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# **DELINEATION WORKPLAN**

# OXY – CEDAR CANYON 29 FED COM #3H (Leak Date: 08/5/17)

# RP # 2RP-4339 API # 30-015-42993

This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-4339.

The following information includes:

- 1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
- 2. GPS information for sample points and sample methodology
- 3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
- 4. Laboratory analysis results summary table and original laboratory analysis reports
- 5. A copy of the initial C-141
- 6. Potentially other pertinent information as necessary for site specific purposes.

# Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The leak area near SP1 – SP3 (pink shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP4 and SP5 (green shade on diagram) will be excavated to a depth of 4 feet with an impermeable liner placed in the bottom of the excavation. The leak area near SP9 (purple shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP6 – SP8 (blue shade on diagram) will require zero remediation activities.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.



Oxy, Cedar Canyon 29 Fed Com #3H

Sample points, hand auger

- SP1, N 32.18572 W-103.99140
- SP2, N 32.18571 W-103.99157
- SP3, N 32.18581 W-103.99167
- SP4, N 32.18584 W-103.99178
- SP5, N 32.18577 W-103.99191
- SP6, N 32.18569 W-103.99208
- SP7, N 32.18579 W-103.99204
- SP8, N 32.18582 W-103.99221
- SP9, N 32.18599 W-103.99190
- NORTH, N 32.18605 W-103.99185
- SOUTH, N 32.18562 W-103.99207
- EAST, N 32.18570 W-103.99133
- WEST, N 32.18581 W-103.99230

# Oxy, Cedar Canyon 29 Fed Com #3H U/L K, Section 28, T24S, R29E Groundwater: 75'



?

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

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

No records found.

# UTMNAD83 Radius Search (in meters):

Easting (X): 595056

Northing (Y): 3561557

**Radius:** 1700

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.

9/5/17 10:21 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

UTM Conversion Tool

Q64:	Q16: NE Q4: SW Set	c: 28 Tws: 245	Rng: 29E
O X: <mark>0 −</mark> ft	State Plane Coordinat	e System - NAD27	
O x: <mark>0 ft</mark>	State Plane Coordinat	e System - NAD83	
O Longitude (X): Latitude (Y):	Degrees/Minute Degrees: 0 ° Degrees: 0 °	es/Seconds Minutes: 0 ' Seconds Minutes: 0 ' Seconds	0 "
O Easting (X): 0	UTM - NA mtrs Northing (Y): 0	AD27 mtrs Zone:	
All	SUBI Conversion Results are display 595056.0 mtrs	ved as <u>NAD 1983 UTM Zom</u> Northing (Y): 3561557.0	e 13 mtrs
Easting (X):	~~ Please keep screen open to co	oy UTM values for Reports. ~~	
Easting (X):	~~ Please keep screen open to co	py UTM values for Reports. ~~	
Easting (X):	~~ Please keep screen open to co	py UTM values for Reports. ~~	

# Laboratory Analytical Results Summary Cedar Canyon 29 Fed Com #003H

		Sample ID	SP1 @ 1'	SP1 @ 3'	SP1 @ 4'	SP1@5'	SP1 @ 10'	SP1 @ 15'
Analyte	Method	Date	9/18/17	9/1817	9/18/17	9/18/17	9/18/17	9/18/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	e/u	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	e/u	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a	e/u	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a	e/u	<0.300
Chloride	SM4500CI-B		1680	560	336	64	32	16
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	e/u	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	e/u	<10.0

		Sample ID	SP2 @ 1'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'	SP2 @ 10'	SP2 @ 15'
Analyte	Method	Date	9/18/17	9/1817	9/18/17	9/18/17	9/18/17	9/18/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	n/a	n/a	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	n/a	n/a	<0.300
Chloride	SM4500CI-B		1600	464	320	32	16	16
GRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0

