Hobbs, NM 88240

RE: EMERALD #6

Enclosed are the results of analyses for samples received by the laboratory on 04/18/18 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited 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.

Celeg D. Keens

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

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Lab Director/Quality Manager



Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

04/18/2018

Reported:

04/24/2018

Project Name: Project Number: EMERALD #6

NONE GIVEN

Sampling Date:

04/17/2018

Sampling Type:

Sampling Condition: Sample Received By: Soil

Cool & Intact Jodi Henson

Project Location:

COPC - LEA CO NM

Sample ID: SP 1A - 13' (H801059-01)

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	04/20/2018	ND	2.04	102	2.00	6.31	
Toluene*	<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
Ethylbenzene*	<0.050	0.050	04/20/2018	ND	1.94	96.9	2.00	6.54	
Total Xylenes*	<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
Total BTEX	<0.300	0.300	04/20/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	93.3 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	288	16.0	04/24/2018	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	04/21/2018	ND	197	98.6	200	2.26	
DRO >C10-C28*	<10.0	10.0	04/21/2018	ND	207	103	200	3.38	
EXT DRO >C28-C36	<10.0	10.0	04/21/2018	ND					
Surrogate: 1-Chlorooctane	88.4 %	6 41-142							
Surrogate: 1-Chlorooctadecane	68.5 %	6 37.6-147	7						

Cardinal Laboratories

2:42:00 PM

Received by OCD: 2/16/2023.

*=Accredited Analyte

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Celey D.Ke



Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported: 04/18/2018

04/24/2018

04/24/2018 EMERALD #6

Project Name: Project Number:

NONE GIVEN

Project Location: COPC - LEA CO NM

Sampling Date:

04/17/2018

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: SP 1A - 15' (H801059-02)

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	04/20/2018	ND	2.04	102	2.00	6.31	
Toluene*	<0.050	0.050	04/20/2018	ND	2.01	100	2.00	6.39	
Ethylbenzene*	<0.050	0.050	04/20/2018	ND	1.94	96.9	2.00	6.54	
Total Xylenes*	<0.150	0.150	04/20/2018	ND	5.91	98.5	6.00	5.97	
Total BTEX	<0.300	0.300	04/20/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	96.3	% 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	272	16.0	04/24/2018	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	04/21/2018	ND	197	98.6	200	2.26	
DRO >C10-C28*	<10.0	10.0	04/21/2018	ND	207	103	200	3.38	
EXT DRO >C28-C36	<10.0	10.0	04/21/2018	ND					
Surrogate: 1-Chlorooctane	88.4	% 41-142							
Surrogate: 1-Chlorooctadecane	67.7	% 37.6-147	7						

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*=Accredited Analyte

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Celey & Kune

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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2:42:00 PM

Received by OCD: 2/16/2023

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Celey D. Kuna

Sampler - UPS - Bus - Other: 75.5°

-3.550 Fres Fres

ithen channas touts The nellowill

1 200

Relinquished By

Time:

Received By:

Phone Result: Fax Result: REMARKS:

> 2 8 8

Add'I Fax #:

Released to Imaging: 2/20/2023 8:03:06 AM



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

(5/5) 393-2320 FAA (3/3) 303-27-0			ANIAI VOIO DECLIECT
Company Name: Company Phillips	es:	BILLTO	ANALIGIO REGOLO:
	70	P.O. #	
Address:	C	Company: Conoco Phull 1921	
City: 140,663 State: 1997 Zip: 88,3410		Attn:	
Phone #: 575-631-9092 Fax #:	>	Address:	
Project #: Project Owner:	0	City:	
mar Emovald to	S	State: Zip:	
Floren Manie: 2 Margin &	70	Phone #:	
Project Location: Leg Colony 1887	7	Tax #:	
Sampler Name: ///Sr/n /4//194/	MATRIX	PRESERV! SAMPLING	
FOR LAB USE ONLY			3
Lab I.D. Sample I.D.	G)RAB OR (C)C CONTAINERS GROUNDWATE WASTEWATER GOIL DIL GRUUDGE	OTHER: ACID/BASE: CE / COOL OTHER: DATE	BTEX TPH Chloride
50 ID - 12/	<		< 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
7 - 40 /A - 15'	S (7 9 9
PLEASE NOTE: Liability and Demagns. Cardinal's labelity and clear's succession remach for any claim satisfing whether bessed in contract or tox, shall be furnad to the amount paid by the clearl for the PLEASE NOTE: Liability and Charges after completion of the applicable analyses. All claims including those for negligence and any other cause whetherese shall be deemed without whites made in writing and necession for the claims for the claim of the claims.	y claim eiteing whether based in contract o eemad walvod unless made in writing and	or fort, shall be limited to the emount paid by the client to received by Cardinal within 30 days after completion of I	of the conficable

