

PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805 E-MAIL: cbrunson@bbcinternational.com

# **DELINEATION WORKPLAN**

# OXY - GOVERNMENT AB FEDERAL #11

(Leak Date: 10/23/18)

#### RP # 2RP-5059

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5059.

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 entire leak area (YELLOW shade on diagram) will be excavated to a depth of 3 feet.

Bottom confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 225 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.

Form C-141 Page 3

# State of New Mexico Oil Conservation Division

Incident ID		
District RP	2RP-5059	
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?	60 (ft bgs)						
Did this release impact groundwater or surface water?	☐ Yes ■ No						
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ■ No						
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ■ No						
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ■ No						
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ■ No						
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ■ No						
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ■ No						
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ■ No						
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ■ No						
Are the lateral extents of the release overlying an unstable area such as karst geology?	■ Yes □ No						
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ■ No						
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ■ No						
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and 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.							
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> </ul>							
■ Determination of water sources and significant watercourses within ½-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.

Form C-141 Page 4

# State of New Mexico Oil Conservation Division

Incident ID		_
District RP	2RP-5059	
Facility ID		10-
Application ID		

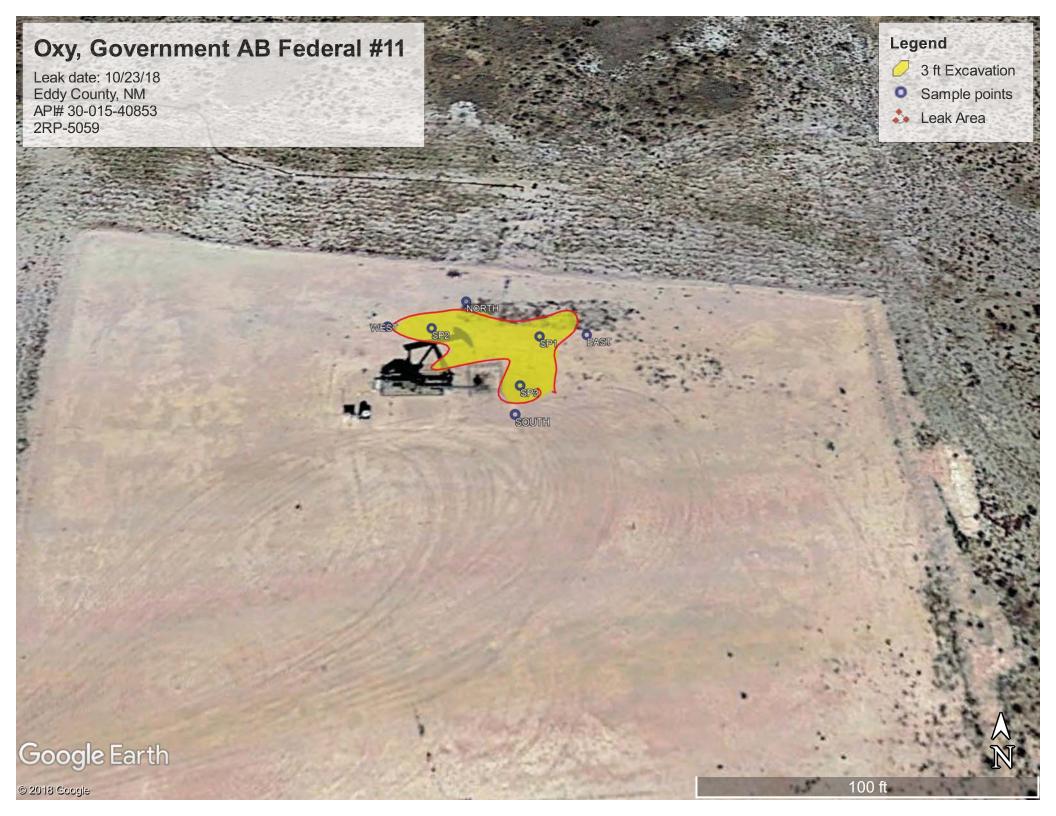
Form C-141 Page 5

# State of New Mexico Oil Conservation Division

Incident ID	
District RP	2RP-5059
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.
<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>
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  Date:  1 1 2 1 3 390-2828  Telephone:  1 2 575) 390-2828
OCD Only
Received by: Date:
Approved
Signature: Date:



# Oxy, Government AB Federal 11

# Sample points

SP1, N 32.58967 W-104.16810

SP2, N 32.58968 W-104.16824

SP3, N 32.58960 W-104.16813

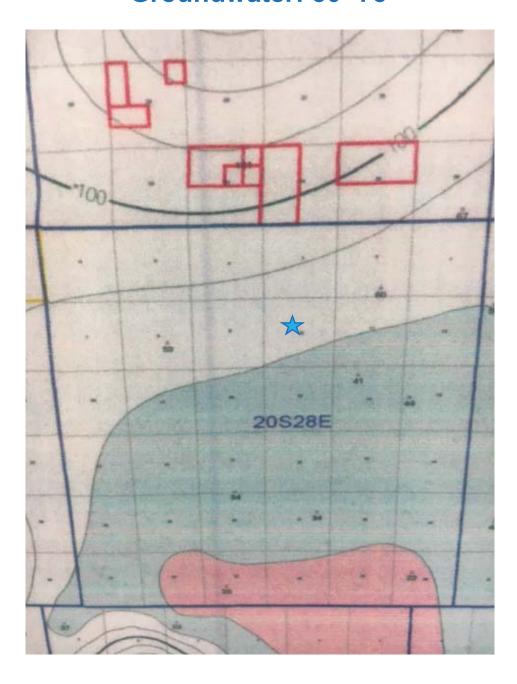
NORTH, N 32.58972 W-104.16820

SOUTH, N 32.58957 W-104.16813

EAST, N 32.58967 W-104.16805

WEST, N 32.58968 W-104.16829

# Oxy, Government AB Federal 11 U/L F, Section 10, T20S, R28E Groundwater: 50'-75'





**USGS Home Contact USGS** Search USGS

National Water Information System: Web Interface

**USGS Water Resources** 

Data Category: Geog	raphic Area:	
Groundwater V New	Mexico 🗸	GO

#### Click to hideNews Bulletins

- Please see news on new formats
- UPDATE, 11/9: As of November 8, the USGS has successfully restored all of the operational gages that stopped transmitting due to an issue with the satellite telemetry system that records and transmits data. The USGS will now focus on restoring other equipment that experienced the telemetry issues, including about 85 rapid deployment gages that are used periodically for emergency response. Read more
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

#### Search Results -- 1 sites found

Agency code = usgs site\_no list = • 323552104084101

#### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

#### USGS 323552104084101 20S.28E.02.43322

Eddy County, New Mexico Latitude 32°35'52", Longitude 104°08'41" NAD27 Land-surface elevation 3,276 feet above NAVD88

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

#### **Output formats**

Tab-separated data  Graph of data  Perplect period	able of data
	ab-separated data
Perelact paried	iraph of data
Keselect period	eselect period

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 measurema
1968-04-02		D	53.31			2		U		
1971-02-05		D	56.52			2	R	U		
1976-12-10		D	51.25			2		U		
1983-01-10		D	51.38			2		U		
1994-03-16		D	60.42			2		S		
1999-02-24		D	60.83			2		S	USGS	3

#### 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
Status	R	Site had been pumped recently.
Method of measurement	S	Steel-tape measurement.