Analyte			5- C ( ( )	or o (w o	ars@ #	0 m c 1 c	213	212
	Method	Date	9/18/17	9/1817	9/18/17	9/18/17	9/18/17	9/18/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene BTE	EX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Toluene BTE	EX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Ethylbenzene BTE	EX 8021B		<0.050	<0.050	<0.050	n/a	n/a	<0.050
Total Xylenes BTE	EX 8021B		<0.150	<0.150	<0.150	n/a	n/a	<0.150
Total BTEX BTE	EX 8021B		<0.300	<0.300	<0.300	n/a	n/a	<0.300
Chloride SM <sup>4</sup>	4500CI-B		1620	512	304	16	16	32
GRO TPH	H 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0
DRO TPH	H 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0
ЕХТ DRO ТРН	H 8015M		<10.0	<10.0	<10.0	n/a	n/a	<10.0

		Sample ID	SP4 @ 1'	SP4 @ 2'	SP4 @ 4'	SP4 @ 6'	SP4 @ 8'	SP4 @ 11'	SP4 @ 14'	SP4 @ 16'	SP4 @ 17	SP4 @ 18'
Analyte	Method	Date	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	<0.050	n/a	n/a	n/a	n/a	<0:050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	n/a	<0.050	n/a	n/a	n/a	n/a	<0.050
Ethylbenzene	BTEX 8021B		<0:050	<0.050	<0.050	n/a	<0.050	n/a	n/a	n/a	n/a	<0:050
Total Xylenes	BTEX 8021B		0.427	<0.150	<0.150	n/a	<0.150	n/a	n/a	n/a	n/a	<0.150
Total BTEX	BTEX 8021B		0.427	<0.300	<0.300	n/a	<0.300	n/a	n/a	n/a	n/a	<0.300
Chloride	SM4500CI-B		2320	3320	4880	2720	816	096	968	416	432	16
GRO	TPH 8015M		67	10.5	<10.0	n/a	<10.0	n/a	n/a	n/a	n/a	<10.0
DRO	TPH 8015M		3280	1600	73	n/a	<10.0	n/a	n/a	n/a	n/a	<10.0
EXT DRO	TPH 8015M		578	355	40.9	n/a	<10.0	n/a	n/a	n/a	n/a	<10.0

# Laboratory Analytical Results Summary Cedar Canyon 29 Fed Com #003H

		Sample ID	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'	SP5 @ 5'	SP5 @ 6'	SP5 @ 7'	SP5 @ 8'	SP5 @ 13'	SP5 @ 18'
Analyte	Method	Date	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17	9/19/17
			mg/kg	mg/kg								
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a	n/a	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a	n/a	<0.300
Chloride	SM4500CI-B		1220	272	1440	1420	1280	560	576	208	256	224
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	<10.0

			SP6 @			
		Sample ID	SURFACE	SP6 @ 1'	SP6 @ 6'	SP6 @ 11'
Analyte	Method	Date	9/20/17	9/20/17	9/20/17	9/20/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		176	32	32	16
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

			SP7 @			
		Sample ID	SURFACE	SP7 @ 1'	SP7 @ 6'	SP7 @ 11'
Analyte	Method	Date	9/20/17	9/20/17	9/20/17	9/20/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		<16.0	<16.0	32	<16.0
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		138	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		59.6	<10.0	<10.0	<10.0

			SP8 @			
		Sample ID	SURFACE	SP8 @ 1'	SP8 @ 6'	SP8 @ 11
Analyte	Method	Date	9/20/17	9/20/17	9/20/17	9/20/17
			64/6w	mg/kg	mg/kg	64/6m
Benzene	BTEX 8021B		<0:050	<0.050	<0.050	<0:050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0:050
Ethylbenzene	BTEX 8021B		<0:050	<0.050	<0.050	<0:050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		224	80	224	368
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

