



## **OXY – SAND DUNES 28 FEDERAL #1 SWD BATTERY**

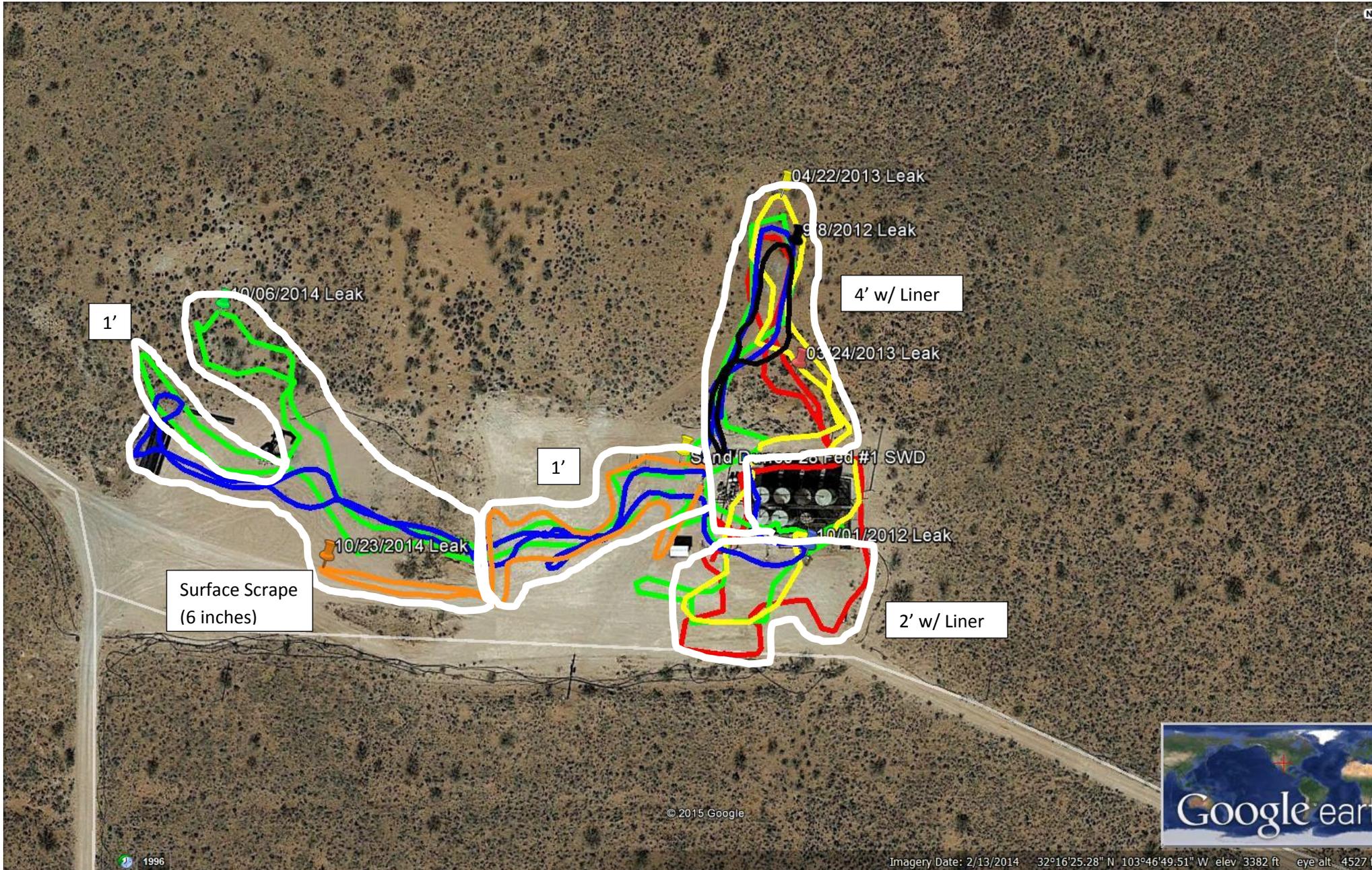
### **REMEDIATION PLAN**

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OXY will excavate the spill area as depicted on the following aerial diagram. The spill areas outlined in white represent the excavation areas and the associated depths are next to the outlines. The entire location will be bermed to assist in reducing the coverage of any potential future releases.

The southernmost road will be blocked and removed from further traffic use.

The site will then be backfilled with clean soil. All excavated materials will be disposed of at an NMOCD-approved disposal facility.



1'

Surface Scrape  
(6 inches)

1'

4' w/ Liner

2' w/ Liner

04/22/2013 Leak

09/08/2012 Leak

03/24/2013 Leak

Sand Dunes 20 Fed #1 SWD

10/01/2012 Leak

10/06/2014 Leak

10/23/2014 Leak



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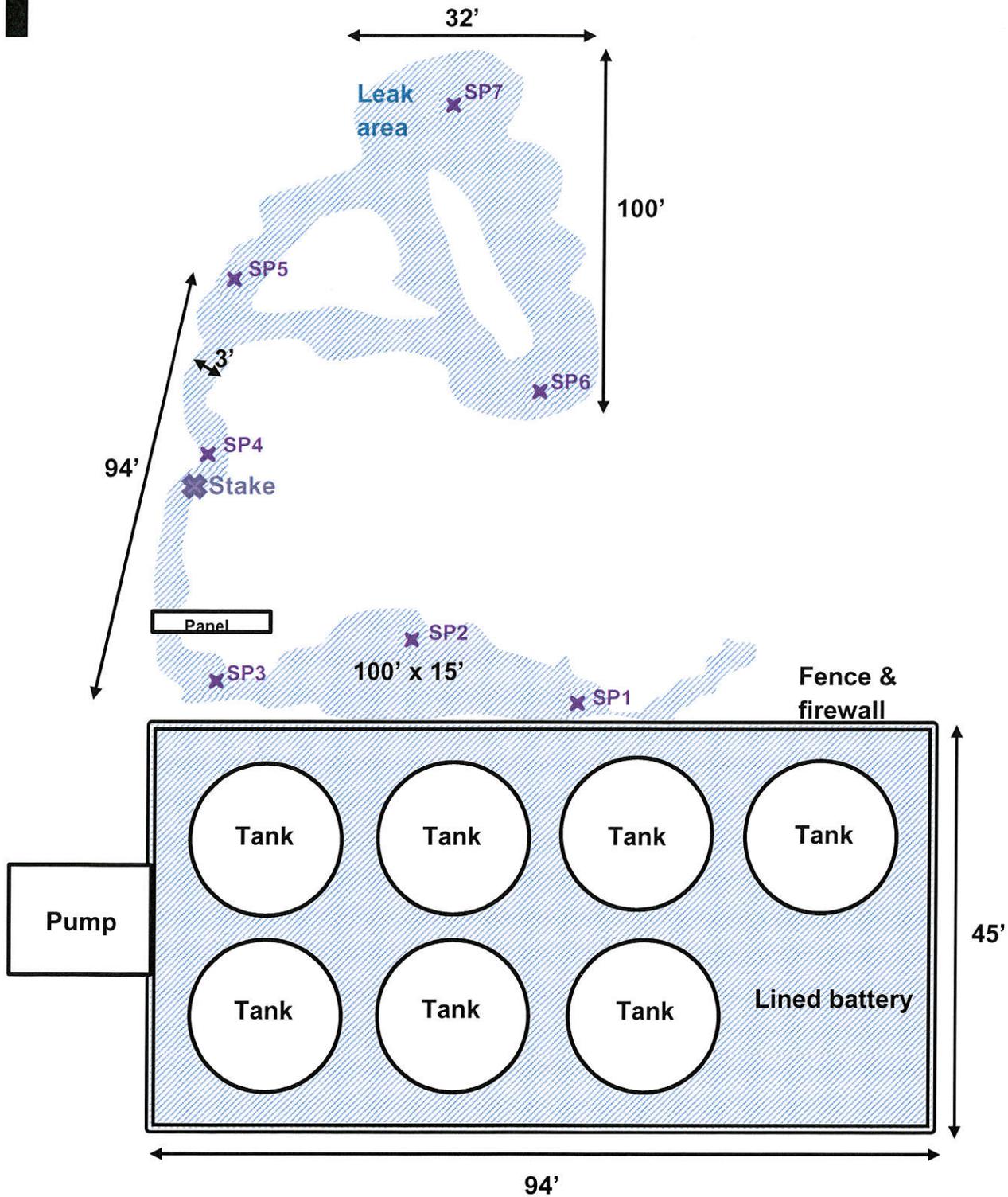
Imagery Date: 2/13/2014 32°16'25.28" N 103°46'49.51" W elev 3382 ft eye alt 4527 ft

1996



Oxy

Sand Dunes 28 Federal #1 SWD



BBC International, Inc.

Oxy

Sand Dunes 28 Fed #1 SWD

Date: 09/20/12

DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2012

U/L J, Section 28, T23S, R31E  
1980' FSL & 1980' FEL  
Eddy County, NM  
N 32.27385° W 103.78036°  
API# 30-015-26194



Oxy

# Sand Dunes 28 Federal #1

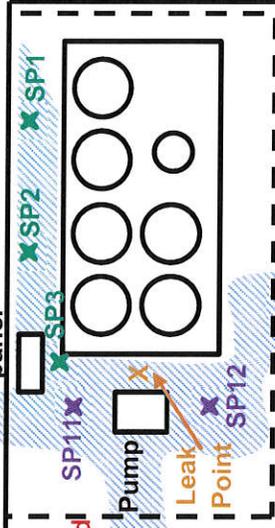
140'



Pasture

Pure Gold D #11

Sand Dunes 28-1



Pasture

600'

Road

Pasture

Road

Road



U/L J, Section 28, T23S, R31E  
 1980' FSL & 1980' FEL  
 Eddy County, NM  
 N 32.27385° W 103.78036°  
 API# 30-015-26194

BBC International, Inc.

