

**SITE INFORMATION**  
**Report Type: Work Plan Report**

**RECEIVED**  
AUG 13 2013  
**NMOGD ARTESIA**

<b>General Site Information:</b>			
<b>Site:</b>	SRO 103 State SWD		
<b>Company:</b>	COG Operating LLC		
<b>Section, Township, and Range:</b>	17	26S	28E
<b>Lease Number:</b>	API# 30-015-24462		
<b>County:</b>	Eddy County, NM		
<b>GPS:</b>	N 32 02.232	W 104 06.944	
<b>Surface Owner:</b>	State		
<b>Mineral Owner:</b>			
<b>Directions:</b>	In Malaga, from the intersection of Black River Village Road (CR720) and US Hwy 285, go South 109 miles, turn Right and go West on Whites City Road for 2.9 miles, turn South for 1.8 miles, then go East to location.		

<b>Release Data:</b>	
<b>Date Released:</b>	11/4/2011
<b>Type of Release:</b>	Oil, Produced water
<b>Source of Contamination:</b>	Pump failure at water tanks
<b>Fluid Released:</b>	2 bbls oil, 1000 bbls produced water
<b>Fluids Recovered:</b>	2 bbls oil, 910 bbls produced water

<b>Official Communication:</b>		
<b>Name:</b>	Pat Ellis	Cliff Brunson
<b>Company:</b>	COG Operating LLC	BBC International, Inc.
<b>Address:</b>	550 W. Texas Ave., Ste. 1300	1324 W. Marland
<b>PO Box:</b>		PO Box 805
<b>City, State, Zip Code:</b>	Midland, TX 79701	Hobbs, NM 88241
<b>Phone Number:</b>	(432) 686-3023	(575) 397-6388
<b>Fax:</b>	(432) 684-7137	(575) 397-0397
<b>Email:</b>	pellis@conchoresources.com	cbrunson@bbcinternational.com

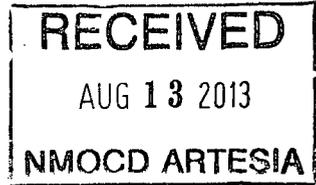
<b>Ranking Criteria:</b>		
<b>Depth to Groundwater:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<50 ft.	20	
50-99 ft.	10	<b>10</b>
>100 ft.	0	

<b>Well Head Protection:</b>	<b>Ranking Score</b>	<b>Site Data</b>
Water Source <1,000 ft., Private <200	20	
Water Source >1,000 ft., Private >200	<b>0</b>	<b>0</b>

<b>Surface Body of Water:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<200 ft.	20	
200 ft. - 1,000 ft.	10	
>1,000 ft.	<b>0</b>	<b>0</b>

<b>Total Ranking Score:</b>	<b>10</b>
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<b>Acceptable Soil RRAL (mg/kg)</b>		
<b>Benzene</b>	<b>Total BTEX</b>	<b>TPH</b>
<b>10</b>	<b>50</b>	<b>5000</b>



# **COG Operating LLC**

## **SRO 103 State SWD**

(Release Date: 11/04/2011)

**Unit M, Section 17, Township 26 South, Range 28 East  
Eddy County, New Mexico  
GPS: N 32 02.232 W 104 06.944**

**ENVIRONMENTAL SITE INVESTIGATION**

**CLOSURE REPORT**

PERFORMED BY:

**BBC INTERNATIONAL, INC.  
WORLD-WIDE ENVIRONMENTAL SPECIALISTS  
1324 W. MARLAND BLVD.  
P. O. BOX 805  
HOBBS, NEW MEXICO 88240  
(575) 397-6388 • FAX (575) 397-0397**

**June 24, 2013**

PREPARED FOR:

**MR. PAT ELLIS  
MANAGER, HSE  
COG OPERATING LLC  
FASKEN CENTER TOWER II  
550 WEST TEXAS AVENUE, SUITE 100  
MIDLAND, TEXAS 79701**

Mr. Mike Bratcher  
Compliance Officer  
Oil Conservation Division, District 2  
811 South First  
Artesia, NM 88210

Re: Closure plan for COG Operating LLC, SRO 103 State SWD,  
Unit M, Section 17, Township 26 South, Range 28 East, Eddy County, NM

## **1.0 SITE CHARACTERIZATION**

The subject site is located Southeast of Carlsbad, in Section 17, Township 26 South, and Range 28 East, Eddy County, NM. The GPS coordinates are N 32 02.232 W 104 06.944. The site consists of undeveloped rangeland and petroleum production facilities. On November 4, 2011, a bad sensor and faulty relay panel prevented the pump from working, in turn causing the produced water tank to overflow. The spill measured approximately 20' x 500' on the lease pad, in the pasture, and on the lease road. Approximately 1000 bbls of produced water and 2 bbls of oil were released with roughly 910 bbls of produced water and 2 bbls of oil being recovered via vacuum truck.

A diagram of the location including sample points can be reviewed in Appendix I of this report. The surface soil at this location is light brown to brown sand, red clay, and tan caliche. There is not a water source within 1,000 feet of this site. Based on the data from the Eddy County Groundwater Map, the depth to groundwater in Section 17, Township 26 South, and Range 28 East is less than or approximately 100 feet. The initial C-141 for this leak is located in Appendix III of this report.

