

# Closure Report

## Site Description

Site Name:	Indian Basin CTB	<b>RECEIVED</b> JUN 20 2013 NMOCD ARTESIA
Company:	Oxy Permian Ltd.	
Legal Description:	U/L K, Section 8, T22S, R24E	
County:	Eddy County, NM	
GPS Coordinates:	N 32.40140° W 104.52237°	

## Release Data

Date of Release:	02/11/2011
Type of Release:	Oil and Produced water
Source of Release:	Freezing temperatures caused a flow line to bust.
Volume of Release:	67 bbls
Volume Recovered:	30 bbls

## Remediation Specifications

Remediation Parameters:	Excavate 2' across entire battery inside berm and place a 1' clay liner in excavation. Backfill with clean soil. Repair berm with compactable caliche & install secondary berms. Natural attenuation will occur for subsurface hydrocarbons after excavation.
Remediation Activities:	05/20/2013 to 06/07/2013

Plan Sent to OCD:	09/16/2011	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	10/11/2011	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	01/23/2013	Email from Cliff Brunson to Terry Gregston
BLM Approval of Plan:	01/24/2013	Email from Terry Gregston to Cliff Brunson

## Supporting Documentation

Initial C-141	Signed 02/15/2011
Final C-141	Signed 06/19/2013
Site Diagram	September 2011
Groundwater Plot	100'
TOPO Maps	May 2013
Lab Summary	06/13/2011-6/14/2011 and 07/14/2011
Lab Analysis	06/13/2011-6/14/2011 and 07/14/2011
Correspondence	Request and approval of remediation plan via email

## Request for Closure

Based on the completion of the remediation plan as agreed upon, BBC International requests closure approval from NMOCD.

Cliff Brunson, President of BBC International Inc.

06/19/2013

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003  
Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

*nkmw 1106146398*

Name of Company OXY USA <i>192463</i>		Contact Kelton Beaird	<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Address 1502 W. Commerce Carlsbad, NM 88220		Telephone No. (O) 575-628-4100		
Facility Name Indian Basin CTB		Facility Type Central Tank Battery Facility		
Surface Owner Federal		Mineral Owner	Lease No. API # 3001531326	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	8	22S	24E					Eddy

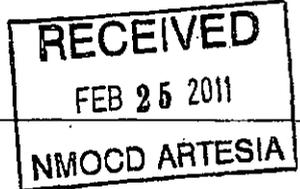
Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Oil and Produced Water	Volume of Release 67 bbls	Volume Recovered 30
Source of Release Flowline	Date and Hour of Occurrence	Date and Hour of Discovery 2-11-11 @ 8:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher- Left Message, Terry Gregston-BLM	
By Whom? Kelton Beaird- Oxy	Date and Hour See above	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
line busted due to freezing temperatures. \*\*API number is for the closest well, which is Old Ranch Knoll 8-5.\*\*



Describe Area Affected and Cleanup Action Taken.\*  
Area affected was on location around the tank batteries Delineation will occur and a clean-up plan will be submitted for approval.

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

Signature: <i>[Handwritten Signature]</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kelton Beaird	Approved by District Supervisor: <i>[Handwritten Signature]</i>	
Title: HES Specialist	Approval Date: <i>3/9/11</i>	Expiration Date:
E-mail Address: kelton_beaird@oxy.com	Conditions of Approval: Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:	Attached <input type="checkbox"/>
Date: 2-15-11	<i>4/9/11</i>	

\* Attach Additional Sheets If Necessary

*2 RP-628*

District I  
1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
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Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company OXY USA	Contact Christopher Jones
Address 1502 W. Commerce Carlsbad, NM 88220	Telephone No. 575-628-4121
Facility Name Indian Basin CTB	Facility Type Central Tank Battery Facility
Surface Owner Federal	Mineral Owner
API No. 30-015-31326	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	8	22S	24E					Eddy

Latitude N 32.40140° Longitude W 104.52237°

**NATURE OF RELEASE**

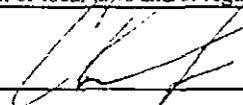
Type of Release Oil and Produced Water	Volume of Release 67 bbls	Volume Recovered 30
Source of Release Flowline	Date and Hour of Occurrence	Date and Hour of Discovery 2-11-11 @ 8:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher- Left Message. Terry Gregston-BLM	
By Whom? Kelton Beard- Oxy	Date and Hour See above	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

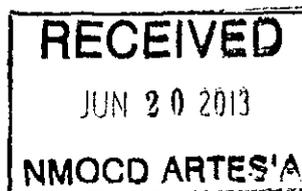
Describe Cause of Problem and Remedial Action Taken.\*  
Line busted due to freezing temperatures. Line was repaired 30 bbls of oil and produced water were recovered via vacuum truck. \*\*API number is for the closest well, which is Old Ranch Knoll 8-5.\*\*

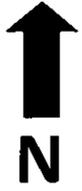
Describe Area Affected and Cleanup Action Taken.\*  
Area affected was on location around the tank batteries Remediation was completed in accordance with a remediation plan approved by Mike Bratcher of NMOCD via email on 10/11/2011 and by Terry Gregston of BLM via email on 01/24/2013.