Received by OCD: 2/16/2023 2:42:00 PM

Received by OCD: 2/16/2023 2:42:00 PM





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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								W	ater
POD Number	C	ode basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDe	pthWellDep	thWater Co	lumn
RA 12042 POD1		RA	LE	2	2	1	28	17S	32E	614891	3631181	2878	400		
RA 08855		RA	LE	4	1	1	10	17S	32E	616061	3635742*	2884	158		
RA 10175		RA	LE		2	1	28	175	32E	614814	3631005*	3019	158		
RA 12020 POD1		RA	LE	2	2	1	28	17S	32E	614828	3630954	3071	120	81	39
RA 09505		RA	LE	2	2	1	10	178	32E	616462	3635944	3322	147		
L 13050 POD1	27	L	LE	2	2	1	10	17S	32E	616463	3635945* 🦦	3323	156	132	24
RA 09505 S		RA	LE	2	2	1	10	1 7 S	32E	616463	3635945*	3323	144		
RA 11734 POD1		RA	LE	2	2	1	10	17S	32E	616556	3635929 💨	3387	165		

Average Depth to Water:

106 feet

Minimum Depth: Maximum Depth:

81 feet 132 feet

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 613865.82

Northing (Y): 3633871.35

Radius: 3700

*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.

1/22/19 12:46 PM

WATER COLUMN/ AVERAGE DEPTH TO

Received by OCD: 2/16/2023 2:42:00 PM



February 19, 2018

JUSTIN WRIGHT Conoco Phillips - Hobbs P. O, BOX 325 Hobbs, NM 88240

RE: EMERALD #6

Enclosed are the results of analyses for samples received by the laboratory on 02/13/18 16:40.

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)

Celey D. Keens

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

Received by OCD: 2/16/2023 2:42:00 PM

Lab Director/Quality Manager

Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

02/13/2018

Reported:

02/19/2018 EMERALD #6

Project Name: Project Number:

NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #1 - 1' (H800456-01)

Analyte									
	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 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	208	16.0	02/15/2018	ND	432	108	400	3.64	
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	198	98.8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	90.2 9	% 41-142							
Surrogate: 1-Chlorooctadecane	83.5 9	% 37.6-147	,						

Cardinal Laboratories

Received by OCD: 2/16/2023 2:42:00 PM

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Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477

Received:

BTEX 8021B

02/13/2018

Sampling Date: Sampling Type: 02/13/2018

Reported:

02/19/2018

Soil

Project Name:

EMERALD #6 NONE GIVEN Sampling Condition: Sample Received By: Cool & Intact Tamara Oldaker

Project Number: Project Location:

COPC - LEA CO NM

mg/kg

Sample ID: PT #1 - 3' (H800456-02)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 9	6 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	1040	16.0	02/15/2018	ND	432	108	400	3.64	
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	198	98.8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					

Analyzed By: MS

Surrogate: 1-Chlorooctane

86.8 %

41-142

Surrogate: 1-Chlorooctadecane

79.3 %

37.6-147

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported: 02/13/2018

02/19/2018

Project Name: Project Number:

EMERALD #6 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

02/13/2018 Soil

Sampling Type:

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #1 - 5' (H800456-03)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	100 %	6 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	560	16.0	02/15/2018	ND	432	108	400	3.64	
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	198	98.8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	84.6%	6 41-142							
Surrogate: 1-Chlorooctadecane	76.1 %	6 37.6-147							

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Celeg D. Keen



Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477

Received:

02/13/2018

Sampling Date:

02/13/2018

Reported:

02/19/2018

Sampling Type:

Soil

Project Name:

EMERALD #6

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

Project Number: Project Location: NONE GIVEN COPC - LEA CO NM

Sample ID: PT #1 - 7' (H800456-04)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 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	480	16.0	02/15/2018	ND	432	108	400	3.64	
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	198	98,8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	86.4	% 41-142							
Surrogate: 1-Chlorooctadecane	79.65	% 37.6-14	7						