Oxy

## Sand Dunes 28 Federal #1

Date: 11/5/12 DRWG by: K. Purvis

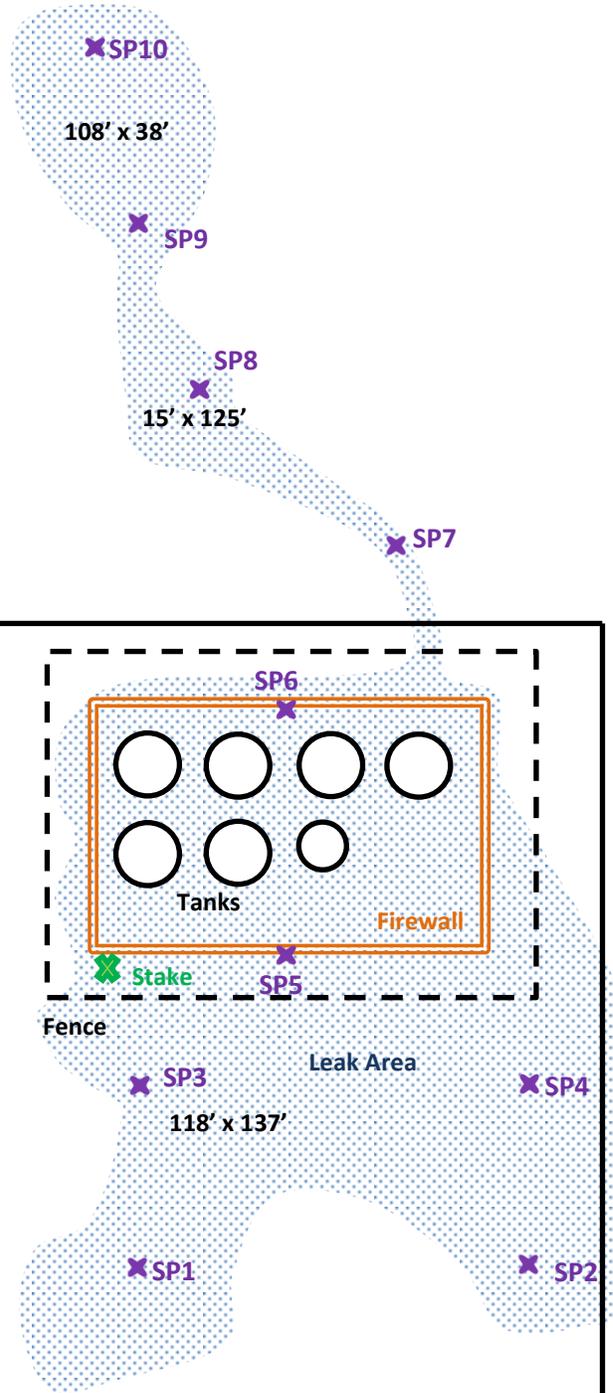
NOT TO SCALE File: Oxy 2012



Oxy

### Sand Dunes 28 Federal #1 SWD

Pasture



Location Pad

Fence

Leak Area

118' x 137'

Road

U/L J, Section 28, T23S, R31E  
Eddy County, NM

N 32.27641° W 103.78047°

**BBC International, Inc.**

**Oxy**

**Sand Dunes 28 Federal #1 SWD**

Date: 03/28/2013

DRWG by: K. Purvis

NOT TO SCALE

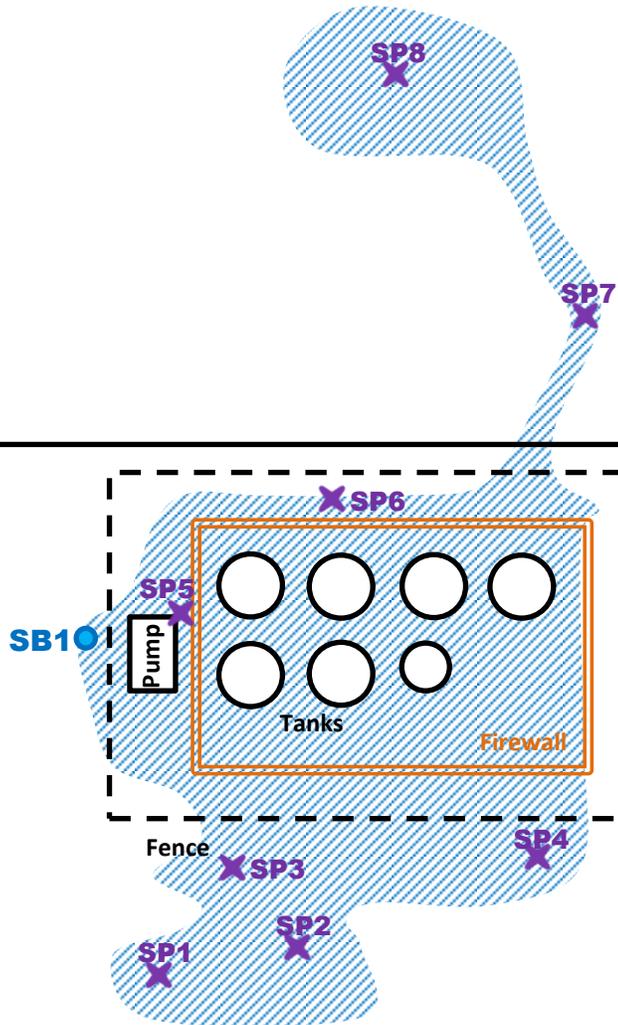
File: Oxy 2013



Oxy  
Sand Dunes 28 Federal #1 SWD

Pasture

Location Pad



Road

U/L J, Section 28, T23S, R31E  
Eddy County, NM

N 32.27641° W 103.78047°

BBC International, Inc.

Oxy  
Sand Dunes 28 Federal #1 SWD

Date: 05/07/2013

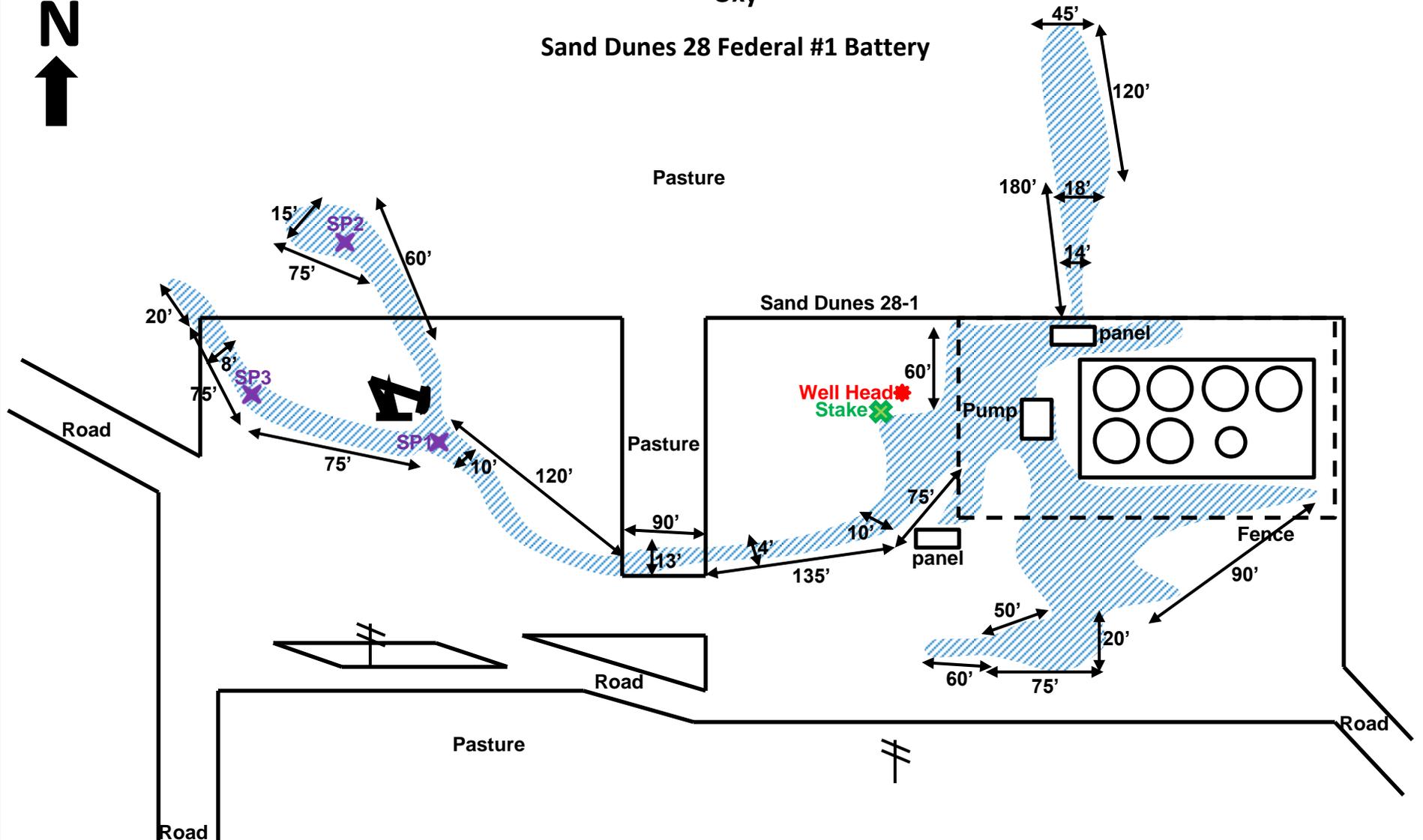
DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2013



Oxy  
Sand Dunes 28 Federal #1 Battery



U/L J, Section 28, T23S, R31E  
Eddy County, NM  
N 32.27361° W 103.78067° at stake  
API# 30-015-26194

