



## DELINEATION WORKPLAN

### OXY – GOODNIGHT 26 FEDERAL 1 BATTERY (Leak Date: 12/5/18)

#### RP # 2RP-5212

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This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5212.

The following information includes:

1. Appropriate completed and signed C-141 pages.
2. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
3. GPS information for sample points and sample methodology.
4. Depth to groundwater information (i.e., pdf of OSE search results, USGS search results, and/or copy of Chevron groundwater trend map).
5. Watercourse/features map within 1000 feet.
6. BLM Cave Karst map.
7. FEMA National Flood map.
8. Laboratory analysis results summary table and original laboratory analysis reports.
9. Potentially other pertinent information as necessary for site specific purposes.

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

***OXY will excavate the spill area as depicted on the following site diagram. The leak areas near SP1 and SP2 (GREEN shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP3 (PURPLE shade on diagram) will be excavated to a depth of 4 feet.***

***Bottom confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 269 cubic yards. The remediation will be completed within 90 days of plan approval.***

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.

Goodnight 12/5/18  
26-1

Incident ID	
District RP	2RP-5212
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	50 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	2RP-5212
Facility ID	
Application ID	

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

Printed Name: Wade Dittrich Title: Environmental Coordinator  
Signature:  Date: 2-8-19  
email: wade\_dittrich@oxy.com Telephone: (575) 390-2828

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	2RP-5212
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: Wade Dittrich Title: Environmental Coordinator  
Signature:  Date: 2-8-18  
email: wade\_dittrich@oxy.com Telephone: (575) 390-2828

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_





☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# Oxy, Goodnight 26 Federal 1 Battery