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

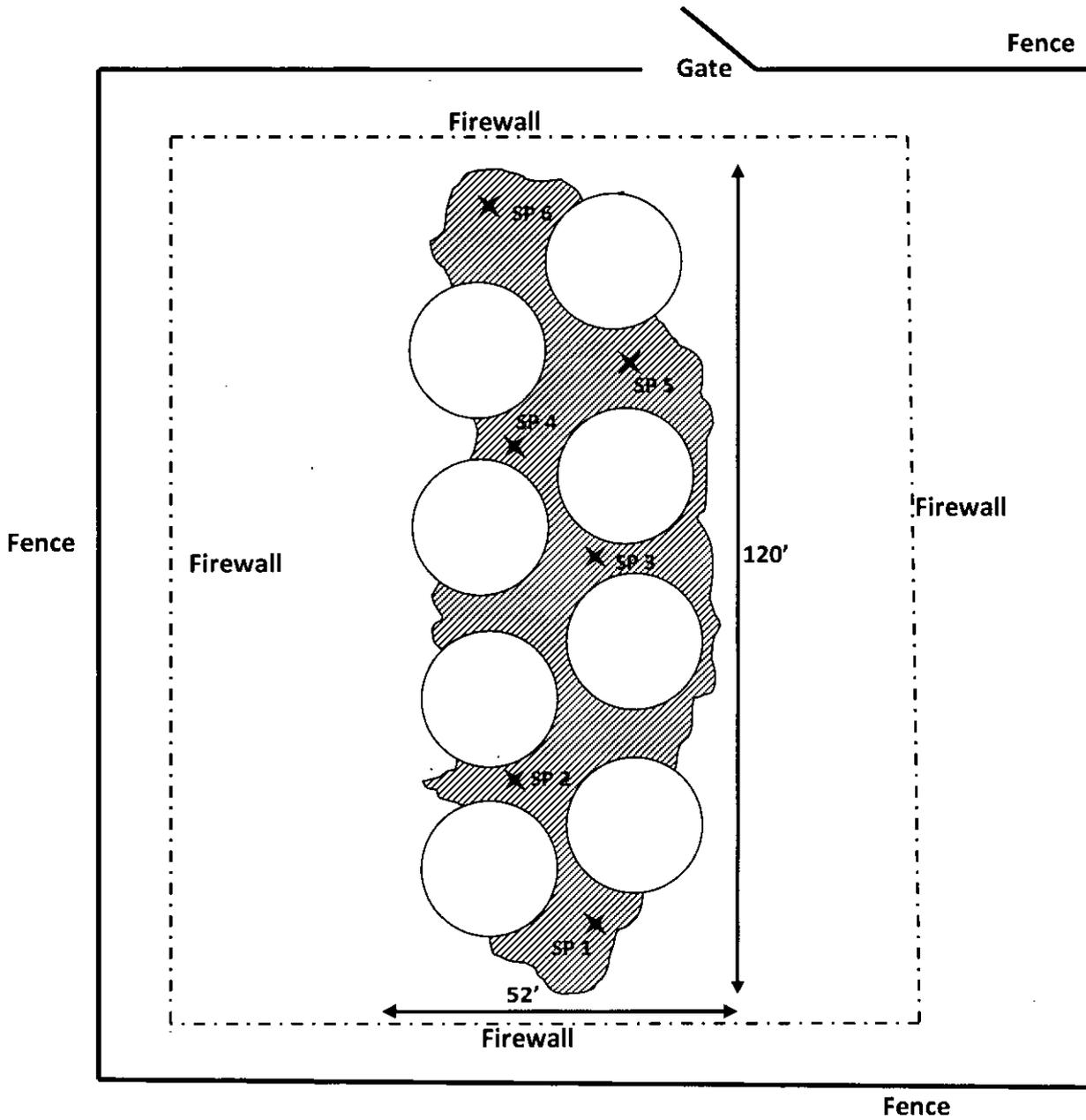
Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Christopher Jones	Approved by District Supervisor:	
Title: HES Specialist	Approval Date:	Expiration Date:
E-mail Address: Christopher.jones@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6-19-13		

\* Attach Additional Sheets If Necessary





Oxy  
Indian Basin Central Tank Battery



UL L, Sec 8, T22S, R24E Eddy  
County, NM  
N 32.40140, W 104.52237  
N 32.40130° W 104.52248° at Stake

<b>BBC International, Inc.</b>	
Oxy Indian Basin Central Tank Battery	
Date: 09/19/11	DRWG by: KAP
Disk:	Sheet 1 of 1
Scale: Not to Scale	File Name:



# Groundwater Plot

## Oxy Indian Basin CTB

County  
Eddy

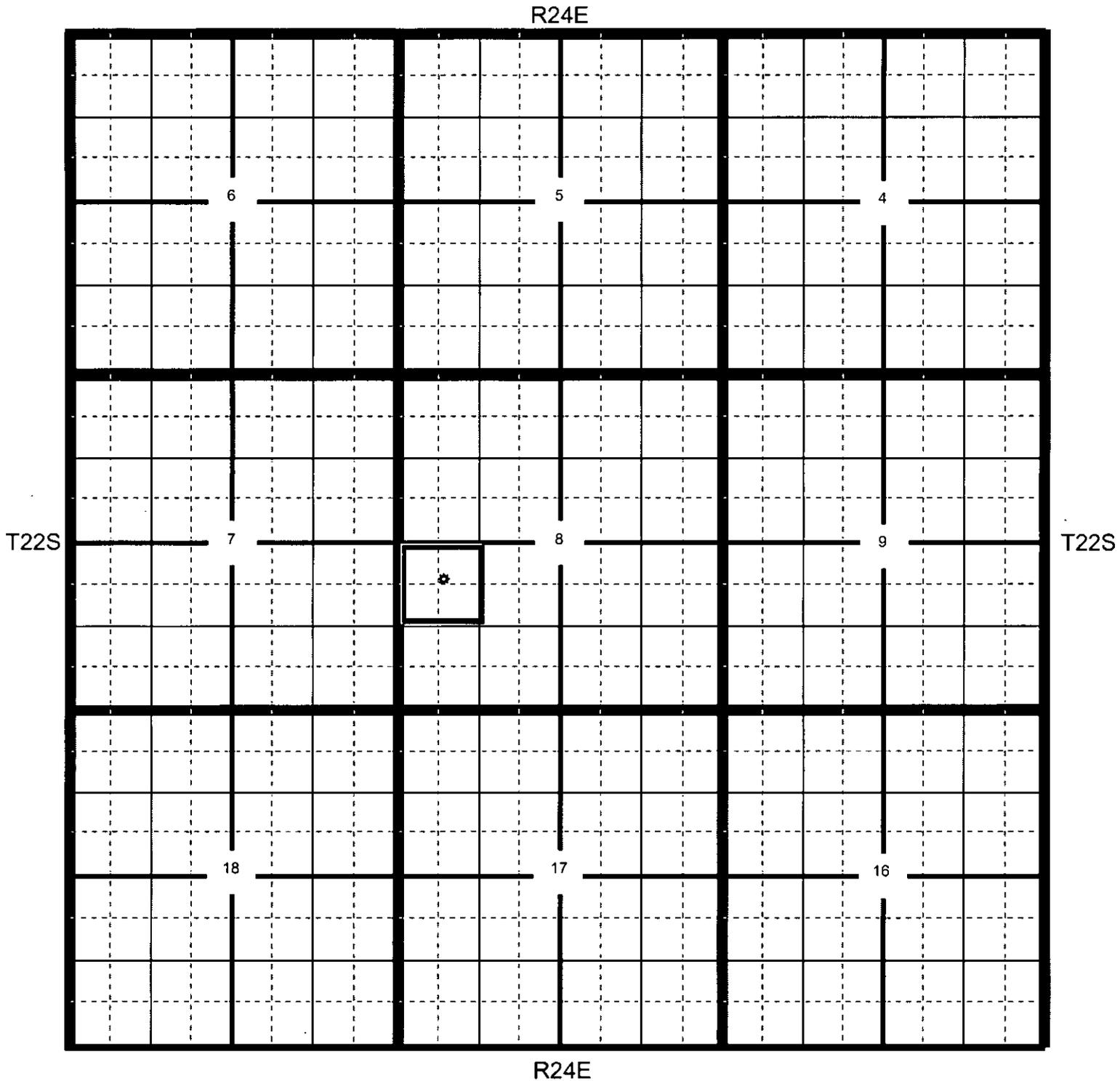
Unit Letter  
L

Section  
8

Township  
22S

Range  
24E

Trend Map 100'



★ Location

● OCD

● USGS

● SEO

● All Databases



Section Quarters

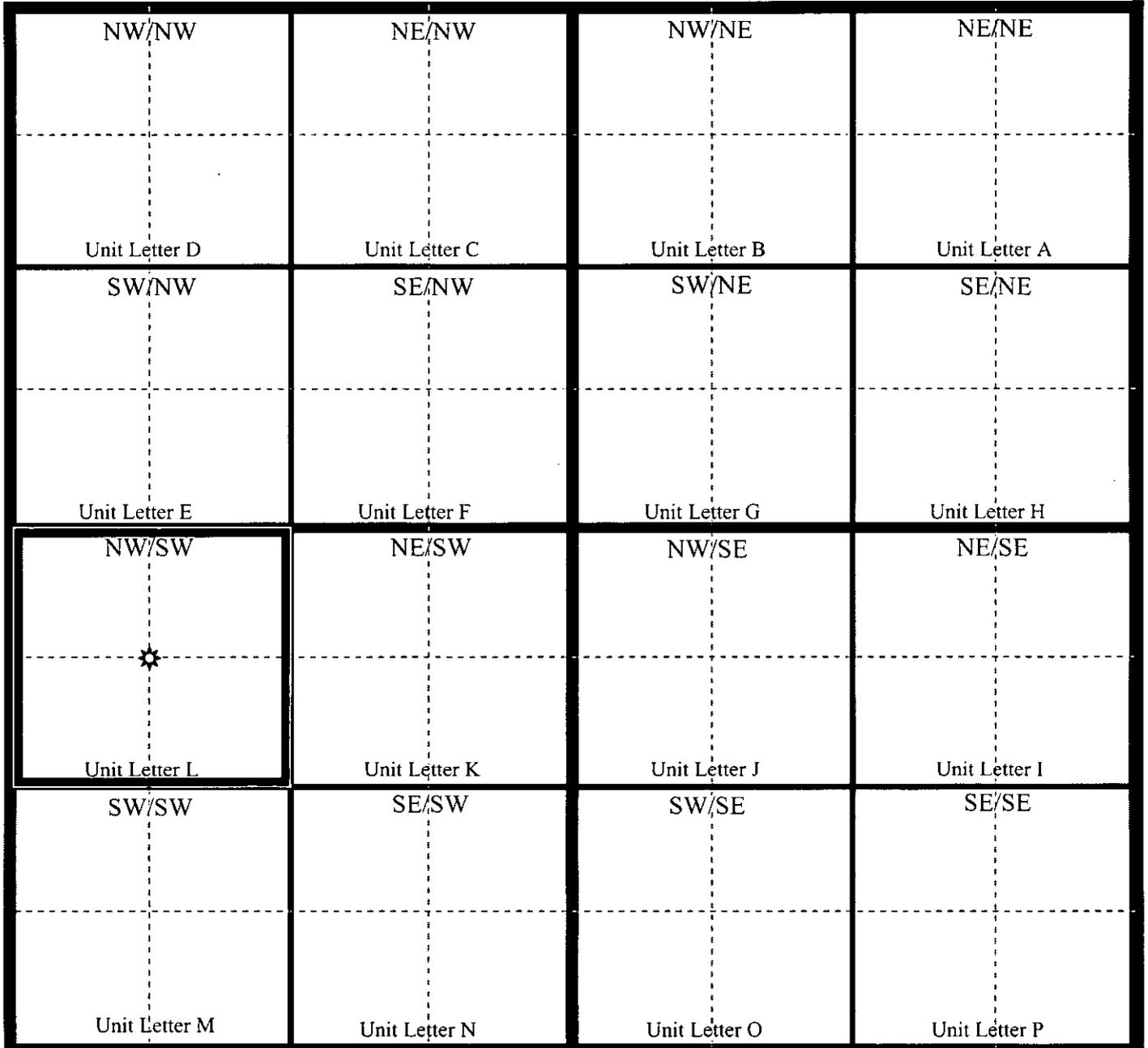
Oxy Indian Basin CTB

<i>County</i> Eddy	<i>Unit Letter</i> L	<i>Section</i> 8	<i>Township</i> 22S	<i>Range</i> 24E
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Trend Map 100'