## **2.0 SITE INVESTIGATION ACTIVITIES**

After initial spill response activities had been conducted by COG, BBC personnel conducted a delineation of the site on December 14<sup>th</sup> and 15<sup>th</sup> of 2011. Seven sample points were taken in the leak area at various depths. The samples were taken to Cardinal Laboratories for BTEX, TPH, and chloride analysis. The BTEX and TPH results for all seven sample points at a depth of 1 foot were non-detectable, except for the DRO result at SP6 at 1 foot; it was 222 mg/Kg. The chloride results for SP1 were 9,600 mg/Kg at 1 foot, 8,600 mg/Kg at 4 feet, 3,120 mg/Kg at 7 feet, 1,060 mg/Kg at 9 feet, and 622 mg/Kg at 12 feet. At SP2, the chloride results were 10,500 mg/Kg at 1 foot, 1,180 mg/Kg at 3 feet, and 176 mg/Kg at 5 feet. The chloride results for SP3 were 8,930 mg/Kg at 1 foot, 928 mg/Kg at 4 feet, and 144 mg/Kg at 6 feet. At SP4, the chloride results were 240 mg/Kg at 1 foot, 160 mg/Kg at 3 feet, and 224 mg/Kg at 5 feet. The chloride results for SP5 were 448 mg/Kg at 1 foot, 2,040 mg/Kg at 3 feet, and 768 mg/Kg at 5 feet. At SP6, the chloride results were 5,520 mg/Kg at 1 foot, and 6,320 mg/Kg at 2 feet. The chloride results for SP7 were 9,200 mg/Kg at 1 foot, 1,880 mg/Kg

at 3 feet, 448 mg/Kg at 5 feet, and 288 mg/Kg at 7 feet. Upon review of the laboratory results, it was determined that further sampling was warranted. Therefore, additional samples were taken at 14 feet and 16 feet at SP1, at 6 feet and 7 feet at SP5, and at 3 feet, 4 feet, and 5 feet at SP6. The samples were taken to Cardinal Laboratories for chloride analysis. The chloride results at SP1 were 464 mg/Kg at 14 feet and 272 mg/Kg at 16 feet. At SP5, the chloride results were 400 mg/Kg at 6 feet, and 144 mg/Kg at 7 feet. The chloride results for SP6 were 928 mg/Kg at 3 feet, 288 mg/Kg at 4 feet, and 48 mg/Kg at 5 feet. Once the excavation was complete, BBC personnel conducted confirmation sampling of the sidewalls and bottom. Twelve sidewall samples and three bottom samples were taken in the excavation area on June 5, 2013. The samples were taken to Cardinal Laboratories for analyzing. The chloride results were 368 mg/Kg at Sidewall 1, 592 mg/Kg at Sidewall 2, 176 mg/Kg at Sidewall 3, 240 mg/Kg at Sidewall 4, 176 mg/Kg at Sidewall 5, 208 mg/Kg at Sidewall 6, 352 mg/Kg at Sidewall 7, 416 mg/Kg at Sidewall 8, 256 mg/Kg at Sidewall 9, 48 mg/Kg at Sidewall 10, 32 mg/Kg at Sidewall 11, and 512 mg/Kg at Sidewall 12. The chloride results were 80 mg/Kg at Bottom 1, 64 mg/Kg at Bottom 2, and <16.0 at Bottom 3. The results of the analysis are located in Appendix II of this report. The sample points and confirmation sampling locations can be viewed on the site diagrams in Appendix I of this report.

### **3.0 CONCLUSION AND RECOMMENDATION**

On September 23, 2012, BBC personnel sent a proposed remediation plan to Mike Bratcher of NMOCD. Mike Bratcher approved the plan via email on October 17, 2012. Remediation correspondence is located in Appendix IV of this report.

In accordance with the approved remediation plan, excavation was completed by removing the impacted soil to a depth of 5 to 6 feet in the area of SP1, to a depth of 1 foot in the areas of SP2 and SP3, and to a depth of 3 feet in the areas of SP6 and SP7. A surface scrape was completed in the areas of SP4 and SP5. Confirmation sampling was conducted and reviewed prior to backfilling the site with clean soil. The lab results for the confirmation sampling can be viewed in Appendix II of this report.

Thus, BBC requests closure of the site since all remediation activities have been completed as described in the approved plan. Also, a final C-141 is located in Appendix III of this report.

# APPENDIX I

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## Site Diagram

*September 2012 and June 2013*

### **SRO 103 State SWD (11/04/2011)**

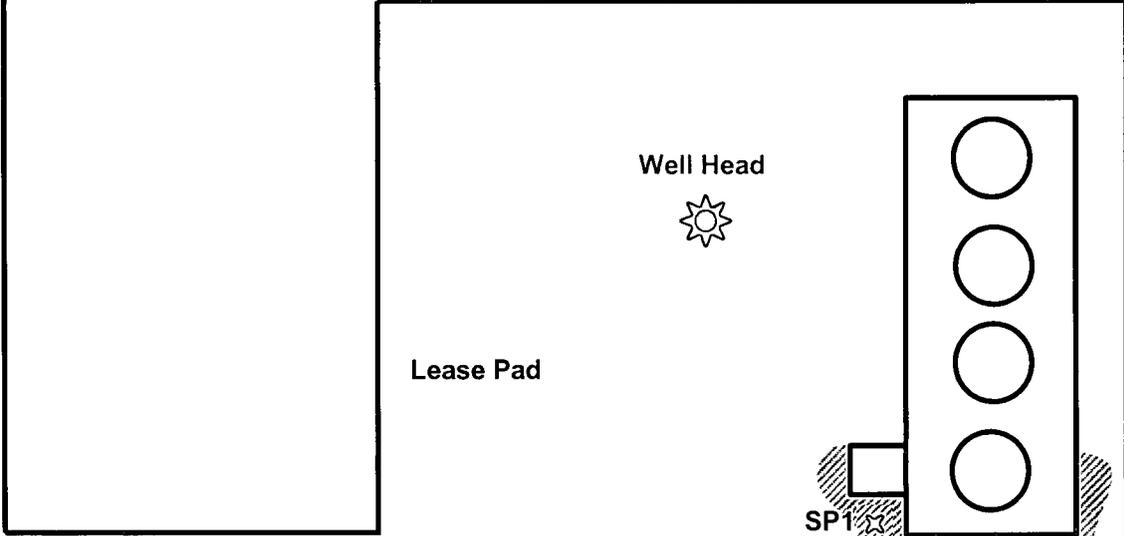
Unit M, Section 17, Township 26 South, Range 28 East  
Eddy County, NM  
GPS: N 32 02.232 W 104 06.944