Leak date: 12/5/18  
Eddy County, NM  
API# 30-015-40007  
2RP-5212

## Legend

-  2 ft Excavation
-  4 ft Excavation
-  Leak area
-  Sample points



Oxy, Goodnight 26 Federal 1 Battery

Sample points

SP1, N 32.27332 W-103.94751

SP2, N 32.27325 W-103.94746

SP3, N 32.27331 W-103.94740

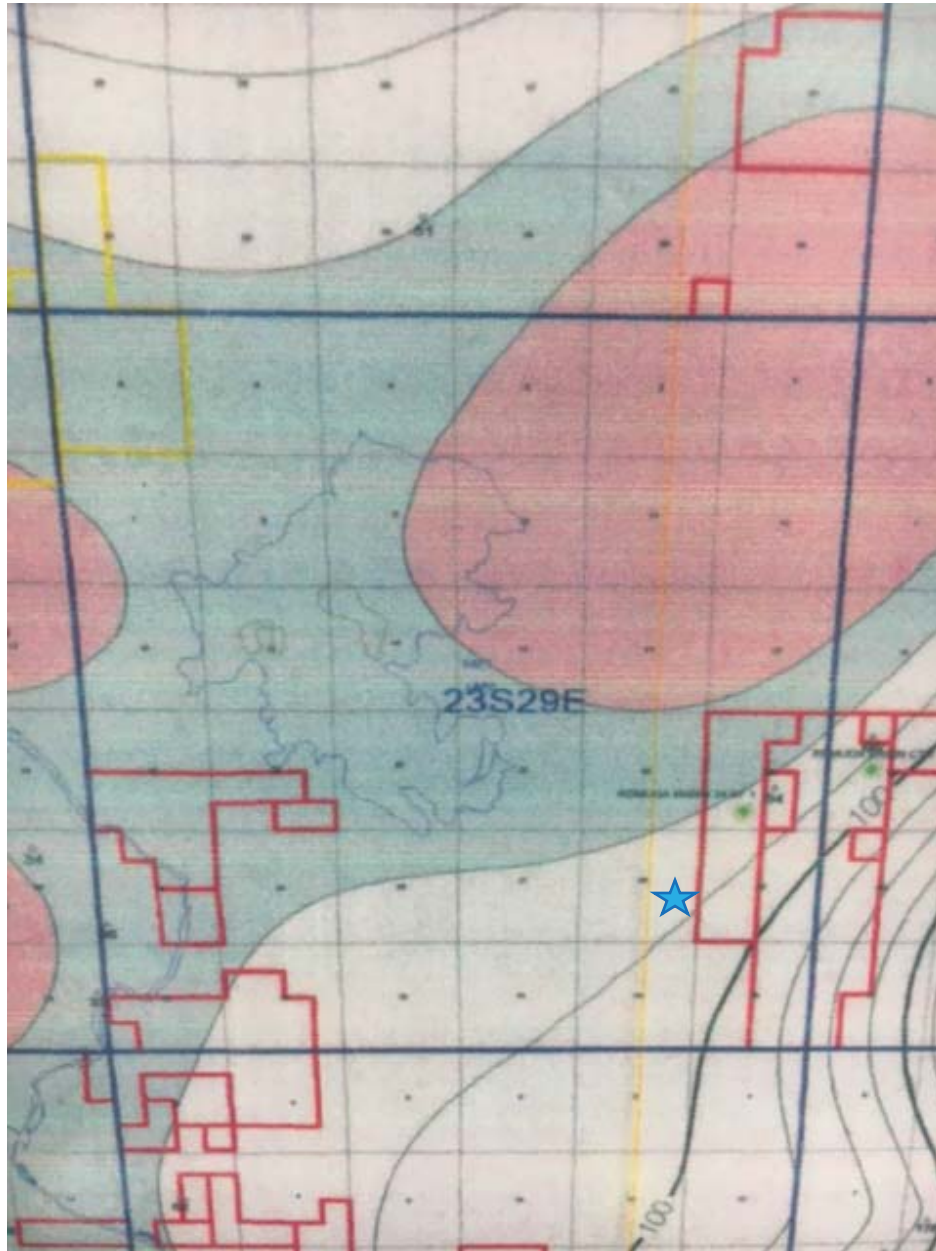
NORTH, N 32.27342 W-103.94744

SOUTH, N 32.27312 W-103.94745

EAST, N 32.27327 W-103.94729

WEST, N 32.27334 W-103.94756

**Oxy, Goodnight 26 Federal #1 Battery**  
**U/L I, Section 26, T23S, R29E**  
**Groundwater: 50'-75'**





USGS Home  
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## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:  Geographic Area:

Click to hideNews Bulletins

- Due to a lapse in appropriations, the majority of USGS websites may not be up to date and may not reflect current conditions. Websites displaying real-time data, such as Earthquake and Water and information needed for public health and safety will be updated with limited support. Additionally, USGS will not be able to respond to inquiries until appropriations are enacted. For more information, please see [www.doi.gov/shutdown](http://www.doi.gov/shutdown).
- [Please see news on new formats](#)
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 321717103561001

Minimum number of levels = 1

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

### USGS 321717103561001 23S.29E.24.41321

Eddy County, New Mexico

Latitude 32°17'17", Longitude 103°56'10" NAD27

Land-surface elevation 3,034 feet above NAVD88

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

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurment
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1983-02-02		D	52.17				2		U	
1987-10-14		D	50.54				2		U	
1992-11-16		D	54.14				2		S	
2003-01-29		D	50.26				2		S	USGS

#### Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey

Section	Code	Description
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
<a href="#">Source of measurement</a>	U	<a href="#">Source is unknown.</a>
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for New Mexico: Water Levels**