1

2



3

4

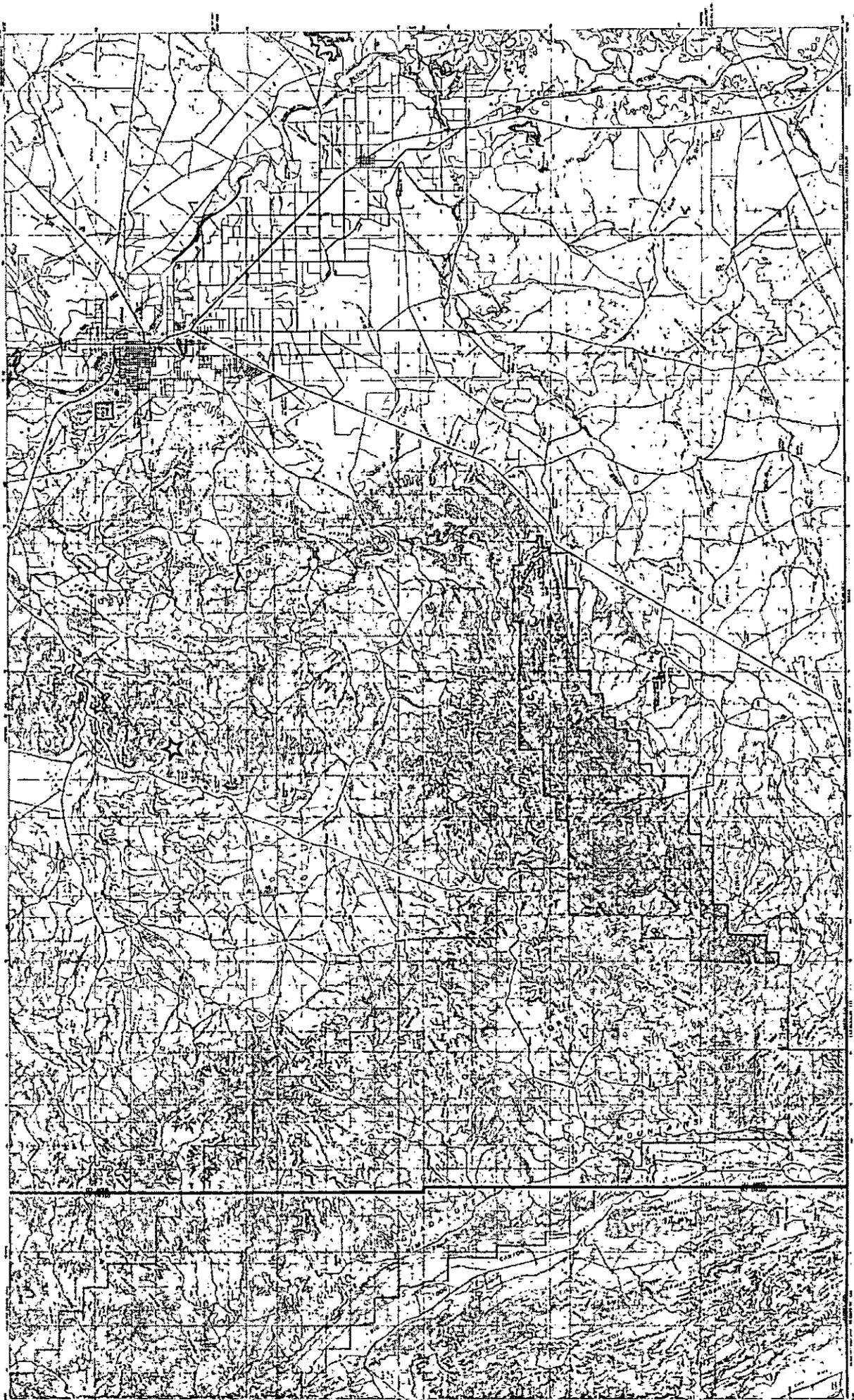
Oxy

# Indian Basin CTB

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



LABORATORY OF GEOGRAPHY  
NEW YORK STATE  
1900-1901 (REVISED)



Scale 1:50,000  
Published by the Geological Survey



Laboratory Analytical Results Summary  
 Oxy, Indian Basin Central Tank Battery

Analyte	Method	Sample Date	SP1 @ 1
Benzene	BTEX8021B	8/13/11	mg/Kg
Toluene	BTEX8021B		<0.050
Ethylbenzene	BTEX8021B		0.228
Total Xylenes	BTEX8021B		0.151
Chloride	SM4500Cl-B		1.03
GRO	TPH8015M		144
DRO	TPH8015M		<50.0
			2830

Analyte	Method	Sample Date	SP2 @ 1
Benzene	BTEX8021B	8/13/11	mg/Kg
Toluene	BTEX8021B		<0.500
Ethylbenzene	BTEX8021B		1.7
Total Xylenes	BTEX8021B		1.02
Chloride	SM4500Cl-B		6.16
GRO	TPH8015M		32
DRO	TPH8015M		213
			1920

Analyte	Method	Sample Date	SP3 @ 1	SP3 @ 2
Benzene	BTEX8021B	8/13/11	mg/Kg	7/14/11
Toluene	BTEX8021B		<0.050	<0.050
Ethylbenzene	BTEX8021B		0.487	0.348
Total Xylenes	BTEX8021B		0.643	0.818
Chloride	SM4500Cl-B		3.49	1.56
GRO	TPH8015M		32	32
DRO	TPH8015M		62.5	132
			5540	1780

Analyte	Method	Sample Date	SP4 @ 1	SP4 @ 2
Benzene	BTEX8021B	8/14/11	mg/Kg	7/14/11
Toluene	BTEX8021B		<0.050	<0.050
Ethylbenzene	BTEX8021B		3.99	0.275
Total Xylenes	BTEX8021B		0.901	0.802
Chloride	SM4500Cl-B		5.91	1.33
GRO	TPH8015M		32	48
DRO	TPH8015M		72	73.1
			5300	807

Analyte	Method	Sample Date	SP5 @ 1	SP5 @ 2	SP5 @ 4	SP5 @ 5
Benzene	BTEX8021B	8/14/11	mg/Kg	7/14/11	7/14/11	7/14/11
Toluene	BTEX8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX8021B		0.62	0.593	0.222	0.112
Total Xylenes	BTEX8021B		1.71	1.75	0.89	0.722
Chloride	SM4500Cl-B		6.9	4.34	2.94	2.45
GRO	TPH8015M		<16.0	16	<16.0	16
DRO	TPH8015M		442	660	242	202
			21100	4910	2280	1920