**Prepared for:**  
COG Operating LLC  
Midland, Texas

**Prepared by:**  
BBC International, Inc.

COG

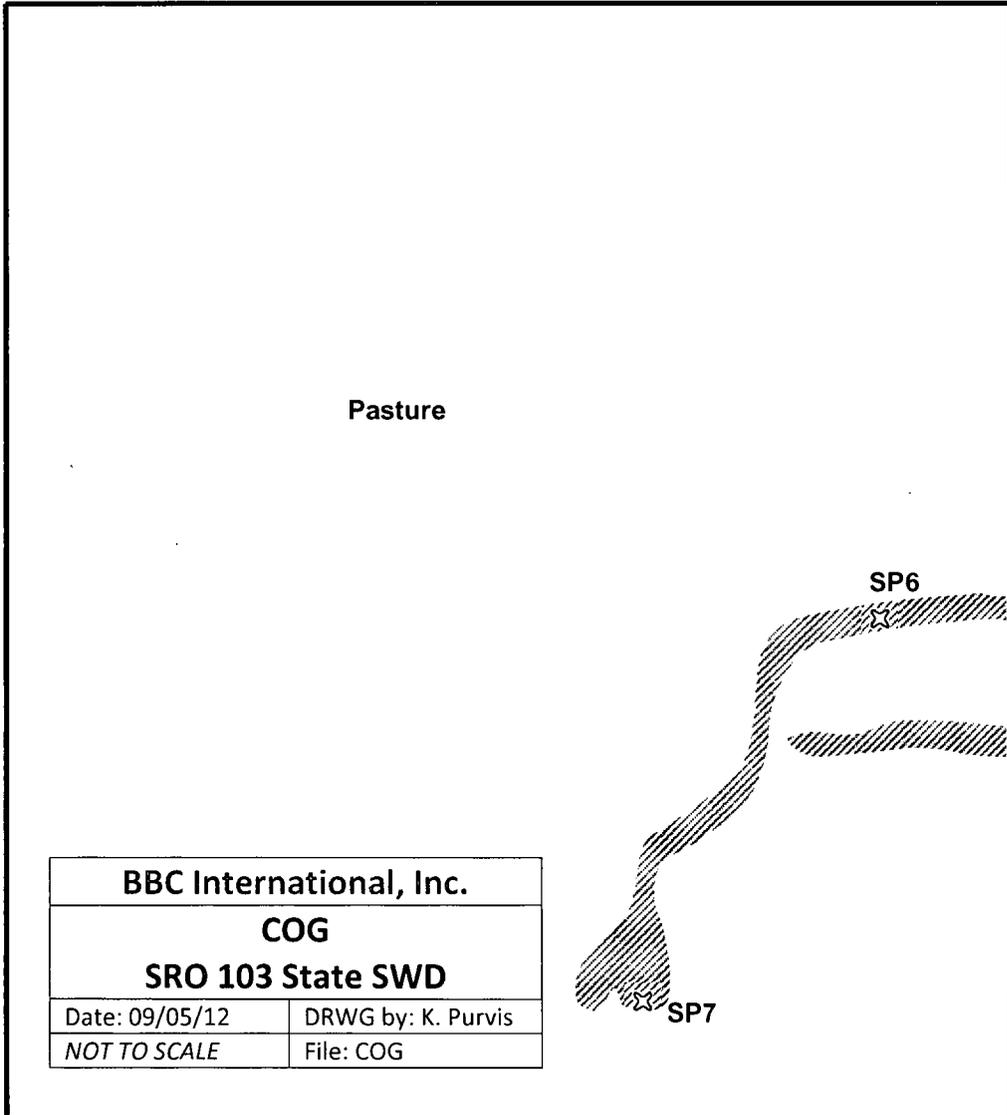
SRO 103 State SWD



Lease Pad

Well Head

SP1



Road

Pasture

SP2

SP3

SP4

SP6

SP5

SP7

504'



Road

BBC International, Inc.