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

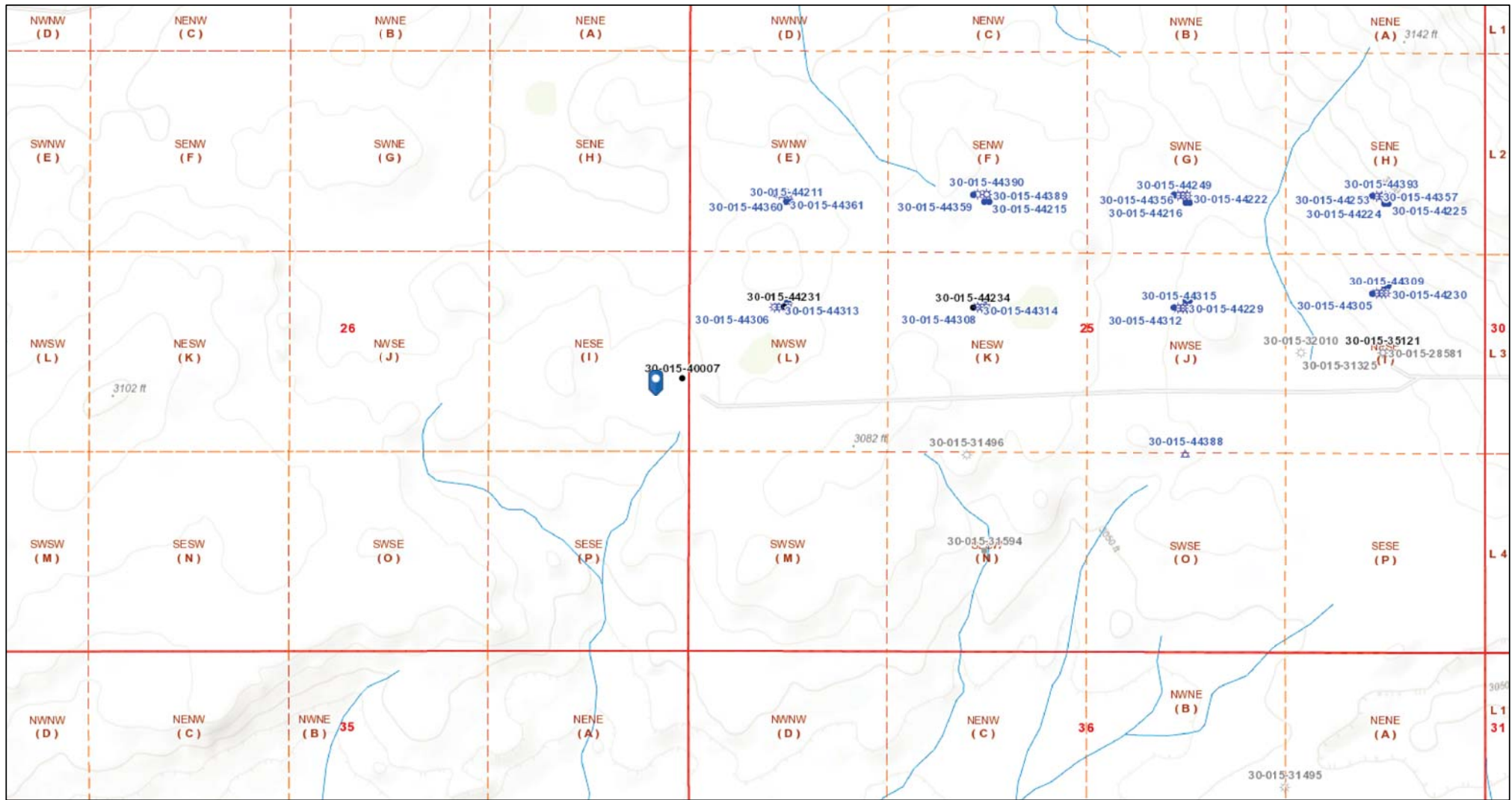


Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2019-01-08 14:01:54 EST

2.08 0.75 nadww01

# Goodnight 26 Federal 1 Battery, TOPO Map with Water Features



12/19/2018 12:37:23 PM

1:9,028

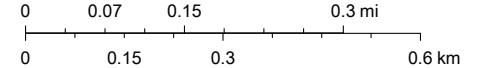
Well Locations - Small Scale

Well Locations - Large Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned

- ☆ Gas Active
- ☆ Gas, Cancelled, Never Drilled
- ☆ Gas, New
- ☆ Gas, Plugged
- ☆ Gas, Temporarily Abandoned
- ☆ Injection, Active
- ☆ Injection, Cancelled
- ☆ Injection, New
- ☆ Injection, Plugged
- ☆ Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled

- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New
- △ Salt Water Injection, Plugged
- △ Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged





Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, OCD, BLM

# Oxy, Goodnight 26 Federal #1 Battery

Leak date: 12/5/18  
Eddy County, NM  
AP# 30-015-40007

## BLM CAVE KARST MAP

### Legend

-  Leak Area
-  Medium potential



Google Earth

© 2018 Google

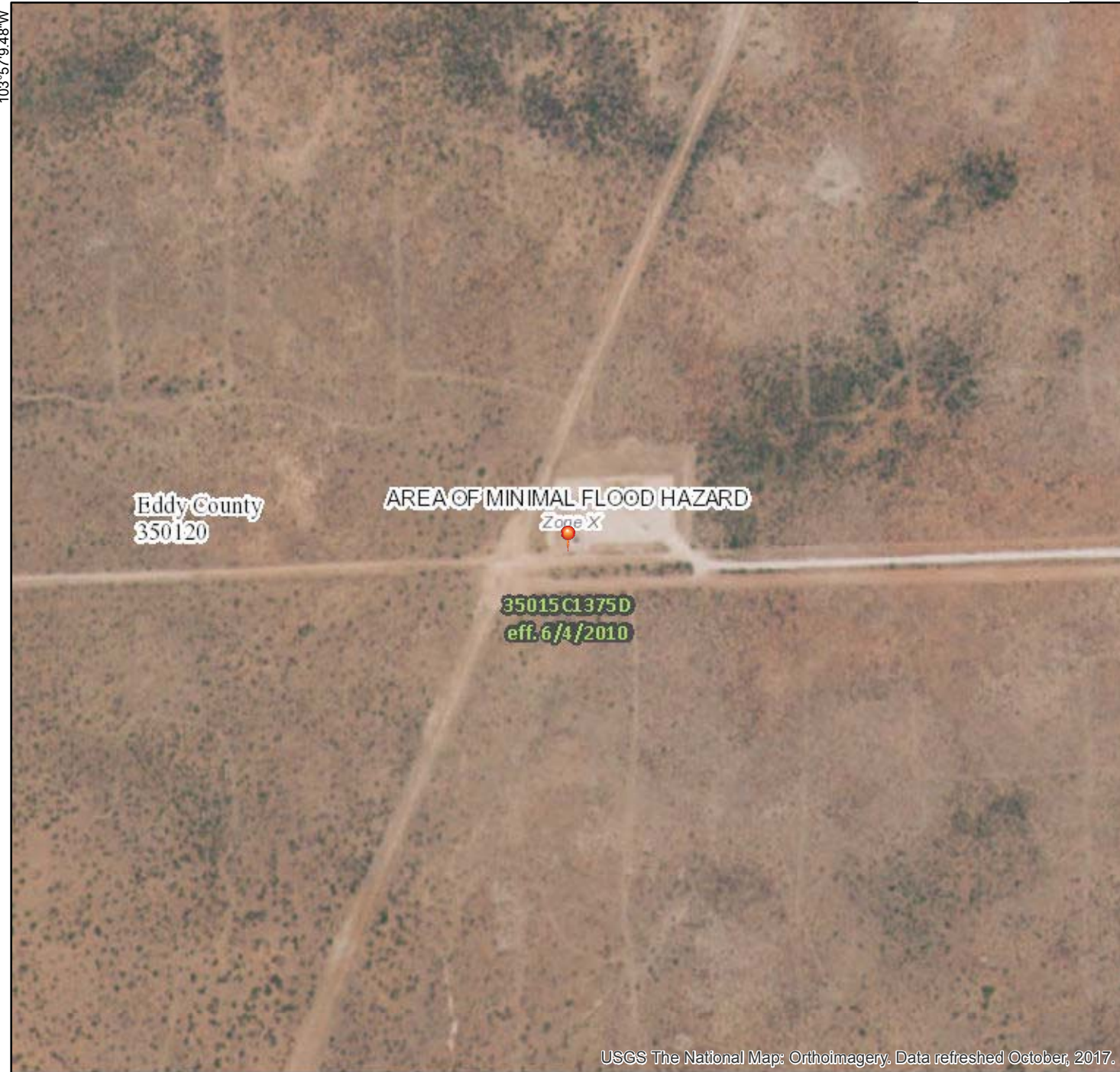


1000 ft

# National Flood Hazard Layer FIRMette



32°16'38.91"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

USGS The National Map: Orthoimagery. Data refreshed October, 2017.

## Legend

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

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



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/8/2019 at 2:13:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



Laboratory Analytical Results Summary  
Goodnight 26 Federal #1H (12/5/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	1/3/19	1/3/19	1/3/19	1/3/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.051	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.706	0.245	<0.050	<0.050
Ethylbenzene	BTEX 8021B		0.203	0.93	<0.050	0.081
Total Xylenes	BTEX 8021B		1.34	1.44	<0.150	0.297
Total BTEX	BTEX 8021B		2.3	2.62	<0.300	0.378
Chloride	SM4500Cl-B		32	48	160	272
GRO	TPH 8015M		<50.0	22.9	<10.0	<10.0
DRO	TPH 8015M		10900	843	72.8	45.6
EXT DRO	TPH 8015M		5480	250	32.5	<10.0

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'
Analyte	Method	Date	1/3/19	1/3/19	1/3/19	1/3/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.186	0.209	0.064	<0.050
Ethylbenzene	BTEX 8021B		0.088	0.852	0.144	<0.050