Analyte	Method	Sample Date	SP6 @ Surface	SP6 @ 2
Benzene	BTEX8021B	8/14/11	mg/Kg	7/14/11
Toluene	BTEX8021B		<0.050	<0.050
Ethylbenzene	BTEX8021B		0.088	0.925
Total Xylenes	BTEX8021B		0.062	1.87
Chloride	SM4500Cl-B		0.37	2.4
GRO	TPH8015M		<16.0	<16.0
DRO	TPH8015M		<50.0	723
			6310	2460

June 21, 2011

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: INDIAN BASIN CTB

Enclosed are the results of analyses for samples received by the laboratory on 06/15/11 17:00.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

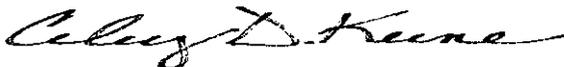
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (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: (505) 397-0397

 Received: 06/15/2011  
 Reported: 06/21/2011  
 Project Name: INDIAN BASIN CTB  
 Project Number: NONE GIVEN  
 Project Location: CARLSBAD, NM

 Sampling Date: 06/13/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 1' (H101253-01)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65		
Toluene*	<b>0.228</b>	0.050	06/20/2011	ND	2.00	100	2.00	4.10		
Ethylbenzene*	<b>0.151</b>	0.050	06/20/2011	ND	2.02	101	2.00	3.90		
<b>Total Xylenes*</b>	<b>1.03</b>	0.150	06/20/2011	ND	6.00	100	6.00	4.06		

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 70-130

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>144</b>	16.0	06/20/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	06/19/2011	ND	232	116	200	5.92		
<b>DRO &gt;C10-C28</b>	<b>2830</b>	50.0	06/19/2011	ND	229	115	200	1.08		

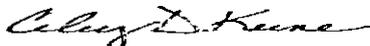
Surrogate: 1-Chlorooctane 113 % 70-130

Surrogate: 1-Chlorooctadecane 120 % 70-130

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: (505) 397-0397

 Received: 06/15/2011  
 Reported: 06/21/2011  
 Project Name: INDIAN BASIN CTB  
 Project Number: NONE GIVEN  
 Project Location: CARLSBAD, NM

 Sampling Date: 06/13/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 1' (H101253-02)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: CMS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65	
Toluene*	1.70	0.050	06/20/2011	ND	2.00	100	2.00	4.10	
Ethylbenzene*	1.02	0.050	06/20/2011	ND	2.02	101	2.00	3.90	
Total Xylenes*	6.16	0.150	06/20/2011	ND	6.00	100	6.00	4.06	

*Surrogate: 4-Bromofluorobenzene (PIL) 108 % 70-130*
**Chloride, SM4500Cl-B**
**mg/kg**
**Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/20/2011	ND	448	112	400	3.64	

**TPH 8015M**
**mg/kg**
**Analyzed By: CK**

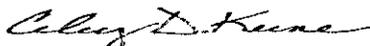
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	213	10.0	06/19/2011	ND	232	116	200	5.92	
DRO >C10-C28	1920	10.0	06/19/2011	ND	229	115	200	1.08	

*Surrogate: 1-Chlorooctane 97.2 % 70-130*
*Surrogate: 1-Chlorooctadecane 92.6 % 70-130*

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: (505) 397-0397

Received:	06/15/2011	Sampling Date:	06/13/2011
Reported:	06/21/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 3 @ 1' (H101253-03)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65		
Toluene*	<b>0.487</b>	0.050	06/20/2011	ND	2.00	100	2.00	4.10		
Ethylbenzene*	<b>0.643</b>	0.050	06/20/2011	ND	2.02	101	2.00	3.90		
Total Xylenes*	<b>3.49</b>	0.150	06/20/2011	ND	6.00	100	6.00	4.06		

 Surrogate: *p*-Bromofluorobenzene (PIL) 98.0 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>32.0</b>	16.0	06/20/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<b>62.5</b>	10.0	06/20/2011	ND	186	93.0	200	4.08		
DRO >C10-C28	<b>5540</b>	10.0	06/20/2011	ND	163	81.7	200	3.24		

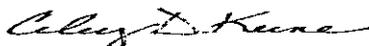
 Surrogate: *1*-Chlorooctane 85.5 % 70-130

 Surrogate: *1*-Chlorooctadecane 96.4 % 70-130

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: (505) 397-0397

Received:	06/15/2011	Sampling Date:	06/14/2011
Reported:	06/21/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 4 @ 1' (H101253-04)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65		
Toluene*	3.99	0.050	06/20/2011	ND	2.00	100	2.00	4.10		
Ethylbenzene*	0.901	0.050	06/20/2011	ND	2.02	101	2.00	3.90		
Total Xylenes*	5.91	0.150	06/20/2011	ND	6.00	100	6.00	4.06		

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/20/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	72.0	50.0	06/20/2011	ND	186	93.0	200	4.08		
DRO >C10-C28	5300	50.0	06/20/2011	ND	163	81.7	200	3.24		

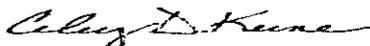
Surrogate: 1-Chlorooctane 110 % 70-130

Surrogate: 1-Chlorooctadecane 97.9 % 70-130

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: (505) 397-0397

Received:	06/15/2011	Sampling Date:	06/14/2011
Reported:	06/21/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 5 @ 1' (H101253-05)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65		
Toluene*	<b>0.620</b>	0.050	06/20/2011	ND	2.00	100	2.00	4.10		
Ethylbenzene*	<b>1.71</b>	0.050	06/20/2011	ND	2.02	101	2.00	3.90		
Total Xylenes*	<b>6.90</b>	0.150	06/20/2011	ND	6.00	100	6.00	4.06		

Surrogate: 4-Bromofluorobenzene (PIL) 94.2 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/20/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<b>442</b>	100	06/20/2011	ND	186	93.0	200	4.08		
DRO >C10-C28	<b>21100</b>	100	06/20/2011	ND	163	81.7	200	3.24		

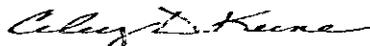
Surrogate: 1-Chlorooctane 79.1 % 70-130

Surrogate: 1-Chlorooctadecane 77.7 % 70-130

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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: (505) 397-0397