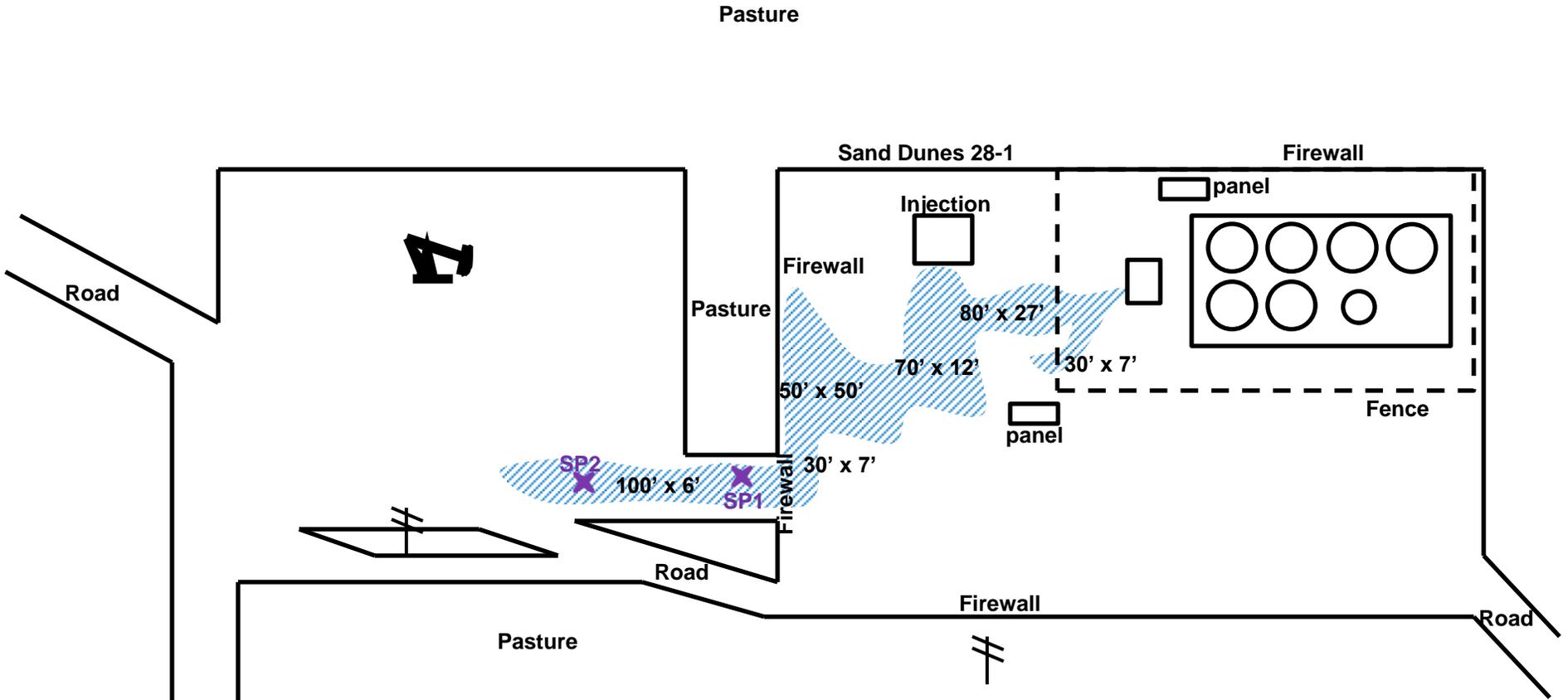
BBC International, Inc.

Oxy  
Sand Dunes 28 Federal #1

Date: 10/10/14	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2014



Oxy  
Sand Dunes 28 Federal #1 SWD Battery



U/L J, Section 28, T23S, R31E  
Eddy County, NM  
N 32.27361° W 103.78067° at stake  
API# 30-015-26194

BBC International, Inc.	
Oxy	
Sand Dunes 28 Federal #1	
Date: 11/14/14	DRWG by: K. Purvis
NOT TO SCALE	File: Oxy 2014



# Groundwater Plot

## Oxy Sand Dunes 28 Fed #1 Battery

County  
Eddy

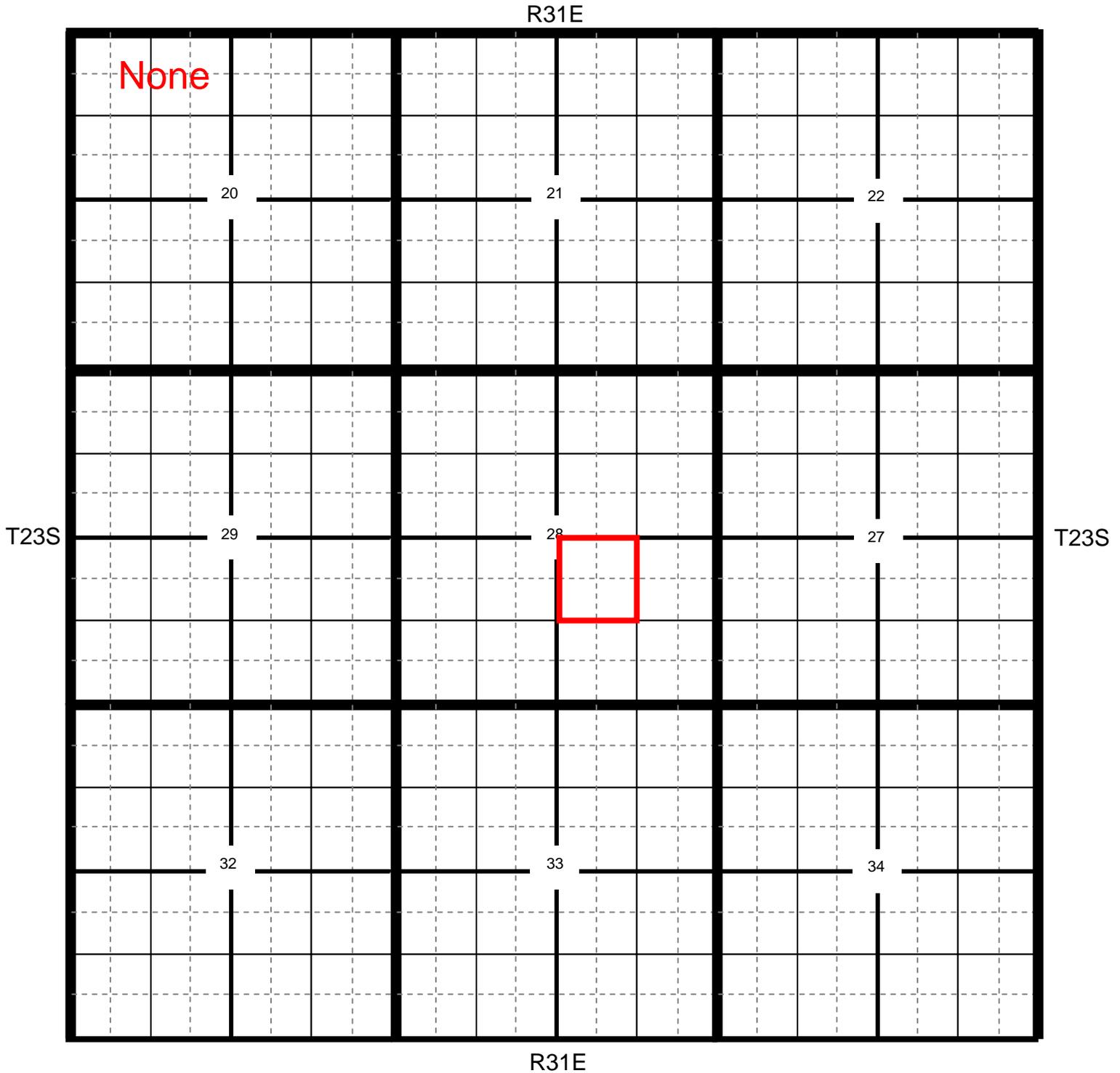
Unit Letter  
J

Section  
28

Township  
23S

Range  
31E

Trend Map 200'-250'



📍 Location

● OCD

● USGS

● SEO

● All Databases

## Oxy Sand Dunes 28 Federal #1 Battery

<b>County</b> Eddy	<b>Unit Letter</b> J	<b>Section</b> 28	<b>Township</b> 23S	<b>Range</b> 31E
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Trend Map 200'-250'

1

2

NW/NW <span style="color: red; font-size: 1.2em;">None</span>	NE/NW	NW/NE	NE/NE
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SE/NW	SW/NE	SE/NE
Unit Letter E	Unit Letter F	Unit Letter G	Unit Letter H
NW/SW	NE/SW	NW/SE	NE/SE
Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW/SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

**Laboratory Analytical Results Summary  
OXY, Sand Dunes #28-1 SWD**

		Sample	SP1 @ 1'	SP1 @ 3'	SP1 @ 5'	SP1 @ 8'
Analyte	Method	Date	10/4/12	10/4/12	10/4/12	10/4/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<b>0.134</b>	<b>0.174</b>	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<b>0.401</b>	<b>1.03</b>	<b>0.345</b>	<0.050
Total Xylenes	BTEX 8021B		<b>2.05</b>	<b>8.04</b>	<b>2.63</b>	<0.150
Chloride	SM4500Cl-B		<b>1520</b>	<b>3520</b>	<b>1650</b>	<16
GRO	TPH 8015M		<b>422</b>	<b>638</b>	<b>56.8</b>	<10.0
DRO	TPH 8015M		<b>6170</b>	<b>6460</b>	<b>411</b>	<10.0

		Sample	SP2 @ 1'	SP2 @ 3'	SP2 @ 6'
Analyte	Method	Date	10/4/12	10/4/12	10/4/12
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<b>0.295</b>	<0.050	<0.050
Total Xylenes	BTEX 8021B		<b>1.70</b>	<0.150	<0.150
Chloride	SM4500Cl-B		<b>3000</b>	<b>352</b>	<16
GRO	TPH 8015M		<b>36.9</b>	<10.0	<10.0
DRO	TPH 8015M		<b>876</b>	<10.0	<10.0

		Sample	SP3 @ 1'	SP3 @ 3'	SP3 @ 6'	SP3 @ 8'	SP3 @ 10'
Analyte	Method	Date	10/4/12	10/4/12	10/4/12	10/4/12	10/4/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.200	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<b>0.199</b>	<0.200	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<b>2.24</b>	<b>3.38</b>	<b>0.067</b>	<0.050	<0.050
Total Xylenes	BTEX 8021B		<b>10.8</b>	<b>17.0</b>	<b>0.280</b>	<0.150	<0.150
Chloride	SM4500Cl-B		<b>224</b>	<b>6880</b>	<b>1920</b>	<b>1360</b>	<16
GRO	TPH 8015M		<b>221</b>	<b>571</b>	<b>10.4</b>	<10.0	<10.0
DRO	TPH 8015M		<b>3960</b>	<b>6690</b>	<b>198</b>	<10.0	<10.0

		Sample	SP4 @ 1'	SP4 @ 3'	SP4 @ 5'	SP4 @ 8'	SP4 @ 11'	SP4 @ 14'
Analyte	Method	Date	10/5/12	10/5/12	10/5/12	10/5/12	10/5/12	10/5/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.200	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<b>0.730</b>	<b>0.149</b>	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<b>5.09</b>	<b>2.16</b>	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<b>57.4</b>	<b>13.3</b>	<b>0.216</b>	<0.150	<0.150	<0.150
Chloride	SM4500Cl-B		<b>6400</b>	<b>3800</b>	<b>3120</b>	<b>448</b>	<b>1360</b>	<b>48</b>
GRO	TPH 8015M		<b>1170</b>	<b>485</b>	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<b>6440</b>	<b>4340</b>	<b>206</b>	<b>27.3</b>	<b>13.3</b>	<10.0