# Laboratory Analytical Results Summary Cedar Canyon 29 Fed Com #003H

		Sample ID	SP9 @ 1'	SP9 @ 2'	SP9 @ 4'	SP9 @ 6'	SP9 @ 7'	SP9 @ 12'	SP9 @ 17'
Analyte	Method	Date	9/20/17	9/20/17	9/20/17	9/20/17	9/20/17	9/20/17	9/20/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	<0.050	<0.050	n/a	n/a	<0.050
Toluene	BTEX 8021B		<0.050	n/a	<0.050	<0.050	n/a	n/a	<0:050
Ethylbenzene	BTEX 8021B		<0.050	n/a	<0.050	<0.050	n/a	n/a	<0:050
Total Xylenes	BTEX 8021B		<0.150	n/a	<0.150	<0.150	n/a	n/a	<0.150
Total BTEX	BTEX 8021B		<0.300	n/a	<0.300	<0.300	n/a	n/a	<0.300
Chloride	SM4500CI-B		432	1620	784	752	240	304	336
GRO	TPH 8015M		<10.0	n/a	<10.0	<10.0	n/a	n/a	<10.0
DRO	TPH 8015M		1090	n/a	<10.0	<10.0	n/a	n/a	<10.0
EXT DRO	TPH 8015M		224	n/a	11.4	<10.0	n/a	n/a	<10.0

CARDINAL POINTS		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @
Analyte	Method	Date	9/20/17	9/20/17	21/02/6	9/20/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0:050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0:050	<0:050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0:050	<0:050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		32	32	48	16
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0



September 29, 2017

Cliff Brunson BBC International, Inc. P.O. Box 805

Hobbs, NM 88241

RE: CEDAR CANYON 29 FED COM #3H

Enclosed are the results of analyses for samples received by the laboratory on 09/22/17 9:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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.

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,

Celecz D. Keine

Celey D. Keene Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 1 @ 1 (H702583-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 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	1680	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	78.1	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	75.4	34.7-15	7						

## Cardinal Laboratories

# \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 1 @ 3 (H702583-02)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	<i>6</i> 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	560	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	78.1 9	28.3-164	4						
Surrogate: 1-Chlorooctadecane	76.1 9	34.7-157	7						

## **Cardinal Laboratories**

# \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 1 @ 4 (H702583-03)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	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	336	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	77.6 %	28.3-164	!						
Surrogate: 1-Chlorooctadecane	81.3 9	34.7-157	,						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 1 @ 5 (H702583-04)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/26/2017	ND	416	104	400	0.00	

# Sample ID: SP 1 @ 10 (H702583-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	ND	416	104	400	0.00	

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 1 @ 15 (H702583-06)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 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	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	59.9	% 28.3-164	1						
Surrogate: 1-Chlorooctadecane	64.2	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 2 @ 1 (H702583-07)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	<i>6</i> 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	71.2 9	28.3-164	1						
Surrogate: 1-Chlorooctadecane	74.6 %	34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 2 @ 3 (H702583-08)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.4 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	78.5 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 2 @ 4 (H702583-09)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	69.9 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	69.2 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 2 @ 5 (H702583-10)

Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	ND	416	104	400	0.00	

# Sample ID: SP 2 @ 10 (H702583-11)

Chloride, SM4500Cl-B	kg Analyzed By: AC								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/26/2017	ND	416	104	400	0.00	

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

#### Sample ID: SP 2 @ 15 (H702583-12)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	79.1	% 28.3-164	1						
Surrogate: 1-Chlorooctadecane	75.3	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 3 @ 1 (H702583-13)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	191	95.6	200	0.722	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	207	104	200	0.377	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	77.9	28.3-164	4						
Surrogate: 1-Chlorooctadecane	82.9	34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 3 @ 3 (H702583-14)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	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	512	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	68.8 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	76.7 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 3 @ 4 (H702583-15)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 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	304	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	65.7	% 28.3-164	!						
Surrogate: 1-Chlorooctadecane	71.0	% 34.7-157	,						

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 3 @ 5 (H702583-16)

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	09/26/2017	ND	416	104	400	0.00	

# Sample ID: SP 3 @ 10 (H702583-17)

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	09/26/2017	ND	416	104	400	0.00	

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Received:	09/22/2017	Sampling Date:	09/18/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

#### Sample ID: SP 3 @ 15 (H702583-18)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	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	32.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	62.5 9	28.3-164	!						
Surrogate: 1-Chlorooctadecane	68.9 %	34.7-157	,						