Received:	06/15/2011	Sampling Date:	06/14/2011
Reported:	06/21/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 6 @ SURFACE (H101253-06)**

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/20/2011	ND	1.89	94.5	2.00	3.65		
Toluene*	<b>0.088</b>	0.050	06/20/2011	ND	2.00	100	2.00	4.10		
Ethylbenzene*	<b>0.062</b>	0.050	06/20/2011	ND	2.02	101	2.00	3.90		
<b>Total Xylenes*</b>	<b>0.370</b>	0.150	06/20/2011	ND	6.00	100	6.00	4.06		

Surrogate: 4-Bromofluorobenzene (PIL) 94.9 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/20/2011	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	06/20/2011	ND	186	93.0	200	4.08		
<b>DRO &gt;C10-C28</b>	<b>6310</b>	50.0	06/20/2011	ND	163	81.7	200	3.24		

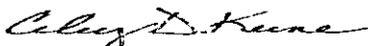
Surrogate: 1-Chlorooctane 99.1 % 70-130

Surrogate: 1-Chlorooctadecane 116 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

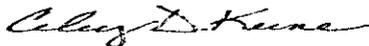
- A-01 Matrix spike was not spiked, use LCS/LCSD for precision and accuracy data.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride 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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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

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

<b>Company Name:</b> BBC International, Inc. <b>Project Manager:</b> Cliff Brunson <b>Address:</b> P.O. Box 805 <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88241 <b>Phone #:</b> 575-397-6388 <b>Fax #:</b> 575-397-0397 <b>Project #:</b> <b>Project Owner:</b> Oxy M/C <b>Project Name:</b> Indian Basin C/TB <b>Project Location:</b> Carlsbad, NM <b>Sampler Name:</b> Jeff Ornelas		<b>BILL TO:</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
<b>Lab I.D.</b> H101253 1 2 3 4 5 6	<b>Sample I.D.</b> SP1 @ 1' SP2 @ 1' SP3 @ 1' SP4 @ 1' SP5 @ 1' SP6 @ Surface	<b>MATRIX</b> WASTEWATER GROUNDWATER SOIL OIL SLUDGE OTHER:	<b>PRESERV</b> ACID/BASE ICE / COOL OTHER:	<b>SAMPLING</b> DATE TIME	(Handwritten: Chicle, TPH, BTEX, 8015 M)
(G)RAB OR (C)OMP.	# CONTAINERS	WASTEWATER GROUNDWATER SOIL OIL SLUDGE OTHER:	ACID/BASE ICE / COOL OTHER:	6-13-11 10:20 am 6-13-11 2:08 pm 6-13-11 3:29 pm 6-14-11 8:44 am 6-14-11 9:49 am 6-14-11 10:30 am	(Handwritten: checkmarks)

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**Relinquished By:** (Signature) **Date:** 6-15-11 **Received By:** (Signature)  
**Relinquished By:** (Signature) **Date:** 6-15-11 **Received By:** (Signature)  
**Delivered By:** (Signature) **Date:** 6-15-11 **Received By:** (Signature)  
**Sampler - UPS - Bus - Other:** -40

**Sample Condition:** Cool  Intact   
 Yes  No

**Checked By:** (Signature) (Initials) 4/4

**Phone Result:**  Yes  No **Add'l Phone #:**  
**Fax Result:**  Yes  No **Add'l Fax #:**

**REMARKS:**  
 (Handwritten: #26)

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

July 22, 2011

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: INDIAN BASIN CTB

Enclosed are the results of analyses for samples received by the laboratory on 07/15/11 8:40.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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: (505) 397-0397

 Received: 07/15/2011  
 Reported: 07/22/2011  
 Project Name: INDIAN BASIN CTB  
 Project Number: NONE GIVEN  
 Project Location: CARLSBAD, NM

 Sampling Date: 07/14/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 2 FT. (H101465-01)**

BTEX 8021B		mg/kg		Analyzed By: CMS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	<b>0.348</b>	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	<b>0.818</b>	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
<b>Total Xylenes*</b>	<b>1.56</b>	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 170 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>132</b>	10.0	07/18/2011	ND	201	101	200	3.59		
<b>DRO &gt;C10-C28</b>	<b>1780</b>	10.0	07/18/2011	ND	170	85.1	200	0.0329		

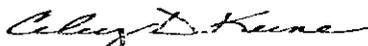
Surrogate: 1-Chlorooctane 106 % 70-130

Surrogate: 1-Chlorooctadecane 125 % 70-130

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: (505) 397-0397

Received:	07/15/2011	Sampling Date:	07/14/2011
Reported:	07/22/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 4 @ 2 FT. (H101465-02)**

BTEX 8021B		mg/kg		Analyzed By: CMS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	0.275	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	0.802	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
Total Xylenes*	1.33	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 164 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	73.1	10.0	07/18/2011	ND	201	101	200	3.59		
DRO >C10-C28	807	10.0	07/18/2011	ND	170	85.1	200	0.0329		

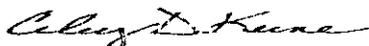
Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 119 % 70-130

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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: (505) 397-0397

Received:	07/15/2011	Sampling Date:	07/14/2011
Reported:	07/22/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 5 @ 2 FT. (H101465-03)**

BTEX 8021B		mg/kg		Analyzed By: CMS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	<b>0.593</b>	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	<b>1.75</b>	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
Total Xylenes*	<b>4.34</b>	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 250 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>16.0</b>	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<b>660</b>	10.0	07/18/2011	ND	201	101	200	3.59		
DRO >C10-C28	<b>4910</b>	10.0	07/18/2011	ND	170	85.1	200	0.0329		

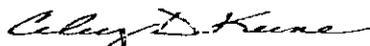
Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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: (505) 397-0397

Received:	07/15/2011	Sampling Date:	07/14/2011
Reported:	07/22/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 5 @ 4 FT (H101465-04)**

BTEX 8021B		mg/kg		Analyzed By: CMS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	<b>0.222</b>	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	<b>0.890</b>	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
<b>Total Xylenes*</b>	<b>2.94</b>	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 201 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>242</b>	10.0	07/18/2011	ND	201	101	200	3.59		
<b>DRO &gt;C10-C28</b>	<b>2280</b>	10.0	07/18/2011	ND	170	85.1	200	0.0329		

