



DELINEATION WORKPLAN

OXY – CALMON 2 CTB (Leak Date: 12/26/18)

RP # 2RP-5215

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5215.

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 6 inches.

Bottom confirmation samples will be collected at no greater than 50 ft. intervals. Estimated volume of material to be removed is 58 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.

Incident ID	
District RP	2RP-5215
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?	<u>102</u> (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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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.

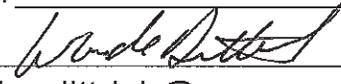
Characterization Report Checklist: <i>Each of the following items must be included in the report.</i>
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input type="checkbox"/> Boring or excavation logs <input type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input checked="" type="checkbox"/> 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-5215
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: 2-19-79
 email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP-5215
Facility ID	
Application ID	

Remediation Plan

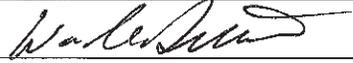
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- 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: 2-19-19
 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, Calmon 2 CTB

Leak date: 12/26/18
Eddy County, NM
2RP-5215

Legend

-  6 inch Excavation across entire leak area
-  Sample points
-  Leak Area



Oxy, Calmon 2 CTB

Sample points

SP1, N 32.26228 W-103.75083

SP2, N 32.26245 W-103.75082

SP3, N 32.26236 W-103.75078

NORTH, N 32.26252 W-103.75083

SOUTH, N 32.26222 W-103.75082

EAST, N 32.26235 W-103.75070

WEST, N 32.26243 W-103.75089



National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category: Groundwater Geographic Area: New Mexico

Click to hide News Bulletins

- [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 =

- 321609103445901

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 321609103445901 23S.31E.26.34411

Eddy County, New Mexico
Latitude 32°16'11.9", Longitude 103°45'01.2" NAD83
Land-surface elevation 3,451.00 feet above NGVD29
The depth of the well is 365 feet below land surface.
This well is completed in the Dewey Lake Redbeds (312DYLK) local aquifer.

Output formats

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

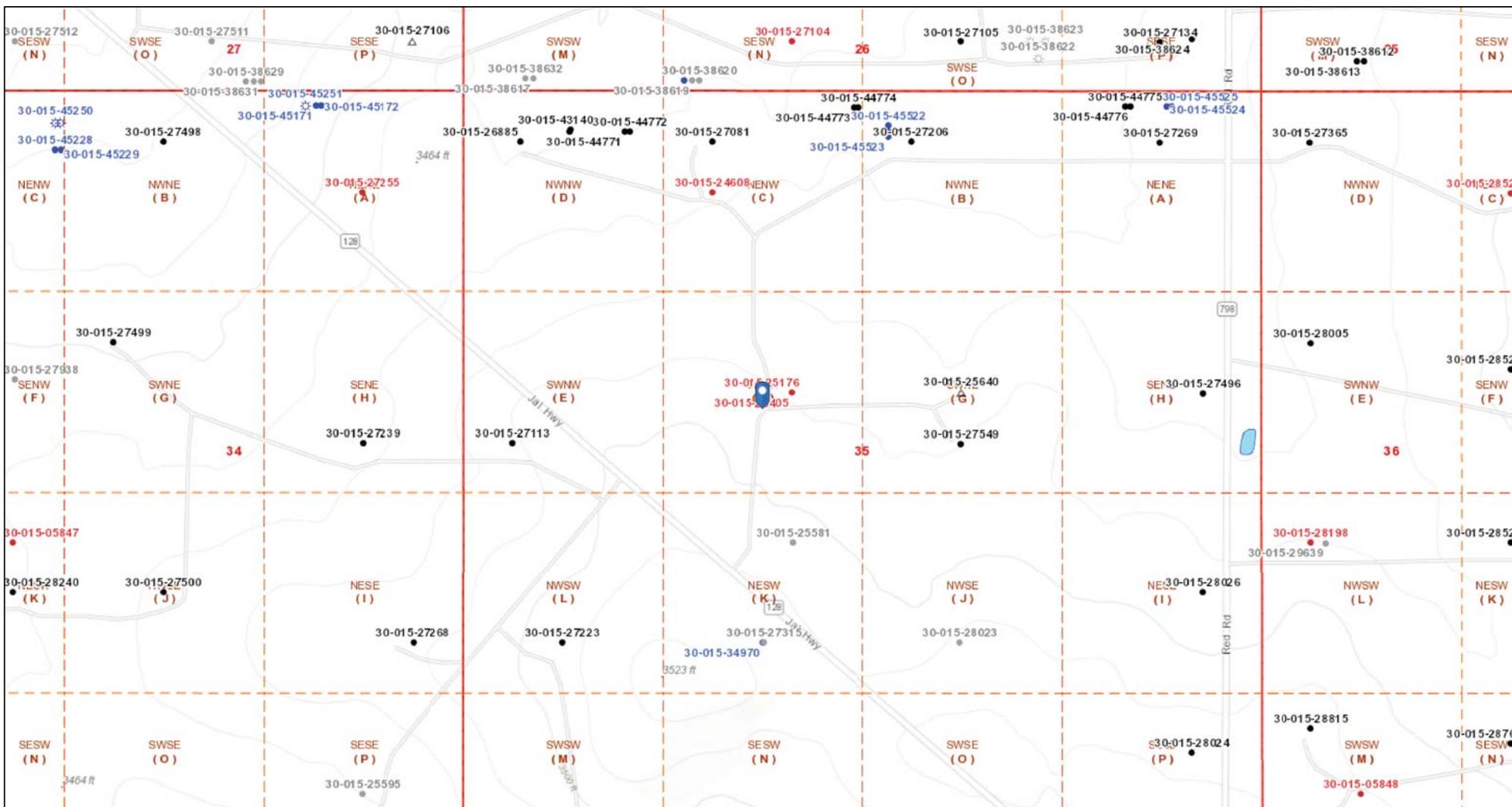
Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status	
1959-02-04		D	256.87				2	P	U		U	A
1972-09-20		D	250.47				2		U		U	A
1988-03-17		D	249.02				2		S		U	A
2013-01-16	17:00 MST	m	101.55				2	P	S	USGS	S	P
2013-02-14	08:00 MST	m						P	S	USGS	R	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy		Not determined
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.
Water-level approval status	P	Provisional data subject to revision.