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# \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 4 @ 1 (H702583-19)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	0.427	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	0.427	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	138 %	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	2320	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	67.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	3280	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	578	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	88.2 %	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	119 %	6 34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 4 @ 2 (H702583-20)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	134 %	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.5	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	1600	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	355	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	70.8 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	95.4 9	34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 4 @ 4 (H702583-21)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4880	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	73.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	40.9	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	72.8 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	78.7 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 4 @ 6 (H702583-22)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	09/26/2017	ND	432	108	400	3.77	QM-07

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 4 @ 8 (H702583-23)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	09/26/2017	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	73.7 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	79.1 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 4 @ 11 (H702583-24)

Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	09/26/2017	ND	432	108	400	3.77	

# Sample ID: SP 4 @ 14 (H702583-25)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	09/26/2017	ND	432	108	400	3.77	

# Sample ID: SP 4 @ 16 (H702583-26)

Chloride, SM4500CI-B mg/kg			Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	09/26/2017	ND	432	108	400	3.77	

## Sample ID: SP 4 @ 17 (H702583-27)

Chloride, SM4500Cl-B mg/kg			Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	09/26/2017	ND	432	108	400	3.77	

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 4 @ 18 (H702583-28)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/26/2017	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	66.8	% 28.3-164	4						
Surrogate: 1-Chlorooctadecane	68.3	% 34.7-15	7						

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BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 5 @ 1 (H702583-29)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 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	1220	16.0	09/26/2017	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	78.7	28.3-164	1						
Surrogate: 1-Chlorooctadecane	82.2	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

# Sample ID: SP 5 @ 2 (H702583-30)

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	09/27/2017	ND	2.18	109	2.00	2.29	
Toluene*	<0.050	0.050	09/27/2017	ND	1.96	98.0	2.00	2.86	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.98	98.9	2.00	3.52	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	6.02	100	6.00	2.83	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	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	272	16.0	09/26/2017	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	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	74.2 9	28.3-164	4						
Surrogate: 1-Chlorooctadecane	76.1 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 5 @ 3 (H702583-31)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 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	1440	16.0	09/26/2017	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	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	63.0 \$	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	69.1 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 5 @ 4 (H702583-32)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1420	16.0	09/26/2017	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	65.4 9	28.3-164	1						
Surrogate: 1-Chlorooctadecane	67.8 9	34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 5 @ 5 (H702583-33)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	% 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	1280	16.0	09/26/2017	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	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	47.4 \$	28.3-164	4						
Surrogate: 1-Chlorooctadecane	48.2 9	34.7-157	7						

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Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 5 @ 6 (H702583-34)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	09/26/2017	ND	432	108	400	3.77	

## Sample ID: SP 5 @ 7 (H702583-35)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	09/26/2017	ND	432	108	400	3.77	

## Sample ID: SP 5 @ 8 (H702583-36)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	i By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	09/26/2017	ND	432	108	400	3.77	

### Sample ID: SP 5 @ 13 (H702583-37)

Chloride, SM4500CI-B	mg/	kg	Analyzed	i By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	09/26/2017	ND	432	108	400	3.77	

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Received:	09/22/2017	Sampling Date:	09/19/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

#### Sample ID: SP 5 @ 18 (H702583-38)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	09/26/2017	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	09/24/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/24/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/24/2017	ND					
Surrogate: 1-Chlorooctane	61.2	% 28.3-164	4						
Surrogate: 1-Chlorooctadecane	69.8	% 34.7-157	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 6 @ SURFACE (H702583-39)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 %	% 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	176	16.0	09/26/2017	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	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	61.6 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	69.4 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 6 @ 1 (H702583-40)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	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	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	50.3 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	60.3 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 6 @ 6 (H702583-41)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	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	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	61.7 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	68.4 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 6 @ 11 (H702583-42)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	55.6	% 28.3-164	4						
Surrogate: 1-Chlorooctadecane	60.8	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 7 @ SURFACE (H702583-43)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	<i>6</i> 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	138	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	59.6	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	69.3 %	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	88.8 9	34.7-15	7						

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BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 7 @ 1 (H702583-44)

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	09/27/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/27/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/27/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/27/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	189	94.7	200	2.55	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	196	97.8	200	0.898	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	51.7	% 28.3-164	4						
Surrogate: 1-Chlorooctadecane	56.9	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 7 @ 6 (H702583-45)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	76.9	28.3-164	4						
Surrogate: 1-Chlorooctadecane	88.8	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