Questions about sites/data? Feedback on this web site **Automated retrievals** <u>Help</u> **Data Tips** Explanation of terms Subscribe for system changes

Accessibility Plug-Ins FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for New Mexico: Water Levels

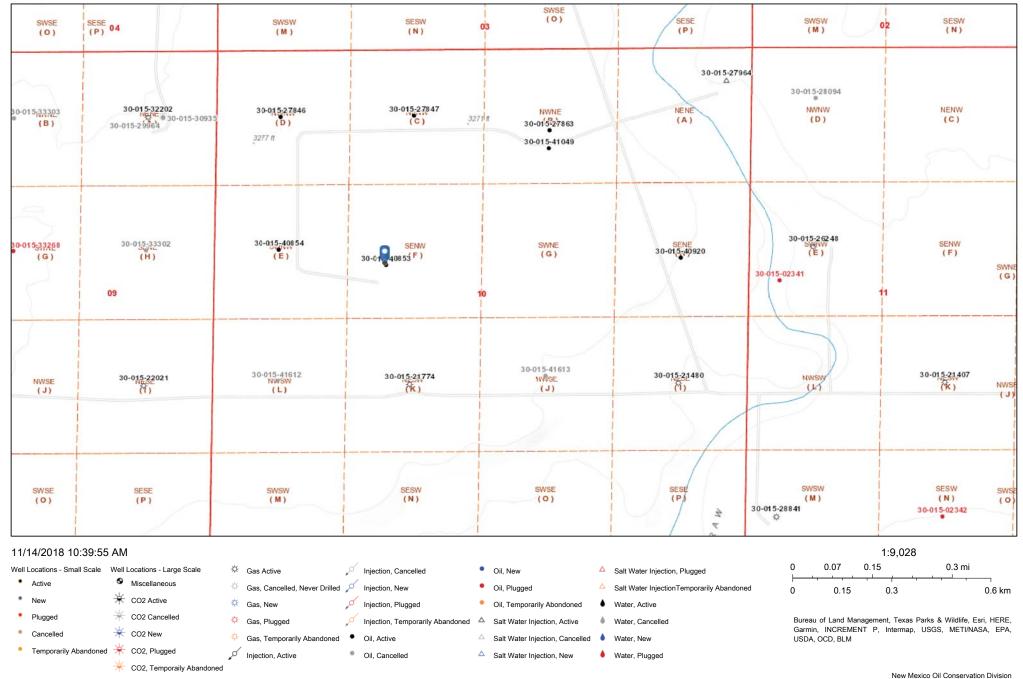
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: <u>New Mexico Water Data Maintainer</u> Page Last Modified: 2018-11-14 12:36:38 EST

13.27 0.52 nadww01



# Government AB Federal 11, Topo map w/ water features



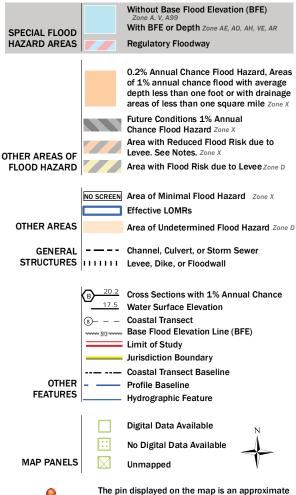
# Oxy, Government AB Federal #11 **BLM CAVE KARST MAP** Legend Government AB Federal #11 Leak date: 10/23/18 Eddy County, NM High potential AP# 30-015-40853 Low potential 2RP-5059 Medium potential ■Government AB Federal #11 (1) 62) Google Earth 3 mi © 2018 Google