COG

SRO 103 State SWD

Date: 09/05/12

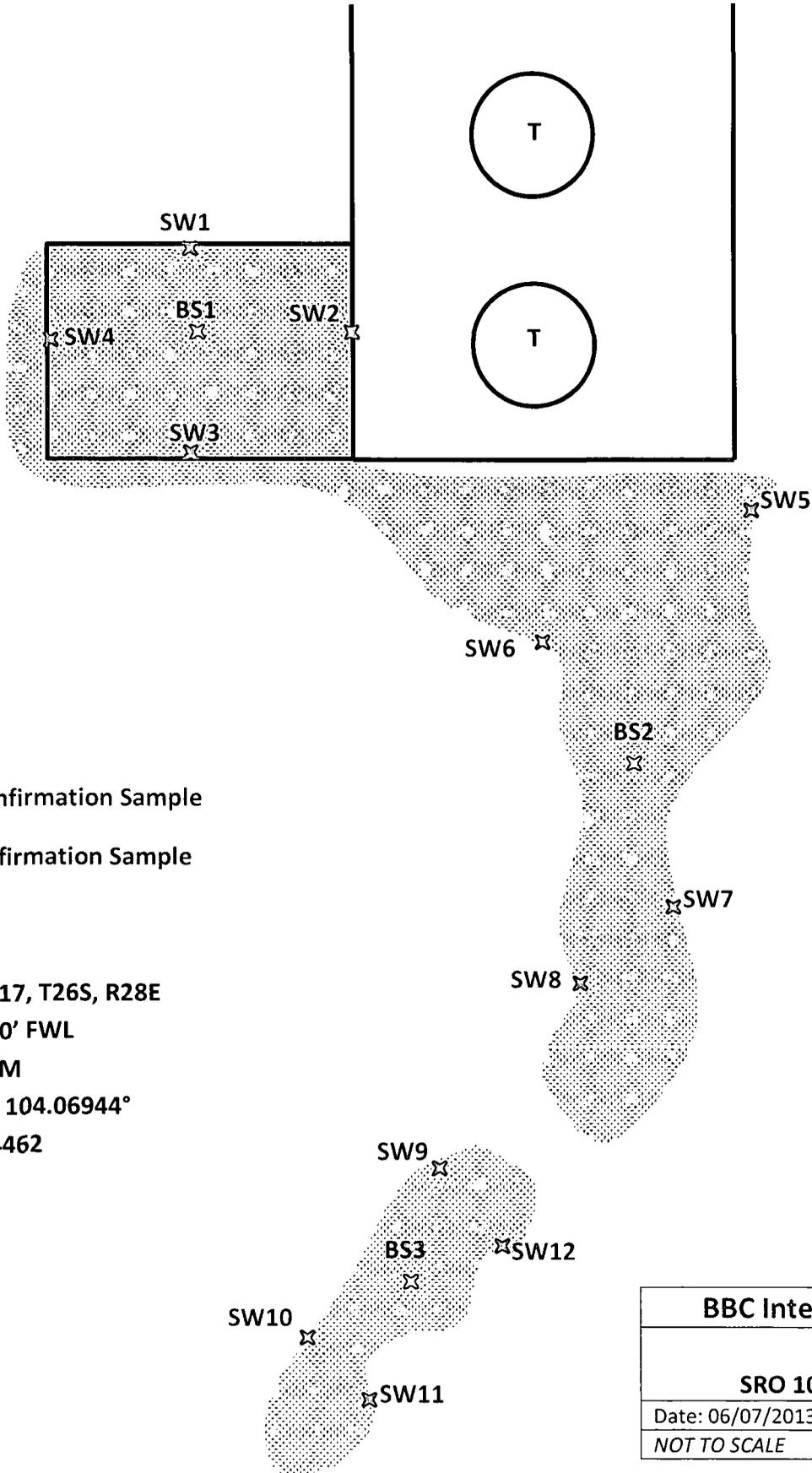
DRWG by: K. Purvis

NOT TO SCALE

File: COG



COG  
SRO 103 State SWD



- ✧ Sidewall Confirmation Sample
- ✧ Bottom Confirmation Sample

U/L M, Section 17, T26S, R28E  
660' FSL and 660' FWL  
Eddy County, NM  
N 32.02232° W 104.06944°  
API # 30-015-34462

BBC International, Inc.	
COG	
SRO 103 State SWD	
Date: 06/07/2013	DRWG by: K. Purvis
NOT TO SCALE	File: COG 2013