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported: 02/13/2018

02/19/2018

Project Name: Project Number: EMERALD #6 NONE GIVEN

Project Location:

NONE GIVEN
COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: PT #1 - 9' (H800456-05)

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 %	6 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	240	16.0	02/15/2018	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS	<u></u>				
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	198	98.8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	83.1 %	6 41-142				 			
Surrogate: 1-Chlorooctadecane	75.7 %	37.6-147	,						

Cardinal Laboratories

Received by OCD: 2/16/2023 2:42:00 PM

*=Accredited Analyte

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Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported:

02/13/2018

02/19/2018

Project Name: Project Number: EMERALD #6

Project Location:

NONE GIVEN
COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #1 - 11' (H800456-06)

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	02/15/2018	ND	2.21	110	2,00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101	% 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	240	16.0	02/15/2018	ND	432	108	400	3.64	
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	198	98.8	200	6.18	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	92.3	% 41-142	-						
Surrogate: 1-Chlorooctadecane	85.1	% 37.6-147	7						

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

02/13/2018

Reported: Project Name: 02/19/2018 EMERALD #6

Project Number: Project Location: NONE GIVEN COPC - LEA CO NM Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: PT #1 - 13' (H800456-07)

Result	Reporting Limit	Analyzed						
<0.050		raidiyadd	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
-0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14,2	
<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
<0.300	0.300	02/15/2018	ND					
100 9	6 72-148							
mg/	kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
736	16.0	02/15/2018	ND	432	108	400	3.64	
mg/	кg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10,0	02/15/2018	ND	198	98.8	200	6.18	
<10.0	10.0	02/15/2018	ND	213	106	200	7.09	
<10.0	10.0	02/15/2018	ND					
93.0 %	41-142							
92.2 %	37.6-147							
	<0.050 <0.050 <0.150 <0.300 100 % mg/l Result 736 mg/l Result <10.0 <10.0 <10.0	<0.050 0.050 <0.050 0.050 <0.150 0.150 <0.300 0.300 100 % 72-148 mg/kg Result Reporting Limit 736 16.0 mg/kg Result Reporting Limit <10.0 10.0 <10.0 10.0 <10.0 10.0	<0.050	<0.050	<0.050	 <0.050	 <0.050	 Column

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Received:

02/13/2018

Sampling Date: Sampling Type: 02/13/2018

Reported:

02/19/2018

Soil

Project Name:

EMERALD #6

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Tamara Oldaker

Project Location:

COPC - LEA CO NM

Sample ID: PT #2 - 1' (H800456-08)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 9	6 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	16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	34
EXT DRO >C28-C36	<10.0	10,0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	93.7	% 41-142							
Surrogate: 1-Chlorooctadecane	97.9	% 37.6-14	7						

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Fax To:

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Received:

02/13/2018

Reported: Project Name:

02/19/2018 EMERALD #6

Project Number:

NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #2 - 3' (H800456-09)

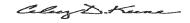
BTEX 8021B	mg,	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 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	16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	101 %	6 41-142							
Surrogate: 1-Chlorooctadecane	99.3 %	6 37.6-147							

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Received: Reported: 02/13/2018

02/19/2018

Project Name:

EMERALD #6

Project Number: Project Location: NONE GIVEN COPC - LEA CO NM Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #2 - 5' (H800456-10)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	102 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	<16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10,0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	86.5	% 41-142							
Surrogate: 1-Chlorooctadecane	84.8	% 37.6-147	7						

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Analytical Results For:

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Received:

02/13/2018

Reported: Project Name: 02/19/2018 EMERALD #6

Project Number: Project Location: NONE GIVEN

COPC - LEA CO NM

Sampling Date:

Sampling Type: Soil

Sampling Condition:

Sample Received By:

02/13/2018

Cool & Intact

Tamara Oldaker

Sample ID: PT #2 - 7' (H800456-11)

BTEX 8021B	mg/	kg	Analyzo	ed By: MS	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	102 %	6 72-148							
Chloride, SM4500Cl-B	mg/l	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/15/2018	ND	432	108	400	3.64	
TPH 8015M	mg/l	(g	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	89.3 %	5 41-142							
Surrogate: 1-Chlorooctadecane	83.9 %	37.6-147							

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Received:

02/13/2018

Sampling Date:

02/13/2018

Reported:

02/19/2018

Sampling Type:

Soil

Project Name:

EMERALD #6

81.7%

37.6-147

Sampling Condition:

Cool & Intact

Project Number: Project Location: NONE GIVEN COPC - LEA CO NM

Sample Received By:

Tamara Oldaker

Sample ID: PT #2 - 9' (H800456-12)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 %	6 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	<16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	88.1 9	% 41-142							

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Surrogate: 1-Chlorooctadecane

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

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Received:

02/13/2018

Reported:

02/19/2018

Project Name: Project Number:

EMERALD #6 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition: Sample Received By:

Cool & Intact

Tamara Oldaker

Sample ID: PT #2 - 11' (H800456-13)

BTEX 8021B	mg/	kg	Analyzo	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 %	6 72-148							
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/15/2018	ND	432	108	400	3.64	
TPH 8015M	mg/l	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24,8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	83.0 %	6 41-142			<u>.</u>				
Surrogate: 1-Chlorooctadecane	76.9 %	37.6-147							

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Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

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Received:

02/13/2018

Sampling Date: Sampling Type: 02/13/2018

Reported:

02/19/2018

Soil

Project Name:

EMERALD #6

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Tamara Oldaker

Project Location:

COPC - LEA CO NM

Sample ID: PT #2 - 13' (H800456-14)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 %	% 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	<16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	97.8 9	% 41-142							
Surrogate: 1-Chlorooctadecane	94.69	% 37.6-147	,						

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Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported:

02/13/2018

02/19/2018

Project Name:

EMERALD #6

Project Number: Project Location:

NONE GIVEN COPC - LEA CO NM Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: PT #3 - 1' (H800456-15)

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	102 %	6 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	16.0	16.0	02/15/2018	ND	432	108	400	3.64	
TPH 8015M	mg/l	кg	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	90.2 %	3 41-142				-			
Surrogate: 1-Chlorooctadecane	84.6%	37.6-147							

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Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240 Fax To: (575) 297-1477

Received:

02/13/2018

CARDINAL Laboratories

02/19/2018

Reported: Project Name: Project Number:

EMERALD #6 NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

Sampling Type:

Sample Received By:

02/13/2018 Soil

Sampling Condition:

Cool & Intact

Tamara Oldaker

Sample ID: PT #3 - 3' (H800456-16)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	::
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 9	6 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	<16.0	16.0	02/15/2018	ND	432	108	400	3.64	
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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO > C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	98.2 9	6 41-142							
Surrogate: 1-Chlorooctadecane	93.89	6 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received: Reported:

02/13/2018

02/19/2018

Project Name: Project Number: EMERALD #6
NONE GIVEN

Project Location:

NONE GIVEN COPC - LEA CO NM Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #3 - 5' (H800456-17)

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	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 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	<16.0	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	91.9 9	6 41-142							
Surrogate: 1-Chlorooctadecane	87.1 9	6 37.6-147	7						

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Received:

02/13/2018

02/19/2018

Reported: Project Name:

EMERALD #6 NONE GIVEN

Project Number: Project Location:

COPC - LEA CO NM

Sampling Date: Sampling Type:

02/13/2018

Cool & Intact

Soil

Sampling Condition: Sample Received By:

Tamara Oldaker

Sample ID: PT #3 - 7' (H800456-18)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	101 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	Qualifie
Chloride	256	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	Qualifie
GRO C6-C10*	<10.0	10.0	02/15/2018	ND	197	98.6	200	5.05	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					

Surrogate: 1-Chlorooctadecane

Surrogate: 1-Chlorooctane

90.3 %

85.9 %

41-142 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Conoco Phillips - Hobbs JUSTIN WRIGHT P. O. BOX 325 Hobbs NM, 88240

Fax To:

(575) 297-1477

Received:

02/13/2018

Sampling Date:

02/13/2018

Reported:

02/19/2018 EMERALD #6 Sampling Type:

Soil

Project Name:

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NONE GIVEN COPC - LEA CO NM Sample Received By:

Tamara Oldaker

Sample ID: PT #3 - 9' (H800456-19)

BTEX 8021B	mg/	kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/15/2018	ND	2.21	110	2.00	12.2	
Toluene*	<0.050	0.050	02/15/2018	ND	2.18	109	2.00	14.2	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	2.16	108	2.00	13.5	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	6.29	105	6.00	12.7	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 72-148							· · ·
Chloride, SM4500Cl-B	mg/	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/15/2018	ND	432	108	400	3.77	
TPH 8015M	mg/l	kg	Analyze	d By: MS				14	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2018	ND	197	98.6	200	5.05	
DRO >C10-C28*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10,0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	89.6 %	6 41-142							
Surrogate: 1-Chlorooctadecane	85.6 %	6 37.6-147	,						