# National Flood Hazard Layer FIRMette



#### Legend

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



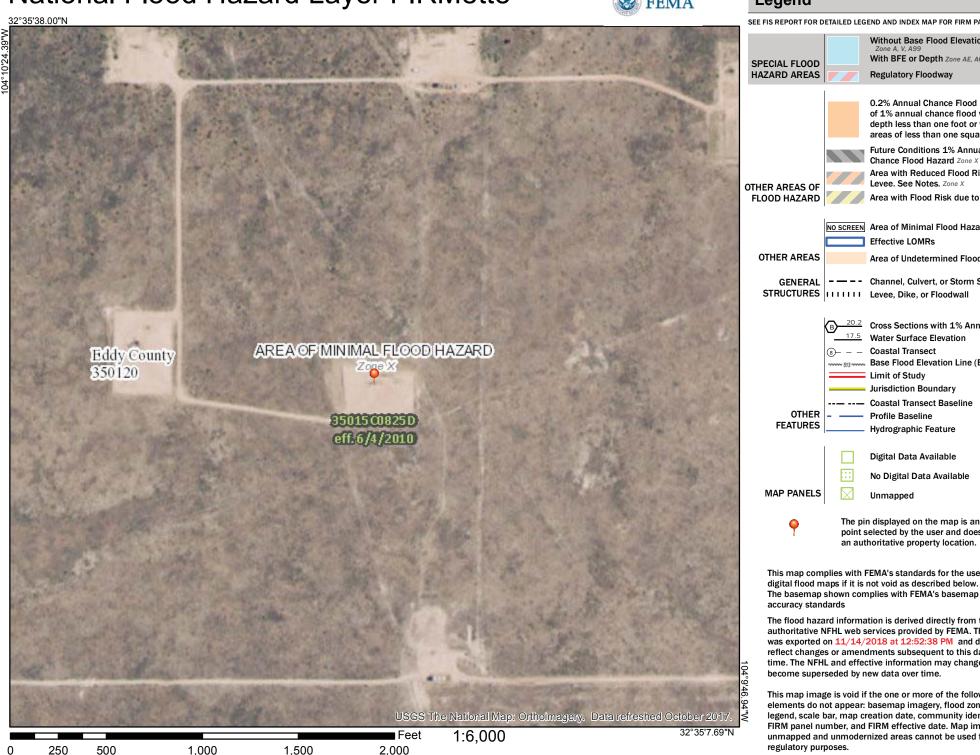
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below.

point selected by the user and does not represent

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/14/2018 at 12:52:38 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 Government AB Federal 11

			SP1 @			
		Sample ID	SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.200	<0.050	<0.050	< 0.050
Toluene	BTEX 8021B		0.539	< 0.050	<0.050	< 0.050
Ethylbenzene	BTEX 8021B		1.07	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		5.93	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		7.54	<0.300	<0.300	< 0.300
Chloride	SM4500CI-B		32	1340	608	128
GRO	TPH 8015M		439	<10.0	<10.0	<10.0
DRO	TPH 8015M		17100	22.4	<10.0	<10.0
EXT DRO	TPH 8015M		2320	19.4	<10.0	<10.0

			SP2 @			
		Sample ID	SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.200	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		3.36	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		3.78	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		20.7	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		27.9	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		96	1250	736	112
GRO	TPH 8015M		612	<10.0	<10.0	<10.0
DRO	TPH 8015M		16000	17	<10.0	<10.0
EXT DRO	TPH 8015M		2610	14.2	<10.0	<10.0

		0 ID	SP3 @	000 O 41	000 0 0	900 O 01
		Sample ID	SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.100	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.327	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		0.701	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		3.59	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		4.62	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		32	1120	752	128
GRO	TPH 8015M		287	<10.0	<10.0	<10.0
DRO	TPH 8015M		13100	13.8	<10.0	<10.0
EXT DRO	TPH 8015M		1910	10	<10.0	<10.0

			NORTH @	EAST @	WEST @	SOUTH @
		Sample ID	SURFACE	SURFACE	SURFACE	SURFACE
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			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	<16.0	<16.0
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



November 13, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: GOVERNMENT AB FEDERAL #11

Enclosed are the results of analyses for samples received by the laboratory on 11/07/18 15:40.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

Celeg D. Keens

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SP 1 @ SURFACE (H803219-01)

BTEX 8021B	mg/kg		Analyze	Analyzed By: ms		l <b>S</b>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	0.539	0.200	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	1.07	0.200	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	5.93	0.600	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	7.54	1.20	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	120 9	% 69.8-14	12						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	439	50.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	17100	50.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	2320	50.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	192 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	856	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 1 @ 1' (H803219-02)