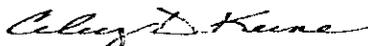
Surrogate: 1-Chlorooctane 122 % 70-130

Surrogate: 1-Chlorooctadecane 116 % 70-130

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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: (505) 397-0397

Received:	07/15/2011	Sampling Date:	07/14/2011
Reported:	07/22/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 5 @ 5 FT (H101465-05)**

BTEX 8021B		mg/kg		Analyzed By: CMS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	0.112	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	0.722	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
Total Xylenes*	2.45	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 190 % 70-130

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	202	10.0	07/18/2011	ND	201	101	200	3.59		
DRO >C10-C28	1920	10.0	07/18/2011	ND	170	85.1	200	0.0329		

Surrogate: 1-Chlorooctane 125 % 70-130

Surrogate: 1-Chlorooctadecane 115 % 70-130

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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: (505) 397-0397

Received:	07/15/2011	Sampling Date:	07/14/2011
Reported:	07/22/2011	Sampling Type:	Soil
Project Name:	INDIAN BASIN CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	CARLSBAD, NM		

**Sample ID: SP 6 @ 2 FT (H101465-06)**

BTEX 8021B		mg/kg		Analyzed By: CMS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/21/2011	ND	1.51	75.7	2.00	29.5		
Toluene*	<b>0.925</b>	0.050	07/21/2011	ND	1.63	81.5	2.00	28.3		
Ethylbenzene*	<b>1.87</b>	0.050	07/21/2011	ND	1.73	86.7	2.00	29.0		
<b>Total Xylenes*</b>	<b>2.40</b>	0.150	07/21/2011	ND	5.21	86.9	6.00	27.7		

Surrogate: 4-Bromofluorobenzene (PIL) 260 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/18/2011	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>723</b>	10.0	07/18/2011	ND	201	101	200	3.59		
<b>DRO &gt;C10-C28</b>	<b>2460</b>	10.0	07/18/2011	ND	170	85.1	200	0.0329		

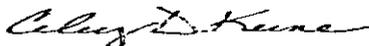
Surrogate: 1-Chlorooctane 101 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

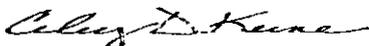
- S-04      The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND        Analyte NOT DETECTED at or above the reporting limit
- RPD      Relative Percent Difference
- \*\*        Samples not received at proper temperature of 6°C or below.
- \*\*\*      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

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

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

BILL TO		ANALYSIS REQUEST																			
Company Name: BBC International, Inc.		P.O. #:		Company:																	
Project Manager: Cliff Brunson		Address: P.O. Box 805		Attn:																	
City: Hobbs		State: NM Zip: 88241		Address: C/MAS																	
Phone #: 575-397-6388		Fax #: 575-397-0397		City:																	
Project #:		Project Owner: OXY MC		State:																	
Project Name: INDIAN BASIN CENTRAL TANK BATTERY		Project Location: Coalsbad, NM		Phone #:																	
Sampler Name: Jeff Ornelas		Fax #:																			
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL:	OTHER:	MATRIX	PRESERV:	SAMPLING	DATE	TIME	104	BTEX	104
	H101465		G	1			X	X	X		X	X	X	X	X	X	7-4-11	1035	X	X	X
		SP3@2H	G	1			X	X	X		X	X	X	X	X	X		1120	X	X	X
		SP4@2H	G	1			X	X	X		X	X	X	X	X	X		100	X	X	X
		SP5@2H	G	1			X	X	X		X	X	X	X	X	X		139	X	X	X
		SP5@5H	G	1			X	X	X		X	X	X	X	X	X		145	X	X	X
		SP6@2H	G	1			X	X	X		X	X	X	X	X	X		146	X	X	X

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Relinquished By: *Jeff Ornelas* Date: 7-15-11 Time: 8:00  
 Received By: *Uddi Jensen*  
 Delivered By: (Circle One)  Cool  Intact  
 Sampler - UPS - Bus - Other:  Yes  No

Phone Result:  Yes  No ; Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No ; Add'l Fax #: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

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

## Kathy Purvis

---

**From:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>  
**Sent:** Tuesday, October 11, 2011 3:10 PM  
**To:** Cliff P. Brunson  
**Cc:** Dusty Wilson; C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** RE: Oxy-Indian Basin Central Tank Battery

Reference: OXY USA \* Indian Basin CTB (CTB-400) Old Ranch Knoll 8 #5 \* 30-015-31326 \* K-8-22s-24e \* Eddy County, New Mexico

OCD Reference Number: 2RP-628 \* DOR: 2/11/11

Cliff,

As discussed, the remediation proposal submitted for cleanup of the above referenced produced fluid release is approved with the following conditions and/or stipulations:

- Notify OCD District 2 office 48 hours prior to commencement of remedial activities.
- Notify OCD District 2 office 48 hours prior to obtaining any samples where the analyses will be submitted to OCD.
- Confirmation samples may be required, dependent on actual excavation depth achieved. OCD approval required prior to backfilling any excavated area.
- Submit a Form C-141 Final Report and closure report upon satisfactory completion of project.
- Project is to be completed and closure documentation submitted to OCD not later than December 11, 2011.
- Like approval by BLM or any other regulatory authority as may be applicable.

Be advised, OCD approval does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

*Mike Bratcher*

NMOCD District 2  
811 S. First Street  
Artesia, NM 88210  
575-748-1283 Ext. 108  
575-626-0857  
[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)

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**From:** Cliff P. Brunson [<mailto:cbrunson@bbcinternational.com>]  
**Sent:** Friday, September 16, 2011 6:59 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** Dusty Wilson; C J Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** Oxy-Indian Basin Central Tank Battery

Mike,

This e-mail is to confirm our discussion on September 13, 2011 concerning the remediation plan for the release that occurred at the Oxy Indian Basin Central Tank Battery. As agreed, Oxy will hand excavate 1 to 2 feet of the impacted soil in the spill area or as practicable. The excavation will then be backfilled with clean soil appropriate for the interior of a battery. In addition, natural attenuation will be occurring for the subsurface hydrocarbons that will be remaining after the excavation. The depth to groundwater in this area is approximately 100 feet.