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
- [Explanation of terms](#)

Calmon 2 CTB, 12/26/18, 3153.6ft



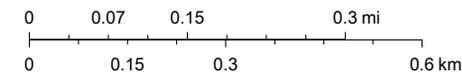
2/6/2019, 4:11:09 PM

1:9,028

Well Locations - Small Scale

Well Locations - Large Scale

- | | | | | | |
|-------------------------|------------------------------|---------------------------------|------------------------------------|-----------------------------------|--|
| ● Active | ● Miscellaneous | ☆ Gas Active | ⊖ Injection, Cancelled | ● Oil, New | △ Salt Water Injection, Plugged |
| ● New | ☆ CO2 Active | ☆ Gas, Cancelled, Never Drilled | ⊕ Injection, New | ● Oil, Plugged | △ Salt Water Injection Temporarily Abandoned |
| ● Plugged | ☆ CO2 Cancelled | ☆ Gas, New | ⊖ Injection, Plugged | ● Oil, Temporarily Abandoned | ● Water, Active |
| ● Cancelled | ☆ CO2 New | ☆ Gas, Plugged | ⊖ Injection, Temporarily Abandoned | △ Salt Water Injection, Active | ● Water, Cancelled |
| ● Temporarily Abandoned | ☆ CO2 Plugged | ☆ Gas, Temporarily Abandoned | ● Oil, Active | △ Salt Water Injection, Cancelled | ● Water, New |
| | ☆ CO2, Temporarily Abandoned | ⊕ Injection, Active | ● Oil, Cancelled | △ Salt Water Injection, New | ● Water, Plugged |



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

Oxy, Calmon 2 CTB

Leak date: 12/26/18
Eddy County, NM
2RP-5215

BLM CAVE KARST MAP

Legend

-  Leak Area
-  Low potential



128

Jal Hwy

Google Earth

© 2018 Google



600 ft

National Flood Hazard Layer FIRMette



32°15'59.93"N



Legend

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

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | 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 <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | 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 |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | 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 **2/6/2019 at 7:00:59 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.