BTEX 8021B	mg,	/kg	Analyze	ed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1340	16.0	11/12/2018	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	22.4	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	19.4	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	96.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	94.3	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SP 1 @ 2' (H803219-03)

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	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	69.8-14	2						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	98.0	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	94.4	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 1 @ 3' (H803219-04)

BTEX 8021B	mg/kg		Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 69.8-14	2						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	92.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	86.0	% 37.6-14	7						

\*=Accredited Analyte Cardinal Laboratories

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Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SP 2 @ SURFACE (H803219-05)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	3.36	0.200	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	3.78	0.200	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	20.7	0.600	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	27.9	1.20	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	126	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	612	50.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*		F0 0	11/10/2018	ND	206	103	200	2.22	
DRO > C10 - C20	16000	50.0	11/10/2010	ND	200	105	200	2.22	
EXT DRO >C28-C36	16000 2610	50.0	11/10/2018	ND	200	103	200	2.22	

Surrogate: 1-Chlorooctane 163 % 41-142
Surrogate: 1-Chlorooctadecane 407 % 37.6-147

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 2 @ 1' (H803219-06)

Analyte	Result	Reporting Limit							
			Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.8-14	2						
Chloride, SM4500CI-B	mg/	/kg	Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1250	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	17.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	14.2	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	95.3	% 41-142	!						
Surrogate: 1-Chlorooctadecane	82.9	% 37.6-14	7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 2 @ 2' (H803219-07)

BTEX 8021B	mg/	'kg	Analyze	ed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 69.8-14	12						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	88.5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	78.8	% 37.6-14	!7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 2 @ 3' (H803219-08)

BTEX 8021B	mg/	/kg	Analyze	ed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/12/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/12/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 69.8-14	22						
Chloride, SM4500CI-B	mg/	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	99.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	88.1	% 37.6-14	7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SP 3 @ SURFACE (H803219-09)

BTEX 8021B	mg/kg		Analyzed By: ms		3				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS % Recovery	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	0.327	0.100	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	0.701	0.100	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	3.59	0.300	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	4.62	0.600	11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	128 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	287	50.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	13100	50.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	1910	50.0	11/10/2018	ND					
Surrogate: 1-Chloroctane	171	26 A1-143	)						

Surrogate: 1-Chlorooctane 171 % 41-142
Surrogate: 1-Chlorooctadecane 671 % 37.6-147

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 3 @ 1' (H803219-10)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	13.8	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	10.0	10.0	11/10/2018	ND					
Surrogate: 1-Chlorooctane	96.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	85.6	% 37.6-14	7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

EDDY COUNTY, NM Project Location:

#### Sample ID: SP 3 @ 2' (H803219-11)

BTEX 8021B	mg,	/kg	Analyze	ed By: ms					
Analyte	Result Reporting Limi		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	< 0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	< 0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300 0.300		11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 69.8-14	2						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result Reporting Lin		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	>C28-C36 <10.0 10.0		11/11/2018	ND					
Surrogate: 1-Chlorooctane 82.5 %		% 41-142	?						
Surrogate: 1-Chlorooctadecane	86.0	% 37.6-14	7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SP 3 @ 3' (H803219-12)

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	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050 0.050		11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300	0.300	11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	11/11/2018	ND					
Surrogate: 1-Chlorooctane	e: 1-Chlorooctane 81.0 % 41-14		ı						
Surrogate: 1-Chlorooctadecane	86.9	% 37.6-14	7						

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Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: NORTH @ SURFACE (H803219-13)

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	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300 0.300		11/13/2018 ND						
Surrogate: 4-Bromofluorobenzene (PID	rrogate: 4-Bromofluorobenzene (PID 109 %		2						
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	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	8-C36 <10.0 10.0		11/11/2018	ND					
Surrogate: 1-Chlorooctane	81.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	84.5	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact
Project Number: 10/23/18 Sample Received By: Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: EAST @ SURFACE (H803219-14)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300 0.300		11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	rrogate: 4-Bromofluorobenzene (PID 107 %		2						
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	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	<10.0 10.0		11/11/2018	ND					
Surrogate: 1-Chlorooctane	81.0	% 41-142	?						
Surrogate: 1-Chlorooctadecane	82.6	% 37.6-14	7						