		Sample	SP5 @ 2'
Analyte	Method	Date	10/5/12
			mg/Kg
Benzene	BTEX 8021B		<0.200
Toluene	BTEX 8021B		<b>0.238</b>
Ethylbenzene	BTEX 8021B		<b>4.18</b>
Total Xylenes	BTEX 8021B		<b>19.0</b>
Chloride	SM4500Cl-B		<b>5840</b>
GRO	TPH 8015M		<b>482</b>
DRO	TPH 8015M		<b>4920</b>

		Sample	SP6 @ 2'
Analyte	Method	Date	10/8/12
			mg/Kg
Benzene	BTEX 8021B		<0.050
Toluene	BTEX 8021B		<0.050
Ethylbenzene	BTEX 8021B		<0.050
Total Xylenes	BTEX 8021B		<0.150
Chloride	SM4500Cl-B		<b>832</b>
GRO	TPH 8015M		<10.0
DRO	TPH 8015M		<10.0

		Sample	SP7 @ 2'
Analyte	Method	Date	10/8/12
			mg/Kg
Benzene	BTEX 8021B		<0.050
Toluene	BTEX 8021B		<b>0.135</b>
Ethylbenzene	BTEX 8021B		<b>2.87</b>
Total Xylenes	BTEX 8021B		<b>15.5</b>
Chloride	SM4500Cl-B		<b>992</b>
GRO	TPH 8015M		<b>534</b>
DRO	TPH 8015M		<b>4840</b>

**Laboratory Analytical Results Summary  
OXY, Sand Dunes 28 #1 2nd Leak**

		Sample	SP1 @ SURFACE	SP1 @ 1'
Analyte	Method	Date	10/30/12	10/30/12
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<16.0	<16.0

		Sample	SP2 @ SURFACE	SP2 @ 1'
Analyte	Method	Date	10/30/12	10/30/12
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<16.0	<16.0

		Sample	SP3 @ SURFACE	SP3 @ 1'
Analyte	Method	Date	10/30/12	10/30/12
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		832	32

		Sample	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'
Analyte	Method	Date	10/30/12	10/30/12	10/30/12
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		2320	176	128

		Sample	SP5 @ SURFACE	SP5 @ 1'
Analyte	Method	Date	10/30/12	10/30/12
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		48	<16.0

		Sample	SP6 @ SURFACE	SP6 @ 1'
Analyte	Method	Date	10/30/12	10/30/12
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		32	<16.0

		Sample	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 3'	SP7 @ 6'
Analyte	Method	Date	10/30/12	10/30/12	10/30/12	10/30/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		92800	512	384	<16.0

		Sample	SP8 @ SURFACE	SP8 @ 1'	SP8 @ 3'	SP8 @ 6'	SP8 @ 7'
Analyte	Method	Date	10/30/12	10/30/12	10/31/12	10/31/12	10/31/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		43200	656	336	208	<16.0

**Laboratory Analytical Results Summary**  
**OXY, Sand Dunes 28 #1 2nd Leak**

		Sample	SP9 @ SURFACE	SP9 @ 1'	SP9 @ 3'	SP9 @ 5'
Analyte	Method	Date	10/31/12	10/31/12	10/31/12	10/31/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>58400</b>	<b>608</b>	<b>480</b>	<b>&lt;16.0</b>

		Sample	SP10 @ SURFACE	SP10 @ 1'	SP10 @ 3'	SP10 @ 6'	SP10 @ 7'
Analyte	Method	Date	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>34000</b>	<b>23600</b>	<b>1570</b>	<b>416</b>	<b>176</b>

		Sample	SP11 @ SURFACE	SP11 @ 1'	SP11 @ 3'	SP11 @ 6'	SP11 @ 9'	SP11 @ 13'	SP11 @ 18'
Analyte	Method	Date	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	11/1/12	11/1/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>27600</b>	<b>10900</b>	<b>4560</b>	<b>2920</b>	<b>3000</b>	<b>4360</b>	<b>2480</b>

		Sample	SP12 @ SURFACE	SP12 @ 1'	SP12 @ 3'	SP12 @ 6'	SP12 @ 9'	SP12 @ 13'	SP12 @ 18'
Analyte	Method	Date	10/31/12	10/31/12	10/31/12	10/31/12	10/31/12	11/1/12	11/1/12
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>72000</b>	<b>4640</b>	<b>7280</b>	<b>9600</b>	<b>4320</b>	<b>3240</b>	<b>2120</b>

		Sample	SP13 @ SURFACE	SP13 @ 1'	SP13 @ 3'
Analyte	Method	Date	11/1/12	11/1/12	11/1/12
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>2840</b>	<b>384</b>	<b>96</b>

**Laboratory Analytical Results Summary  
Sand Dunes 28 Federal #1 SWD**

		Sample	SP1 @ 1'	SP1 @ 3'
Analyte	Method	Date	4/4/13	4/4/13
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	N/A
<b>Toluene</b>	BTEX 8021B		<0.050	N/A
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	N/A
<b>Total Xylenes</b>	BTEX 8021B		<0.150	N/A
<b>Total BTEX</b>	BTEX 8021B		<0.300	N/A
<b>Chloride</b>	SM4500CI-B		<b>1970</b>	128
<b>GRO</b>	TPH 8015M		<10.0	N/A
<b>DRO</b>	TPH 8015M		<10.0	N/A

		Sample	SP2 @ 1'	SP2 @ 3'
Analyte	Method	Date	4/4/13	4/4/13
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>1630</b>	128

		Sample	SP3 @ 1'	SP3 @ 3'
Analyte	Method	Date	4/4/13	4/4/13
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>176</b>	4400

		Sample	SP4 @ 1'	SP4 @ 2'
Analyte	Method	Date	4/4/13	4/4/13
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		N/A	<0.050
<b>Toluene</b>	BTEX 8021B		N/A	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		N/A	<0.050
<b>Total Xylenes</b>	BTEX 8021B		N/A	<0.150
<b>Total BTEX</b>	BTEX 8021B		N/A	<0.300
<b>Chloride</b>	SM4500CI-B		<b>208</b>	<b>160</b>
<b>GRO</b>	TPH 8015M		N/A	<10.0
<b>DRO</b>	TPH 8015M		N/A	<10.0

		Sample	SP5 @ 1'	SP5 @ 2'
Analyte	Method	Date	4/4/13	4/4/13
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>320</b>	<b>160</b>

		Sample	SP6 @ 1'	SP6 @ 2'
Analyte	Method	Date	4/5/13	4/5/13
			mg/Kg	mg/Kg
<b>Chloride</b>	SM4500CI-B		<b>640</b>	<b>8720</b>

**Laboratory Analytical Results Summary  
Sand Dunes 28 Federal #1 SWD**

		<b>Sample</b>	<b>SP7 @ 6'</b>
<b>Analyte</b>	<b>Method</b>	<b>Date</b>	4/8/13
			<b>mg/Kg</b>
<b>Chloride</b>	SM4500Cl-B		<b>1010</b>

		<b>Sample</b>	<b>SP8 @ 6'</b>
<b>Analyte</b>	<b>Method</b>	<b>Date</b>	4/8/13
			<b>mg/Kg</b>
<b>Chloride</b>	SM4500Cl-B		<b>1100</b>

		<b>Sample</b>	<b>SP9 @ 6'</b>
<b>Analyte</b>	<b>Method</b>	<b>Date</b>	4/8/13
			<b>mg/Kg</b>
<b>Chloride</b>	SM4500Cl-B		<b>10600</b>

		<b>Sample</b>	<b>SP10 @ 6'</b>
<b>Analyte</b>	<b>Method</b>	<b>Date</b>	4/8/13
			<b>mg/Kg</b>
<b>Chloride</b>	SM4500Cl-B		<b>8960</b>

**Laboratory Analytical Results Summary**  
**Sand Dunes 28-1**

		Sample	SP1 @ 1'	SP1 @ 3'	SP1 @ 5'
Analyte	Method	Date	7/30/13	7/30/13	7/30/13
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		<b>5480</b>	<b>8240</b>	<b>112</b>
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP2 @ 1'	SP2 @ 3'	SP2 @ 4'
Analyte	Method	Date	7/30/13	7/30/13	7/30/13
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		<b>1280</b>	<b>4800</b>	<b>256</b>
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP3 @ 1'	SP3 @ 3'	SP3 @ 5'	SP3 @ 8'
Analyte	Method	Date	7/30/13	7/31/13	7/31/13	7/31/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		<b>7200</b>	<b>3680</b>	<b>2560</b>	<b>288</b>
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<b>581</b>	n/a	n/a	n/a

		Sample	SP4 @ 1'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	7/31/13	7/31/13	7/31/13
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		<b>5440</b>	<b>928</b>	<b>144</b>
GRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP5 @ 1'	SP5 @ 3'	SP5 @ 5'	SP5 @ 9'
Analyte	Method	Date	7/30/13	7/31/13	7/31/13	8/1/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		<b>6640</b>	<b>560</b>	<b>3920</b>	<b>14200</b>
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<b>41.1</b>	n/a	n/a	n/a

		Sample	SP6 @ 1'	SP6 @ 3'	SP6 @ 5'	SP6 @ 7'
Analyte	Method	Date	8/1/13	8/1/13	8/1/13	8/1/13
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		<b>9800</b>	<b>9200</b>	<b>5460</b>	<16.0
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	SP7 @ 1'	SP7 @ 3'	SP7 @ 4'
Analyte	Method	Date	8/1/13	8/1/13	8/1/13
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500CI-B		<b>3120</b>	<b>3680</b>	<16.0
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP8 @ 2'
Analyte	Method	Date	8/1/13
			mg/Kg
Chloride	SM4500CI-B		<b>1760</b>

Laboratory Analytical Results Summary  
Sand Dunes 28-1

DRO	TPH 8015M		<10.0	n/a	n/a
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**Laboratory Analytical Results Summary  
Sand Dunes 28 Federal #1 SWD Battery**

		Sample	SB1 @ 21'	SB1 @ 24'	SB1 @ 26'
Analyte	Method	Date	7/2/14	7/2/14	7/2/14
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>160</b>	<b>224</b>	<b>240</b>

**Laboratory Analytical Results Summary**  
**Sand Dunes 28 Federal #1 SWD Battery (10/06/14 leak)**

		Sample	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>26800</b>	<b>1140</b>	<b>320</b>

		Sample	SP2 @ SURFACE
Analyte	Method	Date	7/15/15
			mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>48</b>

		Sample	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>22000</b>	<b>2200</b>	<b>1640</b>	<b>1260</b>	<b>1070</b>	<b>272</b>

**Laboratory Analytical Results Summary**  
**Sand Dunes 28 Federal #1 SWD Battery (10/23/14 leak)**

		Sample	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>6960</b>	<b>752</b>	<b>128</b>