#### Sample ID: SP 7 @ 11 (H702583-46)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	60.2	% 28.3-164	4						
Surrogate: 1-Chlorooctadecane	59.7	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 8 @ SURFACE (H702583-47)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.1 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	74.2 9	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 8 @ 1 (H702583-48)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.0 9	28.3-164	1						
Surrogate: 1-Chlorooctadecane	77.2 9	34.7-157	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 8 @ 6 (H702583-49)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	77.9	% 28.3-164	1						
Surrogate: 1-Chlorooctadecane	84.0	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

#### Sample ID: SP 8 @ 11 (H702583-50)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.4	28.3-164	1						
Surrogate: 1-Chlorooctadecane	77.2	34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 9 @ 1 (H702583-51)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	1090	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	224	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	78.69	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	92.4 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

## Sample ID: SP 9 @ 2 (H702583-52)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	09/26/2017	ND	416	104	400	0.00	

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 9 @ 4 (H702583-53)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	11.4	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	81.3 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	84.6 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 9 @ 6 (H702583-54)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 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	752	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	80.1	% 28.3-164	1						
Surrogate: 1-Chlorooctadecane	79.3	% 34.7-157	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 9 @ 7 (H702583-55)

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	09/26/2017	ND	416	104	400	0.00	

## Sample ID: SP 9 @ 12 (H702583-56)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	09/26/2017	ND	416	104	400	0.00	

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SP 9 @ 17 (H702583-57)

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	09/28/2017	ND	2.02	101	2.00	0.960	
Toluene*	<0.050	0.050	09/28/2017	ND	1.83	91.5	2.00	1.28	
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.87	93.7	2.00	0.0696	
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.68	94.7	6.00	0.269	
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	6 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	81.3 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	83.2 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: NORTH @ SURFACE (H702583-58)

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	09/28/2017	ND	2.02	101	2.00		
Toluene*	<0.050	0.050	09/28/2017	ND	1.86	92.9	2.00		
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.89	94.3	2.00		
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.72	95.3	6.00		
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	69.7 9	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	69.9 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: EAST @ SURFACE (H702583-59)

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	09/28/2017	ND	2.02	101	2.00		
Toluene*	<0.050	0.050	09/28/2017	ND	1.86	92.9	2.00		
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.89	94.3	2.00		
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.72	95.3	6.00		
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	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	32.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.1 %	28.3-16-	4						
Surrogate: 1-Chlorooctadecane	73.2 9	34.7-15	7						

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Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: WEST @ SURFACE (H702583-60)

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	09/28/2017	ND	2.02	101	2.00		
Toluene*	<0.050	0.050	09/28/2017	ND	1.86	92.9	2.00		
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.89	94.3	2.00		
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.72	95.3	6.00		
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	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	48.0	16.0	09/26/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	70.1 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	70.3 9	34.7-15	7						

### **Cardinal Laboratories**

## \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



BBC International, Inc. Cliff Brunson P.O. Box 805 Hobbs NM, 88241 Fax To: (575) 397-0397

Received:	09/22/2017	Sampling Date:	09/20/2017
Reported:	09/29/2017	Sampling Type:	Soil
Project Name:	CEDAR CANYON 29 FED COM #3H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

### Sample ID: SOUTH @ SURFACE (H702583-61)

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	09/28/2017	ND	2.02	101	2.00		
Toluene*	<0.050	0.050	09/28/2017	ND	1.86	92.9	2.00		
Ethylbenzene*	<0.050	0.050	09/28/2017	ND	1.89	94.3	2.00		
Total Xylenes*	<0.150	0.150	09/28/2017	ND	5.72	95.3	6.00		
Total BTEX	<0.300	0.300	09/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	% 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	09/26/2017	ND	400	100	400	3.92	
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	09/25/2017	ND	181	90.6	200	1.81	
DRO >C10-C28	<10.0	10.0	09/25/2017	ND	198	99.0	200	1.73	
EXT DRO >C28-C36	<10.0	10.0	09/25/2017	ND					
Surrogate: 1-Chlorooctane	73.3 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	73.9 9	% 34.7-15	7						