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BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: **GOVERNMENT AB FEDERAL #11** Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: WEST @ SURFACE (H803219-15)

BTEX 8021B	mg/	/kg	Analyze	ed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050 0.050		11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300 0.300		11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	ogate: 4-Bromofluorobenzene (PID 105 % 69.8:		12						
Chloride, SM4500CI-B	mg/	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	C28-C36 <10.0 10.0		11/11/2018	ND					
Surrogate: 1-Chlorooctane	76.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	77.9	% 37.6-14	!7						

Surrogate: 1-Chlorooctadecane 77.9 %

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BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 11/07/2018 Sampling Date: 11/02/2018

Reported: 11/13/2018 Sampling Type: Soil

Project Name: GOVERNMENT AB FEDERAL #11 Sampling Condition: Cool & Intact Sample Received By: Project Number: 10/23/18 Tamara Oldaker

Project Location: EDDY COUNTY, NM

#### Sample ID: SOUTH @ SURFACE (H803219-16)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/13/2018	ND	2.27	114	2.00	2.41	
Toluene*	<0.050	0.050	11/13/2018	ND	2.21	111	2.00	2.04	
Ethylbenzene*	<0.050	0.050	11/13/2018	ND	2.14	107	2.00	1.50	
Total Xylenes*	<0.150	0.150	11/13/2018	ND	6.71	112	6.00	1.34	
Total BTEX	<0.300 0.300		11/13/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	rogate: 4-Bromofluorobenzene (PID 106 % 6		2						
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	11/12/2018	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	189	94.6	200	5.48	
DRO >C10-C28*	<10.0	10.0	11/11/2018	ND	205	103	200	1.53	
EXT DRO >C28-C36	8-C36 <10.0 10.0		11/11/2018	ND					
Surrogate: 1-Chlorooctane	83.6	% 41-142	?						
Surrogate: 1-Chlorooctadecane	85.3	% 37.6-14	7						

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#### **Notes and Definitions**

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or

matrix interference's.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

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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# Page 19 of 20

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476 Company Name: BBC International Inc.

BBC International, Inc.					100	BILL TO								ANALYSIS REQUEST													
Project Manager: Cliff Brunson					P	P.O. #:						Т	Т	Т	T	111/	T	7	KL	QUL	<u> </u>			$\overline{}$			
Address: P.C	). Box 805							c	omp	oan	v:	OKU		1						1		_		1			
City: Hobbs	State: NM	Zi	p:	88	241				ttn:		1	Atter	1	1			-								1		
Phone #: 575	007 0000	5-39						I <sub>A</sub>	ddre	ess:	•	2112116		1			- [			1		- 1		1	1	1	1
Project #:	Project Owner	er: C	ху						City:													- 1		1		1	
Project Name:	Goverment AB Federal 11 (10/23								State: Zip:					1										1		1	
Project Location	n: Eddy County, NM							-	Phone #:					1				- 1								1	1
Sampler Name: Roger Hernandez						_						1										1	-	1			
FOR LAB USE ONLY MATRIX					11.	Fax #: PRESERV. SAMP				ING	1						1				l	7	1				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	N N	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	876X	10	101111	一种工										
1	SP1 @ SURFACE	6	1			V			T	V		11/2/18	9:02 AM	1	1	١,	7	$\dashv$		_	+	$\dashv$		$\vdash$	$\vdash$	$\vdash$	+
9	SP1 @ 1'		1			1			Г	1		11/2/18	9:13 AM	1	1	١,	1	$\neg$			+	$\exists$			$\vdash$	$\vdash$	
3	SP1 @ 2'											11/2/18	9:25 AM	1	1	1	/	$\neg$			+	$\forall$			$\vdash$		1
	SP1 @ 3'		Ш	L								11/2/18	9:38 AM	1	1		/	$\exists$			+	$\top$					+
	SP2 @ SURFACE	Ш	Ш									11/2/18	10:00 AM	1	1		/				+	$\forall$					
		Ш	Ш	L								11/2/18	10:18 AM	1	1	1	/	$\neg$			+	$\top$					
	SP2 @ 2'	Ш	11	L								11/2/18	10:32 AM	1	1	1					+	$\top$					$\vdash$
-	SP2 @ 3'	П	1									11/2/18	10:48 AM	1	1			$\neg$			+	+					+
	SP3 @ SURFACE	П	Ц									11/2/18	11:10 AM	1	1	١,	1	$\forall$			+	$\top$					+
	SP3 @ 1'	V	V	L		$\Psi$						11/2/18	11:32 AM	1	1							$\perp$					+
service. In no event shall Ca affiliates or successors arisin	nd Damages. Cardinal's liability and client's exclusive remedy for a rig those for negligence and any other cause whatsoever shall be ardinal be liable for incidental or consequental damages, including rig out of or related to the performance of services herejander by C	deeme withou	d waiv ut limit	ed un ation.	less ma businer	ide in v	writing a	nd rece	ived by	or lose	of no	office increment has a	d by the client for ir completion of th client, its subsidiar	the ne applicab ries,	ie												
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