		Sample	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'
Analyte	Method	Date	7/15/15	7/15/15	7/15/15
			mg/Kg	mg/Kg	mg/Kg
<b>Chloride</b>	SM4500Cl-B		<b>3000</b>	<b>432</b>	<b>80</b>

October 16, 2012

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SAND DUNES #28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 10/11/12 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 1' (H202481-01)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.134</b>	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>0.401</b>	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>2.05</b>	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 174 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1520</b>	16.0	10/15/2012	ND	400	100	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
<b>GRO C6-C10</b>	<b>422</b>	50.0	10/12/2012	ND	173	86.3	200	6.11	
<b>DRO &gt;C10-C28</b>	<b>6170</b>	50.0	10/12/2012	ND	205	103	200	10.9	

Surrogate: 1-Chlorooctane 127 % 65.2-140

Surrogate: 1-Chlorooctadecane 180 % 63.6-154

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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 3' (H202481-02)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.174</b>	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>1.03</b>	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>8.04</b>	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 174 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3520</b>	16.0	10/15/2012	ND	400	100	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
<b>GRO C6-C10</b>	<b>638</b>	50.0	10/13/2012	ND	173	86.3	200	6.11	
<b>DRO &gt;C10-C28</b>	<b>6460</b>	50.0	10/13/2012	ND	205	103	200	10.9	

*Surrogate: 1-Chlorooctane 154 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 182 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 5' (H202481-03)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>0.345</b>	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>2.63</b>	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 175 % 89.4-126*

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>1650</b>	16.0	10/15/2012	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
<b>GRO C6-C10</b>	<b>56.8</b>	10.0	10/13/2012	ND	173	86.3	200	6.11	
<b>DRO &gt;C10-C28</b>	<b>411</b>	10.0	10/13/2012	ND	205	103	200	10.9	

*Surrogate: 1-Chlorooctane 94.4 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 94.3 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 8' (H202481-04)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 89.4-126*

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	10/15/2012	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	10/13/2012	ND	173	86.3	200	6.11	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	205	103	200	10.9	

*Surrogate: 1-Chlorooctane 95.3 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 98.2 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 1' (H202481-05)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>0.295</b>	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>1.70</b>	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 143 % 89.4-126

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>3000</b>	16.0	10/15/2012	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
<b>GRO C6-C10</b>	<b>36.9</b>	10.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>876</b>	10.0	10/13/2012	ND	170	84.8	200	8.47	

Surrogate: 1-Chlorooctane 95.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 3' (H202481-06)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/13/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/13/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/13/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 89.4-126*

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>352</b>	16.0	10/15/2012	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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 95.9 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 97.6 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 6' (H202481-07)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 88.8 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 89.5 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 1' (H202481-08)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.199</b>	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>2.24</b>	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>10.8</b>	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 343 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>224</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>221</b>	50.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>3960</b>	50.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 108 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 163 % 63.6-154*

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**Analytical Results For:**

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 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 3' (H202481-09)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.200	0.200	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>3.38</b>	0.200	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>17.0</b>	0.600	10/15/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 159 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6880</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>571</b>	50.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>6690</b>	50.0	10/13/2012	ND	170	84.8	200	8.47	

Surrogate: 1-Chlorooctane 155 % 65.2-140

Surrogate: 1-Chlorooctadecane 193 % 63.6-154

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 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 6' (H202481-10)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>0.067</b>	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>0.280</b>	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 127 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1920</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>10.4</b>	10.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>198</b>	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 89.5 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 91.9 % 63.6-154*

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**Analytical Results For:**

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 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 8' (H202481-11)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1360</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 85.6 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 86.7 % 63.6-154*

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Received:	10/11/2012	Sampling Date:	10/04/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 10' (H202481-12)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 90.4 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 91.4 % 63.6-154*

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Received:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 1' (H202481-13)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/15/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.730</b>	0.200	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>5.09</b>	0.200	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>57.4</b>	0.600	10/15/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 358 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6400</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>1170</b>	50.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>6440</b>	50.0	10/13/2012	ND	170	84.8	200	8.47	

Surrogate: 1-Chlorooctane 172 % 65.2-140

Surrogate: 1-Chlorooctadecane 182 % 63.6-154

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 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 3' (H202481-14)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.149</b>	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>2.16</b>	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>13.3</b>	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 459 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3800</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>485</b>	50.0	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>4340</b>	50.0	10/13/2012	ND	170	84.8	200	8.47	

Surrogate: 1-Chlorooctane 136 % 65.2-140

Surrogate: 1-Chlorooctadecane 152 % 63.6-154

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 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 5' (H202481-15)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>0.216</b>	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 115 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3120</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>206</b>	10.0	10/13/2012	ND	170	84.8	200	8.47	

Surrogate: 1-Chlorooctane 96.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.1 % 63.6-154

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 8' (H202481-16)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>448</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>27.3</b>	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 84.1 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 85.2 % 63.6-154*

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:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 11' (H202481-17)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1360</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
<b>DRO &gt;C10-C28</b>	<b>13.3</b>	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 85.9 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 85.9 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 14' (H202481-18)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 80.5 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 80.6 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/05/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 5 @ 2' (H202481-19)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/15/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.238</b>	0.200	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>4.18</b>	0.200	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>19.0</b>	0.600	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5840</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>482</b>	50.0	10/13/2012	ND	179	89.3	200	4.40		
<b>DRO &gt;C10-C28</b>	<b>4920</b>	50.0	10/13/2012	ND	170	84.8	200	8.47		

*Surrogate: 1-Chlorooctane 132 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 159 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/08/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 6 @ 2' (H202481-20)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
Toluene*	<0.050	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
Ethylbenzene*	<0.050	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
Total Xylenes*	<0.150	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>832</b>	16.0	10/16/2012	ND	400	100	400	7.69	

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	10/13/2012	ND	179	89.3	200	4.40	
DRO >C10-C28	<10.0	10.0	10/13/2012	ND	170	84.8	200	8.47	

*Surrogate: 1-Chlorooctane 86.6 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 86.8 % 63.6-154*

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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:	10/11/2012	Sampling Date:	10/08/2012
Reported:	10/16/2012	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 7 @ 2' (H202481-21)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2012	ND	2.07	104	2.00	10.6	
<b>Toluene*</b>	<b>0.135</b>	0.050	10/15/2012	ND	1.89	94.6	2.00	9.65	
<b>Ethylbenzene*</b>	<b>2.87</b>	0.050	10/15/2012	ND	1.87	93.5	2.00	9.26	
<b>Total Xylenes*</b>	<b>15.5</b>	0.150	10/15/2012	ND	5.53	92.2	6.00	8.46	

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>992</b>	16.0	10/16/2012	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>534</b>	50.0	10/13/2012	ND	179	89.3	200	4.40		
<b>DRO &gt;C10-C28</b>	<b>4840</b>	50.0	10/13/2012	ND	170	84.8	200	8.47		

Surrogate: 1-Chlorooctane 142 % 65.2-140

Surrogate: 1-Chlorooctadecane 154 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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---

Celey D. Keene, Lab Director/Quality Manager







November 12, 2012

Cliff Brunson  
BBC International, Inc.  
P.O. Box 805  
Hobbs, NM 88241

RE: SAND DUNES 28 #1 2ND LEAK

Enclosed are the results of analyses for samples received by the laboratory on 11/06/12 15:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	10/30/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 1 @ SURFACE (H202705-01)**

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	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 1 @ 1' (H202705-02)**

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	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 2 @ SURFACE (H202705-03)**

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	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 2 @ 1' (H202705-04)**

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	11/09/2012	ND	432	108	400	0.00	

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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:	11/06/2012	Sampling Date:	10/30/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 3 @ SURFACE (H202705-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 3 @ 1' (H202705-06)**

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	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 4 @ SURFACE (H202705-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	11/09/2012	ND	432	108	400	0.00	

**Sample ID: SP 4 @ 1' (H202705-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 4 @ 2' (H202705-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	11/12/2012	ND	416	104	400	0.00	

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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:	11/06/2012	Sampling Date:	10/30/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 5 @ SURFACE (H202705-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 5 @ 1' (H202705-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 6 @ SURFACE (H202705-12)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 6 @ 1' (H202705-13)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 7 @ SURFACE (H202705-14)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	92800	16.0	11/12/2012	ND	416	104	400	0.00	

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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:	11/06/2012	Sampling Date:	10/30/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 7 @ 1' (H202705-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 7 @ 3' (H202705-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 7 @ 6' (H202705-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 8 @ SURFACE (H202705-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	43200	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 8 @ 1' (H202705-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	11/12/2012	ND	416	104	400	0.00	

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	10/31/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 8 @ 3' (H202705-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>336</b>	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 8 @ 6' (H202705-21)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>208</b>	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 8 @ 7' (H202705-22)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 9 @ SURFACE (H202705-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>58400</b>	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 9 @ 1' (H202705-24)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>608</b>	16.0	11/12/2012	ND	416	104	400	0.00	

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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:	11/06/2012	Sampling Date:	10/31/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 9 @ 3' (H202705-25)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 9 @ 5' (H202705-26)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 10 @ SURFACE (H202705-27)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	34000	16.0	11/12/2012	ND	416	104	400	0.00	

**Sample ID: SP 10 @ 1' (H202705-28)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	23600	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 10 @ 3' (H202705-29)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	11/12/2012	ND	400	100	400	0.00	

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	10/31/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 10 @ 6' (H202705-30)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 10 @ 7' (H202705-31)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ SURFACE (H202705-32)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	27600	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ 1' (H202705-33)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10900	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ 3' (H202705-34)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	11/12/2012	ND	400	100	400	0.00	

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	10/31/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 11 @ 6' (H202705-35)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ 9' (H202705-36)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ 13' (H202705-37)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4360	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 11 @ 18' (H202705-38)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 12 @ SURFACE (H202705-39)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	72000	16.0	11/12/2012	ND	400	100	400	0.00	

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	10/31/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 12 @ 1' (H202705-40)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4640	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 12 @ 3' (H202705-41)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7280	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 12 @ 6' (H202705-42)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9600	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 12 @ 9' (H202705-43)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4320	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 12 @ 13' (H202705-44)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3240	16.0	11/12/2012	ND	400	100	400	0.00	

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**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	11/06/2012	Sampling Date:	11/01/2012
Reported:	11/12/2012	Sampling Type:	Soil
Project Name:	SAND DUNES 28 #1 2ND LEAK	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 12 @ 18' (H202705-45)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 13 @ SURFACE (H202705-46)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2840	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 13 @ 1' (H202705-47)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	11/12/2012	ND	400	100	400	0.00	