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Fax To:

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Received: Reported:

02/13/2018

02/19/2018

Project Name: Project Number: EMERALD #6
NONE GIVEN

Project Location:

COPC - LEA CO NM

Sampling Date:

02/13/2018

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: PT #3 - 11' (H800456-20)

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	02/15/2018	ND	2.00	100	2.00	0.112	
Toluene*	<0.050	0.050	02/15/2018	ND	1.99	99.3	2.00	0.452	
Ethylbenzene*	<0.050	0.050	02/15/2018	ND	1.99	99.3	2.00	0.916	
Total Xylenes*	<0.150	0.150	02/15/2018	ND	5.77	96.1	6.00	1.08	
Total BTEX	<0.300	0.300	02/15/2018	ND					
Surrogate: 4-Bromofluorobenzene (PIL	113	% 72-148							
Chloride, SM4500Cl-B	mg,	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	87.8	% 41-142							
Surrogate: 1-Chlorooctadecane	82.4	% 37.6-14	7						

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Fax To:

Received:

02/13/2018

Reported: Project Name:

02/19/2018 EMERALD #6

Project Number:

NONE GIVEN COPC - LEA CO NM

Project Location:

Sampling Date:

Sampling Type: Sampling Condition:

Sample Received By:

02/13/2018

Soil

Cool & Intact

Tamara Oldaker

Sample ID: PT #3 - 13' (H800456-21)

BTEX 8021B	mg	/kg	Analyzo	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 (PIL	99.65	% 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	224	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*	<10.0	10.0	02/15/2018	ND	216	108	200	24.8	
EXT DRO >C28-C36	<10.0	10.0	02/15/2018	ND					
Surrogate: 1-Chlorooctane	93.6%	6 41-142							
Surrogate: 1-Chlorooctadecane	89.1%	6 37.6-147							

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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

ecovery.

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 SM4500CI-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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(575) 393-2326 Fax (575) 393-	101 East Marland, Hobbs, NM 882	ARDINAL LABORATORIE		•
ax (575) 393-	tobbs, NM 882	RATORIE		

≣S 3240 -2476

(575) 393-2326 Fax (575) 393-2476	76				Page of 33
Company Name: Course Phillips		BILL TO		ANAI	ANALYSIS REQUEST
Project Manager: Tuth Whight		P.O. #:			
-		Company: CORC			
City: Holk State: MM	Zip: 8847	Attn:	,		
Phone #: 575-631-4993 Fax #:		Address:			
Project #: Project Owner: COX		City:			
Project Name: Engald #6		State: Zip:			
Project Location: Lea County, MM		Phone #:			
Sampler Name: Justin Whicht		Fax#:			
	MATRIX	PRESERV. SAMPLING			
Lab I.D. Sample I.D.	AB OR (C)OMI INTAINERS UNDWATER ITEWATER	ER: D/BASE COOL ER	PH	TEX placides	
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11-141-07	6	V 2-13-18	1/1/	√ :	
C DT # 2 - ()	\$ V	8-11-6	. <		
9 77 12-31		1 2-13-18	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	G /	1 2139	٧ ٧		
c. Leasey and Learnages, Cardman's leability and client's en leases including those for negligence and any other cause event shall Cardmai be leable for incidental or consequents	any claim actsing whether based in contract o • deemed waived unless made in writing and : • g without ismitation, business interruptions, fo	is excitans element for any claim artisig sheather based in contract or top, shall be arrived pied by the claent for the see whetsoever shall be deemed wishout unless made in writing and recorded Dr. Cardinal within 30 days after completion of the applicable entail demanges, including without institution, business hierinuptors, loss of use, or loss of profils injuringly of claims is subsistents.	the re applicable res.	Terms and Condition 30 days past due at the and all costs of coded	Terms and Conditions: tobases will be changed on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections includes absorber's fees.
Sampler Relinguished: Date:	Received By:	of services hereunder by Cardmal regardless of whether such claim is based upon any of the above stated reasons or otherwise. Dayle: Received By: Phone Resul	# 		Add'l Phone #:
	lamara	Fax Result: REMARKS:			BX 井:
V	repeated by.				
•	Temp. Sample Condition Cool intact	on CHECKED BY:			
Sampler - UPS - Bus - Other: 18 Martin 3.55 c	SC Dies Lives	10,			*****
† Cardinal cannot accent workal changes Blosso					