Total Xylenes	BTEX 8021B		0.615	1.11	0.973	<0.150
Total BTEX	BTEX 8021B		0.889	2.17	1.18	<0.300
Chloride	SM4500Cl-B		80	32	32	32
GRO	TPH 8015M		<10.0	60	17	<10.0
DRO	TPH 8015M		3560	2850	423	23.6
EXT DRO	TPH 8015M		1630	530	60.1	<10.0

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'	SP3 @ 6'	SP3 @ 7'
Analyte	Method	Date	1/3/19	1/3/19	1/3/19	1/3/19	1/3/19	1/3/19	1/3/19	1/3/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		2.2	<0.050	<0.050	<0.200	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		24.1	0.107	<0.050	1.6	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		10.8	0.305	<0.050	2.55	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		77.8	1.49	<0.150	19.2	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		115	1.9	<0.300	23.3	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		32	32	48	16	32	32	112	80
GRO	TPH 8015M		1900	65.9	<10.0	346	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		42000	1110	117	3260	139	52.3	86.8	77.7
EXT DRO	TPH 8015M		7740	206	31	513	42	11.3	12.6	<10.0

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	1/3/19	1/3/19	1/3/19	1/3/19
			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	SM4500Cl-B		192	64	80	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		57.2	<10.0	46.3	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

January 11, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: GOODNIGHT 26-1

Enclosed are the results of analyses for samples received by the laboratory on 01/07/19 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 01/07/2019  
Reported: 01/11/2019  
Project Name: GOODNIGHT 26-1  
Project Number: NONE GIVEN  
Project Location: OXY