# Groundwater Plot

## COG SRO 103 State SWD

County  
Eddy

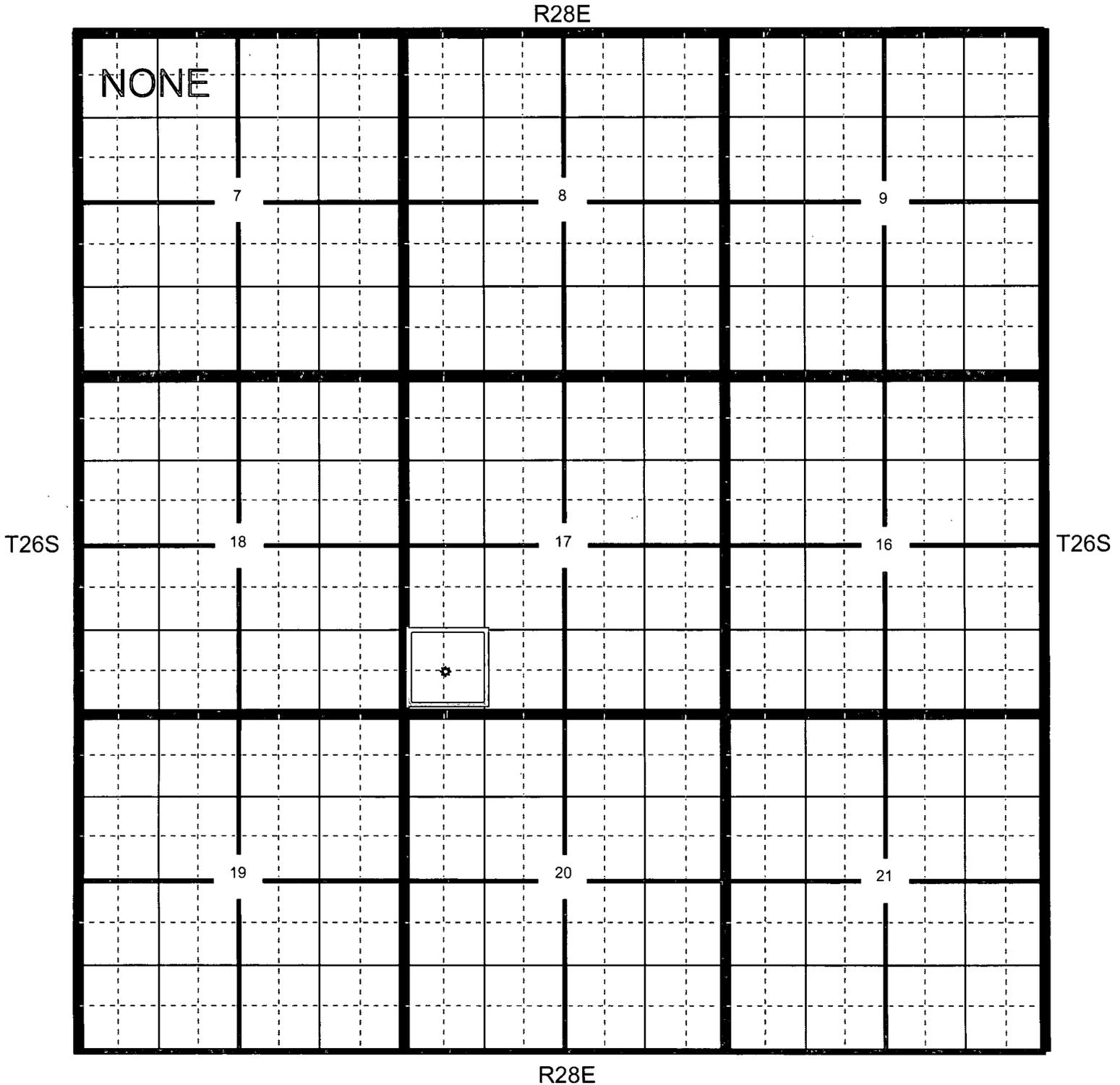
Unit Letter  
M

Section  
17

Township  
T26S

Range  
R28E

Trend Map <100'



★ Location

○ OCD

○ USGS

○ SEO

● All Databases

# COG SRO 103 State SWD

County Eddy      Unit Letter M      Section 17      Township T26S      Range R28E

Trend Map <100'

1

2

NW/NW NONE Unit Letter D	NE/NW Unit Letter C	NW/NE Unit Letter B	NE/NE Unit Letter A
SW/NW Unit Letter E	SE/NW Unit Letter F	SW/NE Unit Letter G	SE/NE Unit Letter H
NW/SW Unit Letter L	NE/SW Unit Letter K	NW/SE Unit Letter J	NE/SE Unit Letter I
SW/SW Unit Letter M	SE/SW Unit Letter N	SW/SE Unit Letter O	SE/SE Unit Letter P

3

4

# APPENDIX II

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## **Laboratory Analytical Results** *December 2011, March 2012, and June 2013*

### **SRO 103 State SWD (11/04/2011)**

Unit M, Section 17, Township 26 South, Range 28 East  
Eddy County, NM  
GPS: N 32 02.232 W 104 06.944

**Prepared for:**  
COG Operating LLC  
Midland, Texas

**Prepared by:**  
BBC International, Inc.

**Laboratory Analytical Results Summary**  
**COG, SRO 103 State SWD**

Analyte	Method	Sample Date	SP1 @ 1'	SP1 @ 4'	SP1 @ 7'	SP1 @ 9'	SP1 @ 12'	SP1 @ 14'	SP1 @ 16'
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B	12/14/11	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B	12/14/11	<0.150	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B	12/14/11	9600	8600	3120	1060	688	464	272
GRO	TPH 8015M	12/14/11	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M	12/14/11	<10.0	n/a	n/a	n/a	n/a	n/a	n/a

Analyte	Method	Sample Date	SP2 @ 1'	SP2 @ 3'	SP2 @ 5'
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Toluene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B	12/14/11	<0.150	n/a	n/a
Chloride	SM4500Cl-B	12/14/11	10500	1180	176
GRO	TPH 8015M	12/14/11	<10.0	n/a	n/a
DRO	TPH 8015M	12/14/11	<10.0	n/a	n/a

Analyte	Method	Sample Date	SP3 @ 1'	SP3 @ 4'	SP3 @ 6'
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Toluene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B	12/14/11	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B	12/14/11	<0.150	n/a	n/a
Chloride	SM4500Cl-B	12/14/11	8930	928	144
GRO	TPH 8015M	12/14/11	<10.0	n/a	n/a
DRO	TPH 8015M	12/14/11	<10.0	n/a	n/a

Analyte	Method	Sample Date	SP4 @ 1'	SP4 @ 3'	SP4 @ 5'
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a
Toluene	BTEX 8021B	12/15/11	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B	12/15/11	<0.150	n/a	n/a
Chloride	SM4500Cl-B	12/15/11	240	160	224
GRO	TPH 8015M	12/15/11	<10.0	n/a	n/a
DRO	TPH 8015M	12/15/11	<10.0	n/a	n/a

Analyte	Method	Sample Date	SP5 @ 1'	SP5 @ 3'	SP5 @ 5'	SP5 @ 6'	SP5 @ 7'
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B	12/15/11	<0.150	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B	12/15/11	448	2040	768	400	144
GRO	TPH 8015M	12/15/11	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M	12/15/11	<10.0	n/a	n/a	n/a	n/a