#### Cardinal Laboratories

## \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by 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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shate the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Q cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, whose sinterruptors, loss of use, or loss of profits incurred by client, its subsidiaries, afflicate or successor arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such clim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

010105 501015 501015 50105 50105 50105 50105	Hadden Sample I.D.	Project Name: Cedar Conyon 29 Fed Project Location: Eddy Curunty Sampler Name: Jeff Ornelas	Address: P.O. Box 805 City: Hobbs State: NM Phone #: 575-397-6388 Fax #: 575 Project Owne	ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 887 (505) 393-2326 FAX (505) 393-247 Company Name: BBC International, Inc.
N         OC(11)         N <td>G)RAB OR (C)OMP.       # CONTAINERS       GROUNDWATER       WASTEWATER       &lt;</td> OIL       SLUDGE       OTHER :       ACID/BASE:       <	G)RAB OR (C)OMP.       # CONTAINERS       GROUNDWATER       WASTEWATER       <	(Con #3) H State: Zip: Phone #: Fax #: PRESERV SAMPLING	Zip:         88241         Company:         Oxy           -397-0397         Attn:         Difference         Difference           -397-0397         Address:         City:         City:	CHAIN-OF-C
	C BTPX	+		USTODY AND ANALYSIS REQUEST

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Project Manager	Cliff Brunson		P.O. #:			
Address: P.O.	Box 805		Company: 034			_
ritu: Hobbs	State: NN	zip: 88241	Attn: DTHILL	(		_
Phone #: 575-3	97-6388 Fax #: 5	75-397-0397	Address:			-
Droiget #	Project Ow	ner: OXV	City:			
Project Name:	Prime Conversion 29 FP	d Com#3H	State: Zip:			
	Cild. (Mint		Phone #:			
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Project Manager: Cliff Brunson city: Hobbs Address: P.O. Box 805 Company Name: BBC International, Inc. Phone #: 575-397-6388 Project #: Sampler Name: Project Name: Ctubr Project Location: Eddly Corner FOR LAB USE ONLY Relinquished B analyses. All claims including those for negligence and any other service. In no event shall Cardinal be liable for incidental or const 4702583 Relinquished By: Lab I.D. 5 4S 44 5 42 84 47 # 3 3 (505) 393-2326 FAX (505) 393-2476 05 SPID V 1ef 3 6 0 C 0 30 8 80 n 90 D 8 Sample I.D. 2 umpla 22 D Canadan 0 Sar 6 SWF Fax #: Project Owner: () > Y Time: AU LI OCIDA State: NM Date: 1 20 ntal damages, including without limitation, business inter 575-397-0397 Fed Com shall be deemed waived unless made in writing and received by Cardinal within 30 days zip: 88241 (G)RAB OR (C)OMP 9 5 5 59 5 S 5 P 5 **Received By:** Received By: 5 Halis general # CONTAINERS GROUNDWATER 耳 WASTEWATER 4r MATRIX SOIL < < < OIL SLUDGE P.O. #: act or tort, shall be limited to the City: Fax #: Phone #: State: Attn: OTHER Company: ( Address: loss of use, or loss of profits incurred PRESERV ar. ACID/BASE 4 ICE / COOL 4 K\_ C, 4 4 C < BILL TO OTHER Zip: C 1.30.17 10103 SAMPLING DATE by client, its subsidiaries. after Phone Result: Fax Result: REMARKS: 512,01 10,45 10:33 OC? DI 10:18 ic ild by the cire 0 SCID TIME 32 tion of the app for the C CI □ Yes C BTOX < TPHEXT I No ANALYSIS REQUEST Add'l Phone # Add'l Fax #:

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Project Manager: Cliff Brunson city: Hobbs Address: P.O. Box 805 Company Name: BBC International, Inc. Project #: Phone #: 575-397-6388 Project Name: (Pdan Sampler Name: Project Location: FOR LAB USE ONLY Relinquished inalyses. All claims including those for negligence and any other ervice. In no event shall Cardinal be sable for incidental or consi 470253 Lab I.D. LEASE NOTE: 42 D 53 SS 5 3 20 0 (505) 393-2326 FAX (505) 393-2476 E OA 106 29 U P q a y ٤ 0 Jeff'drnelo Col C106 2 0 Ð Connun Sample I.D. Suit 04ntu 3 WY 12 20 Project Owner: UX4 Fax #: Timery Date: 0/20/17 Pada 100/17 State: NM ntal damages, including without limitation, business Fed 575-397-0397 shall be deemed [Cum zip: 88241 (G)RAB OR (C)OMP P 5 5 5 5 5 5 5 **Received By:** Received By: thun # CONTAINERS waived unless made in writing and reo T GROUNDWATER WASTEWATER 5 T MATRIX SOIL 54 < K 5 < OIL Donoy! / SLUDGE P.O. #: act or tort, shall be limited to the Fax #: State: City: Attn: Company: () OTHER Phone #: Address: toss of use, or loss of profits incurred ACID/BASE PRESERV sived by Cardinal within 30 days ed upon any of the ab ICE / COOL 4 5 5 4 BILL TO OTHER Zip: LINCAN DATE SAMPLING by client, its subsidiaries ł Phone Result: Fax Result: REMARKS: 11:33 oun Ag TIME is (H) 12 5 ion of the app for th K C < BTex □ Yes K 5 TPH EX+ I No ANALYSIS REQUEST Add'l Phone #: Add'l Fax #:

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Company Name: BBC International, Inc.	BILL TO ANALISIS ILLESS
Project Manager: Cliff Brunson	P.O. 井
Address: P.O. Box 805	Company: 074
city: Hobbs State: NM Zip: 88241	Attn: DYMO
Phone #: 575-397-6388 Fax #: 575-397-0397	Address:
Project #: Project Owner: 0 XY	City:
Project Name: Cedar Canyon 20 Fed Can = 34	State: Zip:
Project Location: Eddy Country	Phone #:
Sampler Name: J CA Orme las	Fax #:
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NM OIL CONSERVATION

ARTESIA DISTRICT

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District.III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 8750

State of New Mexico **Energy Minerals and Natural Resources**  AUG 1 0 2017

Form C-141 Revised April 3, 2017

RECEIVED y to appropriate District Office in accordance with 19.15.29 NMAC.

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

# **Release Notification and Corrective Action**

NAB 1722640005	OPERATOR	🛛 Initial I	Report 🔲 Final Report
Name of Company OXY USA INC	Contact WADE DITTRICH		
Address PO BOX 4294; HOUSTON, TX 77210	Telephone No. 575-390-2828	and the second	
Facility Name CEDAR CANYON 29 FEDERAL C	OM #3H Facility Type OIL WELL		
Surface Owner Mine	ral Owner FEDERAL	API No.	30-015-42993

## Mineral Owner FEDERAL LOCATION OF DELEASE

LUCATION OF RELEASE									
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
Н	29	24S	29E	1990	NORTH	210	EAST	EDDY	

Latitude\_32.190250 \_\_ Longitude\_-103.9986 \_\_ NAD83

NATURE OF RELEASE

Type of Release OIL & PRODUCED WATER	Volume of Release 8 bbls OIL & 2 bbls PRODUCED WATER	Volume Recovered 0 bbls					
Source of Release 4 inch poly line failure	Date and Hour of Occurrence 08/05/2017	Date and Hour of Discovery					
Was Immediate Notice Given?	If YES, To Whom? MIKE BRATCHER-NMOCD; CRYSTAL WEAVER-NMOCD; SHELLY TUCKER-BLM						
By Whom? WADE DITTRICH	Date and Hour 08/07/2017 @ 11:	38 AM 10:38 am * 8- MQ1					
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.						
If a Watercourse was Impacted, Describe Fully.*							
Describe Cause of Problem and Remedial Action Taken.*	an a succession of the second s	angeng "manufacturation and a second se					
Spill occurred due to a 4 inch poly line failure. Line has been repaired and put back in service.							
Describe Area Affected and Cleanup Action Taken.*							
The impacted area is approximately 25x100 FT, Leak did leave the location-leak is behind the Cedar Canyon 28 4 CTB (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and BLM.							
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Signature: Worke Statis	OIL CONSERVATION DIVISION Signed By Mile Branches						
Printed Name: WADE DITTRICH							
Title: ENVIROMENTAL COORDINATOR	Approval Date: SIDIT Expiration Date: NIA						
E-mail Address: wade_dittrich@oxy.com	Conditions of Approval:	Attachya 12, 12,20					
Date: 8/8/2017 Phone: 575-390-2828	See attached	0KP-4221					