Sampling Date: 01/03/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 @ SURFACE (H900023-01)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.051</b>	0.050	01/10/2019	ND	2.09	105	2.00	1.78	
<b>Toluene*</b>	<b>0.706</b>	0.050	01/10/2019	ND	2.22	111	2.00	3.34	
<b>Ethylbenzene*</b>	<b>0.203</b>	0.050	01/10/2019	ND	2.21	111	2.00	0.317	
<b>Total Xylenes*</b>	<b>1.34</b>	0.150	01/10/2019	ND	6.79	113	6.00	0.690	
<b>Total BTX</b>	<b>2.30</b>	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	01/09/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<50.0	50.0	01/08/2019	ND	209	105	200	3.08		
<b>DRO &gt;C10-C28*</b>	<b>10900</b>	50.0	01/08/2019	ND	190	95.1	200	4.24		
<b>EXT DRO &gt;C28-C36</b>	<b>5480</b>	50.0	01/08/2019	ND						

Surrogate: 1-Chlorooctane 79.9 % 41-142

Surrogate: 1-Chlorooctadecane 522 % 37.6-147

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 1 @ 1' (H900023-02)**

BTEx 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	2.09	105	2.00	1.78	
Toluene*	<b>0.245</b>	0.050	01/10/2019	ND	2.22	111	2.00	3.34	
Ethylbenzene*	<b>0.930</b>	0.050	01/10/2019	ND	2.21	111	2.00	0.317	
Total Xylenes*	<b>1.44</b>	0.150	01/10/2019	ND	6.79	113	6.00	0.690	
Total BTEX	<b>2.62</b>	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 174 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>48.0</b>	16.0	01/09/2019	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*	<b>22.9</b>	10.0	01/08/2019	ND	209	105	200	3.08	
DRO >C10-C28*	<b>843</b>	10.0	01/08/2019	ND	190	95.1	200	4.24	
EXT DRO >C28-C36	<b>250</b>	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 75.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 1 @ 2' (H900023-03)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/09/2019	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	01/08/2019	ND	209	105	200	3.08	
DRO >C10-C28*	72.8	10.0	01/08/2019	ND	190	95.1	200	4.24	
EXT DRO >C28-C36	32.5	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 84.6 % 37.6-147

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**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 1 @ 3' (H900023-04)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	<0.050	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	<b>0.081</b>	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	<b>0.297</b>	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTEX	<b>0.378</b>	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>272</b>	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	<b>45.6</b>	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 80.5 % 41-142

Surrogate: 1-Chlorooctadecane 91.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 2 @ SURFACE (H900023-05)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	0.186	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	0.088	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	0.615	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTEX	0.889	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/09/2019	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	3560	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	1630	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 86.3 % 41-142

Surrogate: 1-Chlorooctadecane 187 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 2 @ 1' (H900023-06)**

BTEx 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	<b>0.209</b>	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	<b>0.852</b>	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	<b>1.11</b>	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTEX	<b>2.17</b>	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 176 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>32.0</b>	16.0	01/09/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>60.0</b>	10.0	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	<b>2850</b>	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<b>530</b>	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 96.2 % 41-142

Surrogate: 1-Chlorooctadecane 185 % 37.6-147

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**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 2 @ 2' (H900023-07)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57	
<b>Toluene*</b>	<b>0.064</b>	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46	
<b>Ethylbenzene*</b>	<b>0.144</b>	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60	
<b>Total Xylenes*</b>	<b>0.973</b>	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25	
<b>Total BTEX</b>	<b>1.18</b>	0.300	01/10/2019	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	01/09/2019	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
<b>GRO C6-C10*</b>	<b>17.0</b>	10.0	01/08/2019	ND	176	87.9	200	5.53	
<b>DRO &gt;C10-C28*</b>	<b>423</b>	10.0	01/08/2019	ND	190	95.2	200	7.22	
<b>EXT DRO &gt;C28-C36</b>	<b>60.1</b>	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 2 @ 3' (H900023-08)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	23.6	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 88.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.1 % 37.6-147

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**Analytical Results For:**

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

Received: 01/07/2019  
Reported: 01/11/2019  
Project Name: GOODNIGHT 26-1  
Project Number: NONE GIVEN  
Project Location: OXY