Analyte	Method	Sample Date	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 5'
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B	12/15/11	<0.150	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B	12/15/11	5520	6320	928	288	48
GRO	TPH 8015M	12/15/11	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M	12/15/11	222	n/a	n/a	n/a	n/a

Analyte	Method	Sample Date	SP7 @ 1'	SP7 @ 3'	SP7 @ 5'	SP7 @ 7'
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B	12/15/11	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B	12/15/11	<0.150	n/a	n/a	n/a
Chloride	SM4500Cl-B	12/15/11	9200	1880	448	288
GRO	TPH 8015M	12/15/11	<10.0	n/a	n/a	n/a
DRO	TPH 8015M	12/15/11	<10.0	n/a	n/a	n/a

**Laboratory Analytical Results Summary  
SRO 103 State SWD**

Analyte	Method	Sample Date	Sidewall 1
		6/5/13	mg/Kg
Chloride	SM4500CI-B		368

Analyte	Method	Sample Date	Sidewall 2
		6/5/13	mg/Kg
Chloride	SM4500CI-B		592

Analyte	Method	Sample Date	Sidewall 3
		6/5/13	mg/Kg
Chloride	SM4500CI-B		176

Analyte	Method	Sample Date	Sidewall 4
		6/5/13	mg/Kg
Chloride	SM4500CI-B		240

Analyte	Method	Sample Date	Sidewall 5
		6/5/13	mg/Kg
Chloride	SM4500CI-B		176

Analyte	Method	Sample Date	Sidewall 6
		6/5/13	mg/Kg
Chloride	SM4500CI-B		208

Analyte	Method	Sample Date	Sidewall 7
		6/5/13	mg/Kg
Chloride	SM4500CI-B		352

Analyte	Method	Sample Date	Sidewall 8
		6/5/13	mg/Kg
Chloride	SM4500CI-B		416

Analyte	Method	Sample Date	Sidewall 9
		6/5/13	mg/Kg
Chloride	SM4500CI-B		256

Analyte	Method	Sample Date	Sidewall 10
		6/5/13	mg/Kg
Chloride	SM4500CI-B		48

Analyte	Method	Sample Date	Sidewall 11
		6/5/13	mg/Kg
Chloride	SM4500CI-B		32

Analyte	Method	Sample Date	Sidewall 12
		6/5/13	mg/Kg
Chloride	SM4500CI-B		512

Analyte	Method	Sample Date	Bottom 1
		6/5/13	mg/Kg
Chloride	SM4500CI-B		80

Analyte	Method	Sample Date	Bottom 2
		6/5/13	mg/Kg
Chloride	SM4500CI-B		64

Analyte	Method	Sample Date	Bottom 3
		6/5/13	mg/Kg
Chloride	SM4500CI-B		<16.0

December 21, 2011

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SRO 103 ST SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/16/11 14:45.

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:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 1 @ 1 FT (H102721-01)**

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	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

*Surrogate: 4-Bromofluorobenzene (PIL) 108 % 64.4-134*

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>9600</b>	16.0	12/20/2011	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	12/19/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/19/2011	ND	225	113	200	0.0573		

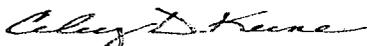
*Surrogate: 1-Chlorooctane 99.5 % 55.5-154*
*Surrogate: 1-Chlorooctadecane 115 % 57.6-158*
**Sample ID: SP 1 @ 4 FT (H102721-02)**

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>8600</b>	16.0	12/20/2011	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 1 @ 7 FT (H102721-03)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	12/20/2011	ND	432	108	400	0.00	

**Sample ID: SP 1 @ 9 FT (H102721-04)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	12/20/2011	ND	432	108	400	0.00	

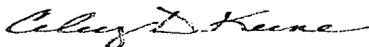
**Sample ID: SP 1 @ 12 FT (H102721-05)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	12/20/2011	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:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 2 @ 1 FT (H102721-06)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10500	16.0	12/20/2011	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	12/19/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/19/2011	ND	225	113	200	0.0573		

Surrogate: 1-Chlorooctane 101 % 55.5-154

Surrogate: 1-Chlorooctadecane 114 % 57.6-158

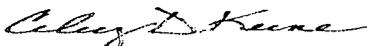
**Sample ID: SP 2 @ 3 FT (H102721-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1180	16.0	12/20/2011	ND	432	108	400	0.00		

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 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 2 @ 5 FT (H102721-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	12/20/2011	ND	432	108	400	0.00		

**Sample ID: SP 3 @ 1 FT (H102721-09)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8930	16.0	12/20/2011	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	12/19/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/19/2011	ND	225	113	200	0.0573		

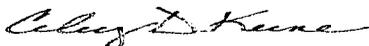
Surrogate: 1-Chlorooctane 99.5 % 55.5-154

Surrogate: 1-Chlorooctadecane 111 % 57.6-158

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Celey D. Keene, Lab Director/Quality Manager

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 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 3 @ 4 FT (H102721-10)**

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>928</b>	16.0	12/20/2011	ND	432	108	400	0.00	

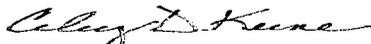
**Sample ID: SP 3 @ 6 FT (H102721-11)**

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>144</b>	16.0	12/20/2011	ND	416	104	400	3.77	

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Received:	12/16/2011	Sampling Date:	12/15/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 4 @ 1 FT (H102721-12)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	12/20/2011	ND	416	104	400	3.77		