\* Attach Additional Sheets If Necessary

## Operator/Responsible Party,

The OCD has received the form C-141 you provided on  $\frac{8/10/2017}{1}$  regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number  $\frac{8/10/2017}{1}$  has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District <u>2</u> office in <u>ARTESIA</u> on or before <u>9/10/2017</u>. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

• Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

• Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

• Nominal detection limits for field and laboratory analyses must be provided.

• Composite sampling is not generally allowed.

• Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us
## Bratcher, Mike, EMNRD

From:	Wade_Dittrich@oxy.com
Sent:	Thursday, August 10, 2017 8:56 AM
То:	Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc:	stucker@blm.gov; cbrunson@bbcinternational.com; kathy@bbcinternational.com;
	kswinney@bbcinternational.com; jgilkey@bbcinternational.com;
	Jennifer_Smith@oxy.com
Subject:	Cedar Canyon 29 Fed. Com 0003H
Attachments:	Initial C-141-signed.pdf

All,

Attached is the Initial C-141. Please review and let me know if you have any questions. Thank you.

Wade Dittrich Environmental Coordinator Oxy Permian-New Mexico 575.390.2828 cell Wade\_Dittrich@Oxy.com

## Weaver, Crystal, EMNRD

From:	Wade_Dittrich@oxy.com
Sent:	Monday, August 7, 2017 10:42 AM
То:	Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc:	stucker@blm.gov; cbrunson@bbcinternational.com; kathy@bbcinternational.com; jgilkey@bbcinternational.com; kswinney@bbcinternational.com; lennifer_Smith@ovy.com
Subject:	RE: Cedar Canyon 29 St. 0003H

Correction on report—It is the Cedar Canyon 29 State 0003H-sorry

## Wade Dittrich

Environmental Coordinator Oxy Permian-New Mexico 575.390.2828 cell Wade\_Dittrich@Oxy.com

From: Dittrich, John W (Ervin Well Site Consultants)

Sent: Monday, August 7, 2017 10:38 AM 🔭

To: 'Bratcher, Mike, EMNRD' <mike.bratcher@state.nm.us>; 'Weaver, Crystal, EMNRD' <Crystal.Weaver@state.nm.us> Cc: 'stucker@blm.gov' <stucker@blm.gov>; cbrunson@bbcinternational.com; kathy@bbcinternational.com; Jennifer Gilkey <jgilkey@bbcinternational.com>; kswinney@bbcinternational.com; Smith, Jennifer A <Jennifer\_Smith@oxy.com> Subject: Cedar Canyon 29 St. 0003H

All,

This is to inform you that Oxy Permian had a **Reportable** release in **Eddy County** at the <u>Cedar Canyon 2 SWD Battery</u> on 8/5/2017.

- Release Location: Legal -29-24S-29E, API: 30-015-214250
- Release Volume: 8 bbls of Oil and 2 bbls of Produced Water.
- Recovered: 0 bbls recovered
- Cause of Release: 4 inch poly line failure
- Approximate Area impacted by release: 25x100 FT, Leak did leave the location-leak is behind the Cedar Canyon 28 4 CTB (measurements are subject to change with GPS tracking)
- GPS Coordinates and Driving Direction: 32.190250 ,-103.9986 FROM CARLSBAD NM TAKE HWY 285 GOING SOUTH TO MALAGA TURN LEFT ON DUERTE RD GO 3 MILES TURN RIGHT ON MCDONALD ROAD AND GO 6 MILES TURN RIGHT TO THE LOCATION

Please let me know if you have any questions.

Wade Dittrich Environmental Coordinator Oxy Permian-New Mexico