Sampling Date: 01/03/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 3 @ SURFACE (H900023-09)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.20	1.00	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	24.1	1.00	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	10.8	1.00	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	77.8	3.00	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTX	115	6.00	01/10/2019	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1900</b>	50.0	01/08/2019	ND	176	87.9	200	5.53	
<b>DRO &gt;C10-C28*</b>	<b>42000</b>	50.0	01/08/2019	ND	190	95.2	200	7.22	
<b>EXT DRO &gt;C28-C36</b>	<b>7740</b>	50.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 139 % 41-142

Surrogate: 1-Chlorooctadecane 1330 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 1' (H900023-10)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	0.107	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	0.305	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	1.49	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTEX	1.90	0.300	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/09/2019	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*	65.9	10.0	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	1110	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	206	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 137 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 2' (H900023-11)**

BTX 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	01/10/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/10/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/10/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/10/2019	ND	5.79	96.6	6.00	2.25		
Total BTX	<0.300	0.300	01/10/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53		
DRO >C10-C28*	117	10.0	01/08/2019	ND	190	95.2	200	7.22		
EXT DRO >C28-C36	31.0	10.0	01/08/2019	ND						

Surrogate: 1-Chlorooctane 90.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.9 % 37.6-147

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 3' (H900023-12)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/10/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	1.60	0.200	01/10/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	2.55	0.200	01/10/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	19.2	0.600	01/10/2019	ND	5.79	96.6	6.00	2.25	
Total BTX	23.3	1.20	01/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/09/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-04					

Surrogate: 1-Chlorooctane 117 % 41-142

Surrogate: 1-Chlorooctadecane 182 % 37.6-147

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Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 4' (H900023-13)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTEx	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	139	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	42.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 87.3 % 41-142

Surrogate: 1-Chlorooctadecane 99.1 % 37.6-147

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Fax To: (575) 397-0397

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 5' (H900023-14)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53		
DRO >C10-C28*	52.3	10.0	01/08/2019	ND	190	95.2	200	7.22		
EXT DRO >C28-C36	11.3	10.0	01/08/2019	ND						

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.0 % 37.6-147

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Fax To: (575) 397-0397

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 6' (H900023-15)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	86.8	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	12.6	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 88.3 % 41-142

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SP 3 @ 7' (H900023-16)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	77.7	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 88.8 % 41-142

Surrogate: 1-Chlorooctadecane 97.4 % 37.6-147

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: NORTH @ SURFACE (H900023-17)**

BTX 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	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	57.2	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

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P.O. Box 805  
Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: EAST @ SURFACE (H900023-18)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57	
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46	
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60	
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25	
Total BTEx	<0.300	0.300	01/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-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	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	<10.0	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 83.3 % 41-142

Surrogate: 1-Chlorooctadecane 84.7 % 37.6-147

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Hobbs NM, 88241  
Fax To: (575) 397-0397

Received: 01/07/2019  
Reported: 01/11/2019  
Project Name: GOODNIGHT 26-1  
Project Number: NONE GIVEN  
Project Location: OXY

Sampling Date: 01/03/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: WEST@ SURFACE (H900023-19)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTEX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	46.3	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 87.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	01/07/2019	Sampling Date:	01/03/2019
Reported:	01/11/2019	Sampling Type:	Soil
Project Name:	GOODNIGHT 26-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	OXY		

**Sample ID: SOUTH @ SURFACE (H900023-20)**

BTX 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	01/11/2019	ND	1.79	89.5	2.00	2.57		
Toluene*	<0.050	0.050	01/11/2019	ND	1.86	92.8	2.00	1.46		
Ethylbenzene*	<0.050	0.050	01/11/2019	ND	1.91	95.3	2.00	2.60		
Total Xylenes*	<0.150	0.150	01/11/2019	ND	5.79	96.6	6.00	2.25		
Total BTX	<0.300	0.300	01/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/09/2019	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	01/08/2019	ND	176	87.9	200	5.53	
DRO >C10-C28*	<10.0	10.0	01/08/2019	ND	190	95.2	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	01/08/2019	ND					