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	12/19/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/19/2011	ND	225	113	200	0.0573		

Surrogate: 1-Chlorooctane 99.9 % 55.5-154

Surrogate: 1-Chlorooctadecane 113 % 57.6-158

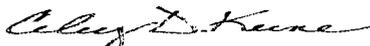
**Sample ID: SP 4 @ 3 FT (H102721-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	12/20/2011	ND	416	104	400	3.77		

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 Fax To: (505) 397-0397

Received:	12/16/2011	Sampling Date:	12/15/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 4 @ 5 FT (H102721-14)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	12/20/2011	ND	416	104	400	3.77		

**Sample ID: SP 5 @ 1 FT (H102721-15)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

Surrogate: 4-Bromofluorobenzene (PII) 109 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	12/20/2011	ND	416	104	400	3.77		

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	12/19/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/19/2011	ND	225	113	200	0.0573		

Surrogate: 1-Chlorooctane 87.5 % 55.5-154

Surrogate: 1-Chlorooctadecane 91.7 % 57.6-158

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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:	12/16/2011	Sampling Date:	12/15/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 5 @ 3 FT (H102721-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2040	16.0	12/20/2011	ND	416	104	400	3.77		

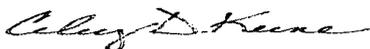
**Sample ID: SP 5 @ 5 FT (H102721-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	16.0	12/20/2011	ND	416	104	400	3.77		

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 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (505) 397-0397

Received:	12/16/2011	Sampling Date:	12/14/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 6 @ 1 FT (H102721-18)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

*Surrogate: 4-Bromofluorobenzene (PIL) 112 % 64.4-134*

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>5520</b>	16.0	12/20/2011	ND	416	104	400	3.77		

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	12/19/2011	ND	217	109	200	0.138		
<b>DRO &gt;C10-C28</b>	<b>222</b>	10.0	12/19/2011	ND	225	113	200	0.0573		

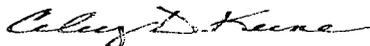
*Surrogate: 1-Chlorooctane 98.9 % 55.5-154*
*Surrogate: 1-Chlorooctadecane 115 % 57.6-158*
**Sample ID: SP 6 @ 2 FT (H102721-19)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>6320</b>	16.0	12/20/2011	ND	416	104	400	3.77		

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 Fax To: (505) 397-0397

Received:	12/16/2011	Sampling Date:	12/15/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 7 @ 1 FT (H102721-20)**

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	12/19/2011	ND	2.06	103	2.00	0.480		
Toluene*	<0.050	0.050	12/19/2011	ND	1.98	99.0	2.00	1.07		
Ethylbenzene*	<0.050	0.050	12/19/2011	ND	2.25	112	2.00	1.35		
Total Xylenes*	<0.150	0.150	12/19/2011	ND	6.48	108	6.00	1.15		

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>9200</b>	16.0	12/20/2011	ND	416	104	400	3.77		

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	12/20/2011	ND	217	109	200	0.138		
DRO >C10-C28	<10.0	10.0	12/20/2011	ND	225	113	200	0.0573		

Surrogate: 1-Chlorooctane 94.3 % 55.5-154

Surrogate: 1-Chlorooctadecane 108 % 57.6-158

**Sample ID: SP 7 @ 3 FT (H102721-21)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>1880</b>	16.0	12/20/2011	ND	416	104	400	3.77		

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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:	12/16/2011	Sampling Date:	12/15/2011
Reported:	12/21/2011	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 7 @ 5 FT (H102721-22)**

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>448</b>	16.0	12/20/2011	ND	416	104	400	3.77	

**Sample ID: SP 7 @ 7 FT (H102721-23)**

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>288</b>	16.0	12/20/2011	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

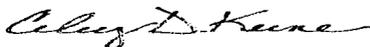
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported 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: <i>Concho</i>		City:													
Project Name: <i>SRO 103 ST SWD</i>		State: Zip:													
Project Location: <i>Malaga, NM</i>		Phone #:													
Sampler Name: <i>JORDAN WOODFIN</i>		Fax #:													

FOR LAB USE ONLY		G/RAB OR (COMP)	# CONTAINERS	MATRIX					PRESEV	SAMPLING		DATE	TIME	CI	TPH ECL 5.0M	BTEX
Lab I.D.	Sample I.D.			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL					
#102721																
11	SP 3 @ 6ft	9	1		X				X			12-15-11	909	X		
12	SP 4 @ 1ft	9	1		X				X			"	900	X	X	
13	SP 4 @ 3ft	9	1		X				X			"	1007	X	X	
14	SP 4 @ 5ft	9	1		X				X			"	1057	X	X	
15	SP 5 @ 1ft	9	1		X				X			"	1119	X	X	
16	SP 5 @ 3ft	9	1		X				X			"	1139	X	X	
17	SP 5 @ 5ft	9	1		X				X			"	1210	X		
18	SP 6 @ 1ft	9	1		X				X			"	120	X	X	
19	SP 6 @ 2ft	9	1		X				X			"	148	X		
20	SP 7 @ 1ft	9	1		X				X			"	212	X	X	

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Relinquished By: <i>Jordan Woodfin</i>	Date: <i>12/16/11</i>	Received By: <i>Adri Hanson</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: <i>8:45</i>			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: <i>EMAIL ACC</i>
Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:	
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>AW</i>	

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

#26

2 of 3



March 29, 2012

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SRO 103 ST SWD

Enclosed are the results of analyses for samples received by the laboratory on 03/27/12 9:06.