I have attached the site drawing and laboratory data and a few pictures that we reviewed during our discussion for your files. If you would please reply back via e-mail with your concurrence of this remediation plan, it would be greatly appreciated.

Oxy and I thank you for your assistance in handling this matter.

Thanks, Cliff

Cliff Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)

\*\*\*\*\*

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## Kathy Purvis

---

**From:** Cliff P. Brunson <cbrunson@bbcinternational.com>  
**Sent:** Wednesday, January 30, 2013 4:02 PM  
**To:** Kathy Purvis  
**Subject:** FW: Undesirable Event: 11NU043TG, Indian Basin Central Tank Battery: cleanup plan approval stipulations

Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)

\*\*\*\*\*

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**From:** Terry Gregston <[tgregsto@blm.gov](mailto:tgregsto@blm.gov)>  
**Date:** Thursday, January 24, 2013 10:41 AM  
**To:** C J Summers <[Chancey\\_Summers@oxy.com](mailto:Chancey_Summers@oxy.com)>, Cliff Brunson <[cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)>, Mike Bratcher <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>, Chris Jones <[Christopher\\_Jones@oxy.com](mailto:Christopher_Jones@oxy.com)>  
**Cc:** James Amos <[jamos@blm.gov](mailto:jamos@blm.gov)>  
**Subject:** Undesirable Event: 11NU043TG, Indian Basin Central Tank Battery: cleanup plan approval stipulations

Gentlemen,

This notification is in regard to the following location and undesirable event:

Event Number: 11NU043TG  
Event Date: 2/11/2011  
Event Name: Indian Basin Central Tank Battery  
Legals: T22S/R24E, sec. 8, SESW

The submitted cleanup plan for the above location is approved with the following conditions of approval:

**Notification Stipulations:**

- 1. A copy of the cleanup plan and conditions of approval must be given to the contractor or site work personnel and be present on the location during all cleanup operations.**
- 2. The authorized officer must be notified at the following phases of cleanup or conditions:**
  - a. Prior to moving equipment on location for cleanup

- b. When the excavation is nearing completion and a BLM inspection of the excavation or witnessing of sampling is required by the cleanup plan COA's.
  - c. When the cleanup work is nearing completion and to schedule a final onsite prior to removal of equipment.
  - d. Three days before the site is seeded.
  - e. Any time that a variance of the approved plan or conditions of approval is required.
  - f. In the event that you encounter excavation difficulties, unexpected void areas, or archeological artifacts the Authorized Officer must be contacted immediately. An onsite may be required to assess the situation.
3. The authorized officer on this undesirable event case is:

**Terry Gregston**  
**(575) 361-2635**  
**[tgregsto@blm.gov](mailto:tgregsto@blm.gov)**

### **Facility Cleanup Stipulations:**

#### **Unlined facility:**

1. The BLM requires horizontal cleanup of the spill impacted areas in addition to vertical cleanup/mitigation measures. In this case, the location is still a working tank battery location. As such, excavation depths in portions of the spill area in close proximity to standing production equipment may be limited due to safety concerns. In such cases, the cleanup measures will be considered a temporary spill abatement measure that will be further mitigated upon the abandonment of the well/facility location. Appropriate notations to that effect will be entered in the well file.
2. Cleanup will include removal of any contaminated berm materials and/or unsuitable berm materials such as sandy soils, gravels, or cobblestones. Tank battery berms should be built of compactable caliche that is capable of fluid containment.
3. The BLM may wish to inspect the excavation once it reaches cleanup depth/width. Confirmation samples of excavation sidewalls and any visibly affected areas outside of the excavation trench will be required; the BLM may witness the sampling. Contact the authorized officer to schedule.
4. Lab analysis of the confirmation sampling must be forwarded to the authorized officer for final approval before backfilling. Based on the sampling results, additional cleanup may be required or the site may be approved for closure.
5. Once final approval of cleanup is given, the excavation can be backfilled with compactable caliche to the level of the original native contour plus enough loft to accommodate the settling and compaction of unconsolidated fill soils.
6. Install secondary containment berms of good quality compactable caliche around existing production equipment and the pad to prevent future spills from being released off the facility location.

### **Pad Cleanup Stipulations:**

1. Pad should be bermed with compactable material to prevent future spills from leaving the pad and impacting pasture areas.

### **Installation of Liner Cap in Spill Cleanup Areas:**

1. The operator proposes to install a 1' clay liner in the tank battery as a spill stabilization measure until the tank battery is abandoned. Further mitigation of the spill impacted areas will take place at tank battery abandonment.

### **Other Stipulations:**

1. Spill prevention alarms and automation will be tested to ensure that equipment is working properly.
2. At the time of the final onsite for this location, the production facilities, well pad, access road, and the surrounding pasture areas must be in a condition that will pass a routine inspection.
3. All household trash, debris, disconnected pipe and equipment must be removed from the area and the surrounding pasture and hauled to an authorized landfill. Do not bury cleanup trash, equipment debris, or household garbage in the cleanup excavation.

---

**BLM approval of this proposal does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health, or the environment, or if the location fails to reclaim properly. In such an event that location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws/regulations.**

Thank you for your attention to this matter,

**Terry Gregston**  
Environmental Protection Specialist  
Bureau of Land Management  
620 E. Greene St.  
Carlsbad, NM 88220  
Office (575) 234-5958  
Cell (575) 361-2635  
Fax (575) 234-5927

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Terry,

I have attached a remediation packet of information for your review. This is the same information that was presented in our meeting on January 22, 2013. The packet includes a site diagram with sample points,, a lab data summary table, and the original lab data. As we discussed, Oxy will excavate the impacted soil to a depth of 2 feet across the entire battery area inside the berm and then a 1 foot compacted clay liner in the excavation, then backfill with appropriate clean soil. In addition, repairs will be made to the berm and insure that suitable material will be used that will provide better containment of any future fluid releases if they were to occur.

Oxy is therefore requesting the approval of the BLM to proceed with the submitted remediation plan. If you would please respond back via e-mail with your approval, it would be greatly appreciated. If you have any questions, please let us know.

Thank you,

Cliff