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

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

32°15'29.50"N

103°44'42.50"W

103°45'19.95"W

Laboratory Analytical Results Summary
Calmon 2 CTB (12/26/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	2/6/19	2/6/19	2/6/19
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050
Toluene	BTEX 8021B		1.5	<0.050	<0.050
Ethylbenzene	BTEX 8021B		3.85	<0.050	<0.050
Total Xylenes	BTEX 8021B		19.3	<0.150	<0.150
Total BTEX	BTEX 8021B		24.6	<0.300	<0.300
Chloride	SM4500Cl-B		736	304	96
GRO	TPH 8015M		522	<10.0	<10.0
DRO	TPH 8015M		6210	<10.0	<10.0
EXT DRO	TPH 8015M		857	<10.0	<10.0

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	2/6/19	2/6/19	2/6/19	2/6/19	2/6/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.361	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		1.91	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		8.58	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		10.9	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		3000	496	800	2200	96
GRO	TPH 8015M		372	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		5730	<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		323	<10.0	<10.0	<10.0	<10.0

		Sample ID	SP3 @ SURFACE	SP3 @ 1'
Analyte	Method	Date	2/6/19	2/6/19
			mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300
Chloride	SM4500Cl-B		160	80
GRO	TPH 8015M		<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	SOUTH @ SURFACE	WEST @ SURFACE
Analyte	Method	Date	2/6/19	2/6/19	2/6/19	2/6/19
			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		96	112	96	80
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

February 13, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CALMON 2 CTB

Enclosed are the results of analyses for samples received by the laboratory on 02/07/19 15:00.

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.

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:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H900502-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	1.50	0.500	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	3.85	0.500	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	19.3	1.50	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	24.6	3.00	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	736	16.0	02/13/2019	ND	400	100	400	3.92	

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*	522	10.0	02/10/2019	ND	194	97.1	200	8.65		
DRO >C10-C28*	6210	10.0	02/10/2019	ND	222	111	200	5.54		
EXT DRO >C28-C36	857	10.0	02/10/2019	ND						

Surrogate: 1-Chlorooctane 135 % 41-142

Surrogate: 1-Chlorooctadecane 284 % 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: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 1' (H900502-02)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	304	16.0	02/13/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/12/2019	ND	186	93.0	200	0.00	
DRO >C10-C28*	<10.0	10.0	02/12/2019	ND	187	93.5	200	0.695	
EXT DRO >C28-C36	<10.0	10.0	02/12/2019	ND					

Surrogate: 1-Chlorooctane 73.1 % 41-142

Surrogate: 1-Chlorooctadecane 71.7 % 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: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2' (H900502-03)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	96.0	16.0	02/13/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/12/2019	ND	186	93.0	200	0.00	
DRO >C10-C28*	<10.0	10.0	02/12/2019	ND	187	93.5	200	0.695	
EXT DRO >C28-C36	<10.0	10.0	02/12/2019	ND					

Surrogate: 1-Chlorooctane 77.1 % 41-142

Surrogate: 1-Chlorooctadecane 74.3 % 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:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ SURFACE (H900502-04)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	0.361	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	1.91	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	8.58	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	10.9	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 148 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	02/13/2019	ND	416	104	400	3.92	

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*	372	100	02/12/2019	ND	187	93.6	200	2.12	
DRO >C10-C28*	5730	100	02/12/2019	ND	170	84.8	200	2.13	
EXT DRO >C28-C36	323	100	02/12/2019	ND					

Surrogate: 1-Chlorooctane 116 % 41-142

Surrogate: 1-Chlorooctadecane 235 % 37.6-147

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

Received:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H900502-05)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	496	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/12/2019	ND	180	90.2	200	5.40	
DRO >C10-C28*	<10.0	10.0	02/12/2019	ND	192	96.0	200	0.186	
EXT DRO >C28-C36	<10.0	10.0	02/12/2019	ND					

Surrogate: 1-Chlorooctane 85.4 % 41-142

Surrogate: 1-Chlorooctadecane 83.8 % 37.6-147

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

Received:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 2' (H900502-06)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	800	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/12/2019	ND	180	90.2	200	5.40	
DRO >C10-C28*	<10.0	10.0	02/12/2019	ND	192	96.0	200	0.186	
EXT DRO >C28-C36	<10.0	10.0	02/12/2019	ND					