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

Page 24 of 26

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**	-	ARD		,
(575)	101 East Marland, Hobbs, NM 882	ARDINAL LABORATORIE		
(575) 393-2326 Fax (575) 393-2	it Maria	LA		
26 Fax	ınd, Ho	BOR		
x (575)	bbs, N	ATO		
393-	M 882	RIE		

240 240

Company Name: Cenary Phillips Project Manager: Justin Wight Address: City: Hobbs State: Man Zir Phone #: Fax #: Project Name: Emerald #4	State: Mn Zip: 88244 Fax #: Project Owner: LOX		P.O. #: Company:COPC Attn: Address: City: State: Zip:	"				A N	ANALYSIS	1 1	REQUEST		
Project Manager: Justin Wright Address: City: Hobbs Phone #: Project #: Project Name: Emerald #4	: Mm		s:	9:									
ame:	* NM?		pany:(C	9.									_
ame:	: N/M		888	9:									
ame:	t Owner		86	9.						_			
ame:	Project Owner: 10)	St CI		9:									
	and the state of t	St		0.							<u></u>		-0.0
					<u> </u>	-dues							
Project Location: (2)	•	व्य	Phone #:			-							
Sampler Name: Whit Night		Fa	Fax #:										
FOR LABUSE ONLY		MATRIX	PRESERV.	SAMPLING			5		_				
	-	TER !				,	IDE.						
Lab I.D. Sample I.D.	G)RAB OR (G) CONTAINE	GROUNDWA WASTEWATE SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE / COOL OTHER:	DATE TIME	TPH	BTEX	CHLOR						
11 8742-71	-		_	2-13-18	1	5	~			-	+		
12 542-91	6	***	1	2-13-18	-	×				+	+	i	
13 DH2-11	2	<u> </u>	2	2-13-18	K	<				+	<u> </u>	+	
14 17 42-131	6	1	1	2-13-18	-	-		+		<u> </u>	+		
15843-11	6	V .	4	2-13-8	`	\	1			-	+		
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[†] Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476. Cornected

(575) 393-232	101 East Marlan	ARDINAL LAB	2	7
(575) 393-2326 Fax (575) 393	101 East Marland, Hobbs, NM 88	ARDINAL LABORATORIE		

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707 East Mariand, Hobbs, NM 88240		'n
(575) 393-2326 Fax (575) 393-2476		Sept.
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Project Manager: Tustin Works +	P.O. #:	
Address:	Company: (C) RC	
City: 16665 State: WM Zip: 88240	Attn:	
	Address:	
Project #: Project Owner:	City:	
Project Name: FMOGAIO HL	State: Zip:	
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PLEASE NOTE: Labely and Damagne. Cardinat's valuely and cleant accusive remedy for any claim actually whether bested in control or fort, shall be feriled to the amount paid by the dent for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days about completion of the applicable service in no event shall Cardinal be sable for incidental or consequented damages, including without intellation, business thempoores, loss of use, or loss of profits thousand by claim, its substitutions,

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per answin from the original date of involce and all costs of collections, including attorney's fees.

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Fax Result:
REMARKS: S S Add'l Phone #:
Add'l Fax #:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

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Page 26 of 26

ATTACHMENT D Photographic Documentation



TETRA TECH, INC.	DESCRIPTION	View southeast of formerly impacted surface area.	1
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019



TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View south of formerly impacted surface area.	2
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019



TETRA TECH, INC.	DESCRIPTION	View southwest of the former impacted surface area, facing northwest.	3
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019



TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View northeast of the former impacted surface area. Impacted area was on north side of pipe.	4
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019



TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View east of the well pad south of the well head.	5
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019



TETRA TECH, INC. PROJECT NO.	DESCRIPTION	View east of the well pad.	6
212C-MD-01796	SITE NAME	Emerald Federal No. 6 Flowline Release	10/24/2019

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 187323

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	187323
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

E		Condition	Condition Date
	bhall	Depth to groundwater determination is inadequate but all samples meet the most stringent standards of Table I. Closure approved.	2/20/2023