RDINAL LABORATORIES

Company Name: BBC International, Inc.

101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

Company Name: BBC International, Inc.						BILL TO							ANALYSIS REQUEST													
Project Manager: Cliff Brunson						P.O. #:					Т	Т	Т	Т	T	T			T	Ť	T	Т	Т			
Address: P.O.	Box 805							Со	mpa	any	:,	OXU		1												1
City: Hobbs	State: NM	Zip	):	882	41			Att	tn:		1	Africo	_	1									1			
Phone #: 575-	397-6388 Fax #: 575	-39	7-0	39	7			Ad	dre	ss:				1	1							1				
Project #:	Project Owne	r: 0	ху					City:					1								1	1		1		
	Goverment AB Federal 11 (10/23/	18)						State: Zip:					1				-1				1	1		1		
Project Location	n: Eddy County, NM							Phone #:					1									1		1		
Sampler Name:	Roger Hernandez							Fax	x #:					1											1	
FOR LAB USE ONLY					ATR	IX					SAMPLING		1													
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	87EX	CI	TOLONT	18061									
	SP3 @ 2'	6	1			1				$\checkmark$	4	11/2/18	11:50 AM	1	1	1										
	SP3 @ 3'	Ш	1							1	_	11/2/18	12:40 PM	1	1	1										
	NORTH @ SURFACE EAST @ SURFACE	Ш	Н	L		-	-	4		$\perp$	_	11/2/18	1:00 PM	1	1	1	1									
	WEST @ SURFACE	Н	H	Н		+	$\vdash$	-	$\vdash$	$\mathbb{H}$	4	11/2/18	1:20 PM	1	<b>√</b>	1	1		1				_			
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	11/5/18																									
PLEASE NOTE: Liability and analyses. All claims including	Damages. Cardinal's liability and client's exclusive remedy for a ghose for negligence and any other cause whatsoever shall be original by liability for incidental and any other cause whatsoever shall be original by liability for incidental and any other cause.	ny clain	n arisir	ng whe	ther bas	ed in o	ontract o	or fort,	shall t	e lim	ited to	the amount pa	d by the client for	the	_				_							
Service: In 110 event andii Ca	rdinal be liable for incidental or consequental damages, including g out of or related to the performance of services hereunder by C	without	limita	tion, b	usiness i	interrup	otions, lo	iss of	use, or	loss	of pro	fits incurred by	er completion of the client, its subsidiar	ne applicat ries,	ble											
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476