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 86.0 % 37.6-147

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

 Received: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 3' (H900502-07)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 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	2200	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/12/2019	ND	180	90.2	200	5.40	
DRO >C10-C28*	<10.0	10.0	02/12/2019	ND	192	96.0	200	0.186	
EXT DRO >C28-C36	<10.0	10.0	02/12/2019	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 84.9 % 37.6-147

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

 Received: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 4' (H900502-08)

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	02/12/2019	ND	1.92	96.0	2.00	0.0199	
Toluene*	<0.050	0.050	02/12/2019	ND	1.82	90.8	2.00	0.206	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	1.79	89.5	2.00	0.191	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	5.36	89.3	6.00	0.427	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	96.0	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 70.5 % 41-142

Surrogate: 1-Chlorooctadecane 66.9 % 37.6-147

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

Received:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H900502-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/12/2019	ND	2.07	103	2.00	2.47		
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30		
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511		
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88		
Total BTEX	<0.300	0.300	02/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.4 % 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	02/13/2019	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47		
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09		
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND						

Surrogate: 1-Chlorooctane 63.1 % 41-142

Surrogate: 1-Chlorooctadecane 59.4 % 37.6-147

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

 Received: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 1' (H900502-10)

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	02/12/2019	ND	2.07	103	2.00	2.47	
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.9 % 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	80.0	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 76.3 % 41-142

Surrogate: 1-Chlorooctadecane 72.9 % 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:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: NORTH @ SURFACE (H900502-11)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/12/2019	ND	2.07	103	2.00	2.47	
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 89.0 % 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	96.0	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 74.2 % 41-142

Surrogate: 1-Chlorooctadecane 70.6 % 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:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: EAST @ SURFACE (H900502-12)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/12/2019	ND	2.07	103	2.00	2.47	
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 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	112	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 70.0 % 41-142

Surrogate: 1-Chlorooctadecane 64.9 % 37.6-147

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*=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:	02/07/2019	Sampling Date:	02/06/2019
Reported:	02/13/2019	Sampling Type:	Soil
Project Name:	CALMON 2 CTB	Sampling Condition:	Cool & Intact
Project Number:	12-26-18	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOUTH @ SURFACE (H900502-13)

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	02/12/2019	ND	2.07	103	2.00	2.47	
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.4 % 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	96.0	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 66.1 % 41-142

Surrogate: 1-Chlorooctadecane 61.5 % 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: 02/07/2019
 Reported: 02/13/2019
 Project Name: CALMON 2 CTB
 Project Number: 12-26-18
 Project Location: NOT GIVEN

 Sampling Date: 02/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST @ SURFACE (H900502-14)

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	02/12/2019	ND	2.07	103	2.00	2.47	
Toluene*	<0.050	0.050	02/12/2019	ND	2.15	107	2.00	3.30	
Ethylbenzene*	<0.050	0.050	02/12/2019	ND	2.12	106	2.00	0.511	
Total Xylenes*	<0.150	0.150	02/12/2019	ND	6.07	101	6.00	1.88	
Total BTEX	<0.300	0.300	02/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 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	80.0	16.0	02/13/2019	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.47	
DRO >C10-C28*	<10.0	10.0	02/11/2019	ND	197	98.5	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	02/11/2019	ND					

Surrogate: 1-Chlorooctane 68.0 % 41-142

Surrogate: 1-Chlorooctadecane 64.2 % 37.6-147

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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.
- 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.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report



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

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST																			
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEx</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH Extended</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">CI</p> </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: Calmon 2 CTB - 12-26-18				State:		Zip:																					
Project Location:				Phone #:																							
Sampler Name: Price Brunson				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS	MATRIX																	PRESERV.			SAMPLING				
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME														
H900502																											
11	NORTH @ SURFACE										2-6-19	1:40 PM	✓	✓	✓	✓											
12	EAST @ SURFACE										2-6-19	1:50 PM	✓	✓	✓	✓											
13	SOUTH @ SURFACE										2-6-19	2:00 PM	✓	✓	✓	✓											
14	WEST @ SURFACE										2-6-19	2:10 PM	✓	✓	✓	✓											

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Relinquished By:	Date: 2/7/19	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 3:00 PM		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	(Initials)		
	1.5° #97	TO		

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