**Sample ID: SP 13 @ 3' (H202705-48)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/09/2012	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

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Celey D. Keene, Lab Director/Quality Manager





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

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

Company Name: BBC International, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: Cliff Brunson				P.O. #:																							
Address: P.O. Box 805				Company:																							
City: Hobbs		State: NM		Zip: 88241		Attn:																					
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:																							
Project #:		Project Owner: Oxy		City:																							
Project Name: SAND DUNES 28 #1 2ND LEAK				State:		Zip:																					
Project Location: Eddy County, NM				Phone #:																							
Sampler Name: Jeff Ornelas				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.			SAMPLING																
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME													
H2077DS																											
11	SP5 @ 1'	G	1			✓					✓		10/30/12	1:17 PM	✓												
12	SP6 @ SURFACE	G	1			✓					✓		10/30/12	1:23 PM	✓												
13	SP6 @ 1'	G	1			✓					✓		10/30/12	1:33 PM	✓												
14	SP7 @ SURFACE	G	1			✓					✓		10/30/12	1:45 PM	✓												
15	SP7 @ 1'	G	1			✓					✓		10/30/12	2:02 PM	✓												
16	SP7 @ 3'	G	1			✓					✓		10/30/12	2:41 PM	✓												
17	SP7 @ 6'	G	1			✓					✓		10/30/12	3:33 PM	✓												
18	SP8 @ SURFACE	G	1			✓					✓		10/30/12	3:41 PM	✓												
19	SP8 @ 1'	G	1			✓					✓		10/30/12	3:47 PM	✓												
20	SP8 @ 3'	G	1			✓					✓		10/31/12	8:42 AM	✓												

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Relinquished By: <i>Jeff Ornelas</i>		Date: 11-6-12	Received By: <i>Ken Swinson</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		Time: 3:00			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Ken Swinson</i>		Date: 11-6-12	Received By: <i>Jodi Henson</i>		REMARKS:	
		Time: 3:42				
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (Initials)		
Sampler - UPS - Bus - Other:		Cool Intact		<i>JH</i>		
		<input type="checkbox"/> Yes <input type="checkbox"/> No				
		<input type="checkbox"/> No <input type="checkbox"/> No				

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

#26









April 19, 2013

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SAND DUNES #28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/15/13 8:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

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:	04/15/2013	Sampling Date:	04/04/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 1' (H300894-01)**

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	04/18/2013	ND	2.04	102	2.00	7.37	
Toluene*	<0.050	0.050	04/18/2013	ND	2.01	100	2.00	7.72	
Ethylbenzene*	<0.050	0.050	04/18/2013	ND	2.01	101	2.00	7.77	
Total Xylenes*	<0.150	0.150	04/18/2013	ND	5.94	99.0	6.00	7.35	
Total BTEX	<0.300	0.300	04/18/2013	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126*

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1970</b>	16.0	04/16/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/17/2013	ND	214	107	200	1.59	
DRO >C10-C28	<10.0	10.0	04/17/2013	ND	231	116	200	8.38	

*Surrogate: 1-Chlorooctane 88.8 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 107 % 63.6-154*
**Sample ID: SP 1 @ 3' (H300894-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	04/16/2013	ND	432	108	400	0.00	

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:	04/15/2013	Sampling Date:	04/04/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 1' (H300894-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1630	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 2 @ 3' (H300894-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 3 @ 1' (H300894-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 3 @ 3' (H300894-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4400	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 4 @ 1' (H300894-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	04/16/2013	ND	432	108	400	0.00	

Cardinal Laboratories

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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:	04/15/2013	Sampling Date:	04/04/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 4 @ 2' (H300894-08)**

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	04/18/2013	ND	2.04	102	2.00	7.37	
Toluene*	<0.050	0.050	04/18/2013	ND	2.01	100	2.00	7.72	
Ethylbenzene*	<0.050	0.050	04/18/2013	ND	2.01	101	2.00	7.77	
Total Xylenes*	<0.150	0.150	04/18/2013	ND	5.94	99.0	6.00	7.35	
Total BTEX	<0.300	0.300	04/18/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	04/16/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/17/2013	ND	214	107	200	1.59	
DRO >C10-C28	<10.0	10.0	04/17/2013	ND	231	116	200	8.38	

Surrogate: 1-Chlorooctane 88.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

**Sample ID: SP 5 @ 1' (H300894-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>320</b>	16.0	04/16/2013	ND	432	108	400	0.00	

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:	04/15/2013	Sampling Date:	04/04/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 5 @ 2' (H300894-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 6 @ 1' (H300894-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 6 @ 2' (H300894-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8720	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 7 @ 6' (H300894-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 8 @ 6' (H300894-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1100	16.0	04/16/2013	ND	432	108	400	0.00	

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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:	04/15/2013	Sampling Date:	04/08/2013
Reported:	04/19/2013	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 9 @ 6' (H300894-15)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>10600</b>	16.0	04/16/2013	ND	432	108	400	0.00	

**Sample ID: SP 10 @ 6' (H300894-16)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8960</b>	16.0	04/16/2013	ND	432	108	400	0.00	

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc. **BILL TO** ANALYSIS REQUEST

Project Manager: Cliff Brunson P.O. #:  
 Address: P.O. Box 805 Company:  
 City: Hobbs State: NM Zip: 88241  
 Phone #: 575-397-6388 Fax #: 575-397-0397  
 Project #: Project Owner: Oxy  
 Project Name: Sand Dunes 28 Federal #1 SWD  
 Project Location: Eddy County, NM  
 Sampler Name: Roger Hernandez  
 P.O. #:  
 Company:  
 Address:  
 City:  
 State: Zip:  
 Phone #:  
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		DATE	TIME							
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL									
<del>H202584</del>																				
11	SP6 @ 1'		6	✓							4/5/13	9:30 AM	✓							
12	SP6 @ 2'		6	✓							4/5/13	9:48 AM	✓							
13	SP7 @ 6'		6	✓							4/8/13	9:10 AM	✓							
14	SP8 @ 6'		6	✓							4/8/13	10:50 AM	✓							
15	SP9 @ 6'		6	✓							4/8/13	1:00 PM	✓							
16	SP10 @ 6'		6	✓							4/8/13	2:13 PM	✓							

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *[Signature]* Date: *4/15/13* Time: *9:40*  
 Received By: *[Signature]* Date: *4/15/13* Time: *9:40*  
 Delivered By: (Circle One)  UPS  Bus  Other: *50*  
 Sample Condition:  Cool  Intact  Yes  No  Yes  No  
 CHECKED BY: *[Signature]*  
 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

August 11, 2013

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SAND DUNES 28-1

Enclosed are the results of analyses for samples received by the laboratory on 08/07/13 11:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/07/2013	Sampling Date:	07/30/2013
Reported:	08/11/2013	Sampling Type:	Soil
Project Name:	SAND DUNES 28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 1 @ 1' (H301840-01)**

BTEX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

Surrogate: Dibromofluoromethane 96.8 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 106 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>5480</b>	16.0	08/09/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/09/2013	ND	191	95.5	200	0.596		
DRO >C10-C28	<10.0	10.0	08/09/2013	ND	204	102	200	0.0598		

Surrogate: 1-Chlorooctane 104 % 65.2-140

Surrogate: 1-Chlorooctadecane 130 % 63.6-154

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: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/30/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 3' (H301840-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8240	16.0	08/09/2013	ND	416	104	400	0.00	

**Sample ID: SP 1 @ 5' (H301840-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/09/2013	ND	416	104	400	0.00	

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: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/30/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 1' (H301840-04)**

<b>BTEX 8260B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60	
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07	
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60	
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00	
Total BTEX	<0.300	0.300	08/09/2013	ND					

*Surrogate: Dibromofluoromethane* 99.5 % 61.3-142

*Surrogate: Toluene-d8* 102 % 71.3-129

*Surrogate: 4-Bromofluorobenzene* 104 % 65.7-141

<b>Chloride, SM4500Cl-B</b>		<b>mg/kg</b>		<b>Analyzed By: AP</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1280</b>	16.0	08/09/2013	ND	416	104	400	0.00	

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/09/2013	ND	191	95.5	200	0.596	
DRO >C10-C28	<10.0	10.0	08/09/2013	ND	204	102	200	0.0598	

*Surrogate: 1-Chlorooctane* 104 % 65.2-140

*Surrogate: 1-Chlorooctadecane* 129 % 63.6-154

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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: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/30/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 3' (H301840-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>4800</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 2 @ 4' (H301840-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>256</b>	16.0	08/09/2013	ND	400	100	400	3.92	

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**Analytical Results For:**

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 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/30/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 1' (H301840-07)**

<b>BTEX 8260B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

*Surrogate: Dibromofluoromethane* 97.3 % 61.3-142

*Surrogate: Toluene-d8* 100 % 71.3-129

*Surrogate: 4-Bromofluorobenzene* 106 % 65.7-141

<b>Chloride, SM4500Cl-B</b>		<b>mg/kg</b>		<b>Analyzed By: AP</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>7200</b>	16.0	08/09/2013	ND	400	100	400	3.92		

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/09/2013	ND	191	95.5	200	0.596		
<b>DRO &gt;C10-C28</b>	<b>581</b>	10.0	08/09/2013	ND	204	102	200	0.0598		

*Surrogate: 1-Chlorooctane* 107 % 65.2-140

*Surrogate: 1-Chlorooctadecane* 142 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 3' (H301840-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3680</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 5' (H301840-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2560</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 3 @ 8' (H301840-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>288</b>	16.0	08/09/2013	ND	400	100	400	3.92	

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 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 1' (H301840-11)**

BTEX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

Surrogate: Dibromofluoromethane 96.9 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 105 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>5440</b>	16.0	08/09/2013	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	08/09/2013	ND	191	95.5	200	0.596		
DRO >C10-C28	<10.0	10.0	08/09/2013	ND	204	102	200	0.0598		

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 131 % 63.6-154

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 Fax To: (575) 397-0397

 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 3' (H301840-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>928</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 4 @ 4 (H301840-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	08/09/2013	ND	400	100	400	3.92	

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 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 5 @ 1' (H301840-14)**

<b>BTEX 8260B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

Surrogate: Dibromofluoromethane 97.2 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 105 % 65.7-141

<b>Chloride, SM4500Cl-B</b>		<b>mg/kg</b>		<b>Analyzed By: AP</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>6640</b>	16.0	08/09/2013	ND	400	100	400	3.92		

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/09/2013	ND	191	95.5	200	0.596		
<b>DRO &gt;C10-C28</b>	<b>41.1</b>	10.0	08/09/2013	ND	204	102	200	0.0598		

Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 126 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/31/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 5 @ 3' (H301840-15)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>560</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 5 @ 5' (H301840-16)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3920</b>	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 5 @ 9' (H301840-17)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>14200</b>	16.0	08/09/2013	ND	400	100	400	3.92	

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Received:	08/07/2013	Sampling Date:	08/01/2013
Reported:	08/11/2013	Sampling Type:	Soil
Project Name:	SAND DUNES 28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 6 @ 1' (H301840-18)**

BTEX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

Surrogate: Dibromofluoromethane 97.2 % 61.3-142

Surrogate: Toluene-d8 100 % 71.3-129

Surrogate: 4-Bromofluorobenzene 104 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>9800</b>	16.0	08/09/2013	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	08/09/2013	ND	191	95.5	200	0.596		
DRO >C10-C28	<10.0	10.0	08/09/2013	ND	204	102	200	0.0598		

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 135 % 63.6-154

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

 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 08/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 6 @ 3' (H301840-19)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9200	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 6 @ 5' (H301840-20)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5460	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 6 @ 7' (H301840-21)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/09/2013	ND	400	100	400	3.92	

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

 Received: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 08/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 7 @ 1' (H301840-22)**

BTEX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/09/2013	ND	2.28	114	2.00	1.60		
Toluene*	<0.050	0.050	08/09/2013	ND	2.19	110	2.00	2.07		
Ethylbenzene*	<0.050	0.050	08/09/2013	ND	2.12	106	2.00	1.60		
Total Xylenes*	<0.150	0.150	08/09/2013	ND	6.32	105	6.00	3.00		
Total BTEX	<0.300	0.300	08/09/2013	ND						

Surrogate: Dibromofluoromethane 97.0 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 104 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>3120</b>	16.0	08/09/2013	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	08/09/2013	ND	191	95.5	200	0.596		
DRO >C10-C28	<10.0	10.0	08/09/2013	ND	204	102	200	0.0598		

Surrogate: 1-Chlorooctane 110 % 65.2-140

Surrogate: 1-Chlorooctadecane 132 % 63.6-154

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: 08/07/2013  
 Reported: 08/11/2013  
 Project Name: SAND DUNES 28-1  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 08/01/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 7 @ 3' (H301840-23)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 7 @ 4' (H301840-24)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/09/2013	ND	400	100	400	3.92	

**Sample ID: SP 8 @ 2' (H301840-25)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1760	16.0	08/09/2013	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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**

1 of 2

**Company Name:** BBC International, Inc. **Project Manager:** Cliff Brunson  
**Address:** P. O. Box 805 **City:** Hobbs **State:** NM **Zip:** 88241  
**Phone #:** 575-397-6388 **Fax #:** 575-397-0397  
**Project #:** **Project Owner:** Oxy  
**Project Name:** Sand Dunes 28-1  
**Project Location:** Eddy County, NM  
**Sampler Name:** Jeff Ornelas

**P.O. #:** **Company:**  
**Attn:** **Address:**  
**City:** **State:** **Zip:**  
**Phone #:** **Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV		DATE	TIME	CL	TPH	BTEX
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL					
H301840	SP1 @ 1'	G	1								7/30/13	9:22 AM				
	SP1 @ 3'	G	1								7/30/13	10:01 AM				
	SP1 @ 5'	G	1								7/30/13	11:00 AM				
	SP2 @ 1'	G	1								7/30/13	11:45 AM				
	SP2 @ 3'	G	1								7/30/13	1:29 PM				
	SP2 @ 4'	G	1								7/30/13	1:44 PM				
	SP3 @ 1'	G	1								7/30/13	2:15 PM				
	SP3 @ 3'	G	1								7/31/13	8:55 AM				
	SP3 @ 5'	G	1								7/31/13	9:40 AM				
	SP3 @ 8'	G	1								7/31/13	11:00 AM				

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**Relinquished By:** Jeff Ornelas **Received By:** Jodi Henderson  
**Date:** 8/1/13 **Date:** 8/1/13  
**Time:** 5:00pm **Time:** 7:55pm

**Delivered By:** (Circle One) **Sampler - UPS - Bus - Other:** 5.22

**Sample Condition:** Cool / Impact  Yes  No

**CHECKED BY:** JPH

**REMARKS:**

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #54



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

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

2 of 2

Company Name: BCB International, Inc.		P.O. #:		ANALYSIS REQUEST																
Project Manager: Cliff Brunson		Company:																		
Address: P.O. Box 805		City:																		
City: Hobbs		State: NM		Zip: 88241																
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:																
Project #:		Project Owner: Oxy		City:																
Project Name: Sand Dunes 28-1		State:		Zip:																
Project Location: Eddy County, NM		Phone #:																		
Sampler Name: Jeff Ornelas		Fax #:																		
FOR LAB USE ONLY		PRESERV		SAMPLING																
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	DATE	TIME	CL	TPH	BTEX											
11301840				GROUNDWATER				WASTEWATER												
11	SP4 @ 1'			SOIL	7/31/13	11:53 AM														
12	SP4 @ 3'			OIL	7/31/13	1:29 PM														
13	SP4 @ 4'			SLUDGE	7/31/13	1:51 PM														
14	SP5 @ 1'			OTHER :	7/31/13	2:08 PM														
15	SP5 @ 3'			ACID/BASE:	7/31/13	2:29 PM														
16	SP5 @ 5'			ICE / COOL	7/31/13	3:13 PM														
17	SP5 @ 9'			OTHER :	8/1/13	9:37 AM														
18	SP6 @ 1'				8/1/13	10:23 AM														
19	SP6 @ 3'				8/1/13	11:00 AM														
20	SP6 @ 5'				8/1/13	11:44 AM														

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising under this contract or tort, shall be limited to the amount paid by the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>Jeff Ornelas</i>	Date: 8/1/13	Received By: <i>Walt</i>	Date: 8/1/13	Time: 5:00pm	Time: 8:11am
Delivered By: (Circle One) <i>Walt</i>	Sampler - UPS - Bus - Other: <i>5.22</i>	Sample Condition	CHECKED BY: <i>Walt</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <i>454</i>
REMARKS:					

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





July 10, 2014

Cliff Brunson  
BBC International, Inc.  
P.O. Box 805  
Hobbs, NM 88241

RE: SAND DUNES #28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/08/14 8:23.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

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:	07/08/2014	Sampling Date:	07/02/2014
Reported:	07/10/2014	Sampling Type:	Soil
Project Name:	SAND DUNES #28 #1 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	PURE GOLD RD		

**Sample ID: SB 1 @ 21' (H402059-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	07/10/2014	ND	400	100	400	3.92	

**Sample ID: SB 1 @ 24' (H402059-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>224</b>	16.0	07/10/2014	ND	400	100	400	3.92	

**Sample ID: SB 1 @ 26' (H402059-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>240</b>	16.0	07/10/2014	ND	400	100	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- 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



ARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

Phone #: 575-397-6388

Project #:

Project Name: Sage Jones 28

Project Location: Pine Golf Rd

Sampler Name: Pine Jones

FOR LAB USE ONLY

State: NM Zip: 88241

Fax #: 575-397-0397

Project Owner: OXY

City:

State: Zip:

Phone #: Fax #:

P.O. #: Company: OXY

Attn:

Address:

City:

State: Zip:

Phone #: Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	SAMPLING	DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:					
H40205A	SB 921	G	1			V						7/2/14	1008	V	
	SB 821	G	1			V						7/2/14	1014	V	
	SB 926	G	1			V						7/2/14	1028	V	

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Relinquished By: [Signature]

Received By: Scott Jensen

Date: 7/8/14

Date: 7/8/14

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Sample Condition Cool Intact Yes No

CHECKED BY: [Signature]

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



July 24, 2015

Cliff Brunson  
BBC International, Inc.  
P.O. Box 805  
Hobbs, NM 88241

RE: SAND DUNES 28 FED #1 SWD BATTERY ( 10/06/14 LEAK )

Enclosed are the results of analyses for samples received by the laboratory on 07/17/15 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

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:	07/17/2015	Sampling Date:	07/15/2015
Reported:	07/24/2015	Sampling Type:	Soil
Project Name:	SAND DUNES 28 FED #1 SWD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	EDDY COUNTY ,NM		

**Sample ID: SP1 @ SURFACE (H501848-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>26800</b>	16.0	07/22/2015	ND	416	104	400	0.00	

**Sample ID: SP1 @ 1' (H501848-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1140</b>	16.0	07/22/2015	ND	416	104	400	0.00	

**Sample ID: SP1 @ 2' (H501848-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>320</b>	16.0	07/22/2015	ND	416	104	400	0.00	

**Sample ID: SP2 @ SURFACE (H501848-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	07/22/2015	ND	416	104	400	0.00	

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:	07/17/2015	Sampling Date:	07/15/2015
Reported:	07/24/2015	Sampling Type:	Soil
Project Name:	SAND DUNES 28 FED #1 SWD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	EDDY COUNTY ,NM		

**Sample ID: SP3 @ SURFACE (H501848-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22000	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP3 @ 1' (H501848-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP3 @ 2' (H501848-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1640	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP3 @ 3' (H501848-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP3 @ 4' (H501848-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	07/22/2015	ND	432	108	400	0.00	

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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:	07/17/2015	Sampling Date:	07/15/2015
Reported:	07/24/2015	Sampling Type:	Soil
Project Name:	SAND DUNES 28 FED #1 SWD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	EDDY COUNTY ,NM		

**Sample ID: SP3 @ 5' (H501848-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>272</b>	16.0	07/22/2015	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- 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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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**CARDINAL LABORATORIES**

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

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

**BILL TO**

**ANALYSIS REQUEST**

Company Name: BBC International, Inc.  
 Project Manager: Cliff Brunson  
 Address: P.O. Box 805  
 City: Hobbs  
 State: NM Zip: 88241  
 Phone #: 575-397-6388 Fax #: 575-397-0397  
 Project #: Project Owner: Oxy  
 Project Name: Sand Dunes 28 Fed #1 SWD Battery (10/06/14 leak)  
 Project Location: Eddy County, NM  
 Sampler Name: Jeff Ornelas