Surrogate: 1-Chlorooctane 86.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report



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Celey D. Keene, Lab Director/Quality Manager



# **CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

## **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

1 of 2

Company Name: BBC International, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">TPH Extended</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">CI</div> </div>											
Address: P.O. Box 805				Company:															
City: Hobbs		State: NM Zip: 88241		Attn:															
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:															
Project #:		Project Owner: Oxy		City:															
Project Name: Goodnight 26-1				State: Zip:															
Project Location:				Phone #:															
Sampler Name: Jeff Ornelas				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING					
								GROUNDWATER											
								WASTEWATER											
								SOIL											
								OIL											
								SLUDGE											
								OTHER :											
								ACID/BASE:											
								ICE / COOL											
								OTHER :											
												DATE		TIME					
H900023																			
1		SP1 @ SURFACE		G		1								1-3-19		9:19 AM			
2		SP1 @ 1'												1-3-19		9:30 AM			
3		SP1 @ 2'												1-3-19		9:40 AM			
4		SP1 @ 3'												1-3-19		9:58 AM			
5		SP2 @ SURFACE												1-3-19		10:15 AM			
6		SP2 @ 1'												1-3-19		10:22 AM			
7		SP2 @ 2'												1-3-19		10:39 AM			
8		SP2 @ 3'												1-3-19		11:11 AM			
9		SP3 @ SURFACE												1-3-19		11:15 AM			
10		SP3 @ 1'												1-3-19		11:19 AM			

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Relinquished By:		Date: 1/3/19		Received By:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: 11:00		Jodi Benson		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date: 11/3/18		Received By:		REMARKS:			
		Time:							
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other: 5.82 / #97				Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		(Initials)			

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



## ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

**(505) 393-2326 FAX (505) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.						<b>BILL TO</b>								<b>ANALYSIS REQUEST</b>												
Project Manager: Cliff Brunson						P.O. #:																				
Address: P.O. Box 805						Company:																				
City: Hobbs			State: NM Zip: 88241			Attn:																				
Phone #: 575-397-6388			Fax #: 575-397-0397			Address:																				
Project #:			Project Owner: Oxy			City:																				
Project Name: Goodnight 26-1						State:      Zip:																				
Project Location:						Phone #:																				
Sampler Name: Jeff Ornelas						Fax #:																				
FOR LAB USE ONLY				MATRIX					PRESERV.	SAMPLING																
Lab I.D.	Sample I.D.	(GRAB OR C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME												
H9DEO33																										
11	SP3 @ 2'												1-3-19	11:30 AM	/	/	/									
12	SP3 @ 3'												1-3-19	11:55 AM	/	/	/									
13	SP3 @ 4'												1-3-19	12:44 PM	/	/	/									
14	SP3 @ 5'												1-3-19	1:01 PM	/	/	/									
15	SP3 @ 6'												1-3-19	1:15 PM	/	/	/									
16	SP3 @ 7'												1-3-19	1:25 PM	/	/	/									
17	NORTH @ SURFACE												1-3-19	1:30 PM	/	/	/									
18	EAST @ SURFACE												1-3-19	1:38 PM	/	/	/									
19	WEST @ SURFACE												1-3-19	1:45 PM	/	/	/									
20	SOUTH @ SURFACE												1-3-19	1:57 PM	/	/	/									

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Relinquished By: 		Date: 1/24	Received By: Jodi Benson		Phone Result:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
		Time: 11:30			Fax Result:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
REMARKS:							

Relinquished By:	Date: 11/30	Received By:
	Time:	

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other: 5.8oz / #97	Cool Intact Yes [x] No [ ] No [ ] Yes [ ]	[Signature] (Initials)

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