P.O. #: \_\_\_\_\_ Company: \_\_\_\_\_  
 Attn: \_\_\_\_\_ Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME						
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :										
H501848			6								7/15/15	12:50 PM	✓						
	SP1 @ SURFACE		1	✓							7/15/15	1:11 PM	✓						
	SP1 @ 1'		1	✓							7/15/15	1:20 PM	✓						
	SP1 @ 2'		1	✓							7/15/15	1:46 PM	✓						
	SP2 @ SURFACE		1	✓							7/15/15	2:15 PM	✓						
	SP3 @ SURFACE		1	✓							7/15/15	2:30 PM	✓						
	SP3 @ 1'		1	✓							7/15/15	2:46 PM	✓						
	SP3 @ 2'		1	✓							7/15/15	2:50 PM	✓						
	SP3 @ 3'		1	✓							7/15/15	2:57 PM	✓						
	SP3 @ 4'		1	✓							7/15/15	3:09 PM	✓						
	SP3 @ 5'		1	✓							7/15/15		✓						

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Relinquished By: Jeff Ornelas  
 Date: 7/15/15  
 Time: 11:20  
 Received By: Judy Garcia  
 Date: 7/15/15  
 Time: 1:20

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other: UPS  
 Sample Condition  
 Cool  Intact   
 Yes  No   
 Checked By: JOS

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

#54

101



July 24, 2015

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SAND DUNES 28 FED #1 SWD BATTERY ( 10/23/14 LEAK )

Enclosed are the results of analyses for samples received by the laboratory on 07/17/15 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

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:	07/17/2015	Sampling Date:	07/15/2015
Reported:	07/24/2015	Sampling Type:	Soil
Project Name:	SAND DUNES 28 FED #1 SWD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP1 @ SURFACE (H501849-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6960	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP1 @ 1' (H501849-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP1 @ 2' (H501849-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP2 @ SURFACE (H501849-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	07/22/2015	ND	432	108	400	0.00	

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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:	07/17/2015	Sampling Date:	07/15/2015
Reported:	07/24/2015	Sampling Type:	Soil
Project Name:	SAND DUNES 28 FED #1 SWD BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Judy Garcia
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP2 @ 1' (H501849-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>432</b>	16.0	07/22/2015	ND	432	108	400	0.00	

**Sample ID: SP2 @ 2' (H501849-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	07/22/2015	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- 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



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

**BILL TO**

**ANALYSIS REQUEST**

Company Name: BBC International, Inc.  
Project Manager: Cliff Brunson  
Address: P. O. Box 805  
City: Hobbs  
Phone #: 575-397-6388  
Project #:

State: NM zip: 88241  
Fax #: 575-397-0397  
Project Owner: Oxy

Project Name: Sand Dunes 28 Fed #1 SWD Battery (10/23/14 leak)  
Project Location: Eddy County, NM  
Sampler Name: Jeff Ornelas

FOR LAB USE ONLY  
Lab I.D. **H501844**  
Sample I.D.

SP1 @ SURFACE  
SP1 @ 1'  
SP1 @ 2'  
SP2 @ SURFACE  
SP2 @ 1'  
SP2 @ 2'

(G)RAB OR (C)OMP.  
# CONTAINERS  
GROUNDWATER  
WASTEWATER  
SOIL  
OIL  
SLUDGE  
OTHER :  
ACID/BASE:  
ICE / COOL  
OTHER :

DATE  
TIME

7/15/15 9:19 AM  
7/15/15 9:38 AM  
7/15/15 10:10 AM  
7/15/15 10:30 AM  
7/15/15 10:41 AM  
7/15/15 11:07 AM

3/13/15  
13X

Received By: *Andy Garcia*

Date: 7/15/15  
Time: 11:20

Relinquished By: *Jeff Ornelas*

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other: *1.2c*

Sample Condition  
Cool  Impact   
Yes  No   
Yes  No

CHECKED BY: *JOE*

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

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476  
*#54*

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Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
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side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD	Facility Type	Salt Water Disposal
Surface Owner	BLM	Mineral Owner	
		Lease No.	API#30-015-26194

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E	1980'	South	1980'	East	Eddy

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

**NATURE OF RELEASE**

Type of Release	Oil and Produced water	Volume of Release	2 bbls oil / 370 bbls water	Volume Recovered	2 bbls oil / 340 bbls water
Source of Release	Tank overflow due to pump failure from short in alarm system	Date and Hour of Occurrence	09/08/2012 @ 8:00 am	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	James Amos- BLM, Mike Bratcher- OCD		
By Whom?	Chancey Summers	Date and Hour	9/10/2012 @ 9:55 am		
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.\*

A weather storm caused the alarm to short out and the pump to fail which made the tank overflow. 2 bbls of oil and 370 bbls of water leaked onto the ground. 2 bbls of oil and 340 bbls of water were recovered via vacuum truck.

Describe Area Affected and Cleanup Action Taken.\*

The area affected was on location approximately 100' x 100' and in the pasture approximately 3' x 200'. Remediation will be performed in accordance with an OCD and BLM approved remediation plan.

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: Chancey Summers	Approved by District Supervisor:		
Title: Sr. HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date:	Phone: (575)397-8216		

\* Attach Additional Sheets If Necessary

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1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
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Oil Conservation Division  
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side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD	Facility Type	Salt Water Disposal
Surface Owner	BLM	Mineral Owner	
		Lease No. API#30-015-26194	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E	1980'	South	1980'	East	Eddy

Latitude 32.27385°

Longitude 103.78036°

**NATURE OF RELEASE**

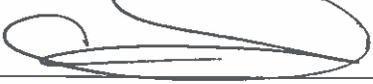
Type of Release	Produced water	Volume of Release	50 bbls	Volume Recovered	0 bbls
Source of Release	Leak on West Triplex pump	Date and Hour of Occurrence	10/01/2012 @ 8:00 am	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	James Amos- BLM, Mike Bratcher- OCD		
By Whom?	Chancey Summers	Date and Hour	10/22/2012 @ 10:55 am		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
A leak on the west triplex pump caused 50 bbls of water to leak onto the ground. 0 bbls were recovered. The pump was repaired.

Describe Area Affected and Cleanup Action Taken.\*  
The area affected was approximately 3' x 200'. Remediation will be performed in accordance with an OCD and BLM approved remediation plan.

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:	Chancey Summers	Approved by District Supervisor:	
Title:	Sr. HES Specialist	Approval Date:	Expiration Date:
E-mail Address:	Chancey_Summers@oxy.com	Conditions of Approval:	
Date:	10-25-12	Phone:	(575)397-8216
		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

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1625 N. French Dr., Hobbs, NM 88240  
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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.  
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**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD	Facility Type	SWD

Surface Owner	BLM	Mineral Owner		Lease No.	NM 40659
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E					Eddy

**Latitude** N 32.27641°      **Longitude** W 103.78047°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	650 bbls	Volume Recovered	590 bbls
Source of Release	Tank overflow due to broken triplex pump	Date and Hour of Occurrence	03/24/2013	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Jennifer Van Curen, James Amos-BLM and Mike Bratcher-OCD		
By Whom?	Chancey Summers	Date and Hour	03/25/2013 @ 9:08 am		
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.\*

A broken triplex pump caused a tank to overflow spilling 650 bbls of produced water onto the ground. 590 bbls of produced water were recovered via vacuum truck and the pump was repaired.

Describe Area Affected and Cleanup Action Taken.\*

A broken triplex pump caused a tank to overflow spilling 650 bbls of produced water onto the ground. 590 bbls of produced water were recovered via vacuum truck and the pump was repaired. Remediation will be performed in accordance with an approved plan from the NMOCD and the BLM.

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

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Chancey Summers	Approved by District Supervisor:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3-27-13	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary

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District II  
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Energy Minerals and Natural Resources

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Revised October 10, 2003

Submit 2 Copies to appropriate  
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**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD	Facility Type	SWD

Surface Owner	BLM	Mineral Owner		Lease No.	NM 40659
---------------	-----	---------------	--	-----------	----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E					Eddy

Latitude N 32.27641° Longitude W 103.78047°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	300 bbls	Volume Recovered	0 bbls
Source of Release	Power failure/ Tank overflow	Date and Hour of Occurrence	04/22/2013	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	James Amos-BLM and Mike Bratcher-OCD		
By Whom?	Chancey Summers	Date and Hour	04/22/2013 @ 11:03 am		
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.\*

A power failure at the site caused 300 bbls of produced water to leak onto the ground. No fluids were recovered and the power was restored to the site.

Describe Area Affected and Cleanup Action Taken.\*

The area affected is 400' x 100'. A power failure at the site caused 300 bbls of produced water to leak onto the ground. No fluids were recovered and the power was restored to the site. Remediation will be performed in accordance with an approved plan from the NMOCD and the BLM.

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

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Chancey Summers	Approved by District Supervisor:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 06/06/2013	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
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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**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	CJ Summers
Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD Battery	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		API No.	30-015-26194

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E					Eddy

Latitude N 32.27336° Longitude W 103.78031°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	67 bbls	Volume Recovered	0 bbls
Source of Release	Nipple on discharge header at the east injection pump was off	Date and Hour of Occurrence	10/06/2014	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher-NMOCD, Sol Hughes-BLM		
By Whom?	Kathy Purvis @ BBC International, Inc.	Date and Hour	10/07/2014 @ 11:46 am		
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.\*

The nipple on the discharge header at the east injection pump was off allowing 67 bbls of produced water to leak onto the ground. No fluids were recovered and the nipple was replaced.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 50' x 100' on location and 10' x 100' off location. Remediation will be completed in accordance with a remediation plan approved by NMOCD and the BLM.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Chancey Summers	Approved by District Supervisor:	
Title: HES Advisor	Approval Date:	Expiration Date:
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10-10-14 Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary

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

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Address	1017 W. Stanolind Rd, Hobbs, NM	Telephone No.	(575) 397-8216
Facility Name	Sand Dunes 28 Federal #1 SWD Battery	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		API No.	30-015-26194

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	23S	31E					Eddy

Latitude N 32.27336° Longitude W 103.78031°

**NATURE OF RELEASE**

Type of Release	Produced water	Volume of Release	22 bbls	Volume Recovered	0 bbls
Source of Release	Nipple on discharge header at the west injection pump was off	Date and Hour of Occurrence	10/23/2014	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson-NMOCD, Sol Hughes-BLM		
By Whom?	Kathy Purvis @ BBC International, Inc.	Date and Hour	10/24/2014 @ 8:39 am		
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.\*

The nipple on the discharge header at the west injection pump was off allowing 22 bbls of produced water to leak onto the ground. No fluids were recovered and the nipple was replaced.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 12' x 100' on location and 5' x 100' off location. Remediation will be completed in accordance with a remediation plan approved by NMOCD and the BLM.

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

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Chancey Summers	Approved by District Supervisor:		
Title: HES Advisor	Approval Date:	Expiration Date:	
E-mail Address: Chancey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 11-13-14	Phone: (575) 397-8216		

\* Attach Additional Sheets If Necessary