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:	03/27/2012	Sampling Date:	03/26/2012
Reported:	03/29/2012	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 1 @ 14 FT (H200727-01)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	03/27/2012	ND	416	104	400	0.00		

**Sample ID: SP 1 @ 16 FT (H200727-02)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/27/2012	ND	416	104	400	0.00		

**Sample ID: SP 5 @ 6 FT (H200727-03)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	03/27/2012	ND	416	104	400	0.00		

**Sample ID: SP 5 @ 7 FT (H200727-04)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/27/2012	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:	03/27/2012	Sampling Date:	03/26/2012
Reported:	03/29/2012	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALAGA, NM		

**Sample ID: SP 6 @ 3 FT (H200727-05)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	928	16.0	03/27/2012	ND	416	104	400	0.00		

**Sample ID: SP 6 @ 4 FT (H200727-06)**

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/27/2012	ND	416	104	400	0.00		

**Sample ID: SP 6 @ 5 FT (H200727-07)**

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	03/27/2012	ND	416	104	400	0.00		

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\* = 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



June 06, 2013

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

RE: SRO 103 ST SWD

Enclosed are the results of analyses for samples received by the laboratory on 06/05/13 17:05.

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:	06/05/2013	Sampling Date:	06/05/2013
Reported:	06/06/2013	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ORLA		

**Sample ID: SW 1 (H301315-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	06/06/2013	ND	416	104	400	3.77		

**Sample ID: SW 2 (H301315-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	06/06/2013	ND	416	104	400	3.77		

**Sample ID: SW 3 (H301315-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/06/2013	ND	416	104	400	3.77		

**Sample ID: SW 4 (H301315-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	06/06/2013	ND	432	108	400	3.77		

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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: 06/05/2013  
 Reported: 06/06/2013  
 Project Name: SRO 103 ST SWD  
 Project Number: NONE GIVEN  
 Project Location: ORLA

 Sampling Date: 06/05/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: SW 5 (H301315-05)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: SW 6 (H301315-06)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: SW 7 (H301315-07)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: SW 8 (H301315-08)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	06/06/2013	ND	432	108	400	3.77		

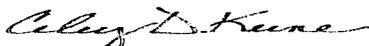
**Sample ID: SW 9 (H301315-09)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/06/2013	ND	432	108	400	3.77		

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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:	06/05/2013	Sampling Date:	06/05/2013
Reported:	06/06/2013	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ORLA		

**Sample ID: SW 10 (H301315-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: SW 11 (H301315-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: SW 12 (H301315-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: BS 1 (H301315-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/06/2013	ND	432	108	400	3.77		

**Sample ID: BS 2 (H301315-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/06/2013	ND	432	108	400	3.77		

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:	06/05/2013	Sampling Date:	06/05/2013
Reported:	06/06/2013	Sampling Type:	Soil
Project Name:	SRO 103 ST SWD	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ORLA		

**Sample ID: BS 3 (H301315-15)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/06/2013	ND	432	108	400	3.77		

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**

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: COG		City:													
Project Name: SRO 103 St Swd		State:													
Project Location: Or la		Phone #:													
Sampler Name: Gary Ray		Fax #:													

FOR LAB USE ONLY		GIRAB OR (COMP. #) CONTAINERS	MATRIX					PRESERV.		SAMPLING		CL
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	
H301315												
1	SW 2	6			X				X		6-5-13	10:35
2	SW 2	6			X				X		6-5-13	10:40
3	SW 3	6			X				X		6-5-13	10:52
4	SW 4	6			X				X		6-5-13	10:07
5	SW 5	6			X				X		6-5-13	11:20
6	SW 6	6			X				X		6-5-13	11:32
7	SW 7	6			X				X		6-5-13	11:40
8	SW 8	6			X				X		6-5-13	11:48
9	SW 9	6			X				X		6-5-13	12:00
10	SW 10	6			X				X		6-5-13	1:10

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:	Date: 6-5-13 Time: 5:05	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CHECKED BY:	REMARKS:  RUST!!	

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

#54



# APPENDIX III

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**C-141**

*November 2011 and June 2013*

## **SRO 103 State SWD (11/04/2011)**

Unit M, Section 17, Township 26 South, Range 28 East  
Eddy County, NM  
GPS: N 32 02.232 W 104 06.944

**Prepared for:**  
COG Operating LLC  
Midland, Texas

**Prepared by:**  
BBC International, Inc.

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	COG Operating LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	SRO 103 State SWD	Facility Type	SWD Facility

Surface Owner State	Mineral Owner	Lease No. (API# 30-015-24462)
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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
M	17	26S	28E					Eddy

Latitude 32 02.232 Longitude 104 06.944

**NATURE OF RELEASE**

Type of Release	Oil, Produced water	Volume of Release	2 bbls oil, 1000 bbls produced water	Volume Recovered	2 bbls oil, 1000 bbls produced water
Source of Release	Water tanks	Date and Hour of Occurrence	11/04/2011	Date and Hour of Discovery	11/04/2011 7:00 a.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher-OCD			
By Whom?	Josh Russo	Date and Hour 11/07/2011 9:16 a.m.			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

**RECEIVED**  
 AUG 13 2013  
 NMOCD ARTESIA

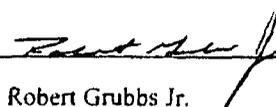
If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
 SWD tanks ran over due to the pump being down. The electrician reported a bad sensor on the water tanks and a faulty relay panel. All problems have been corrected.

Describe Area Affected and Cleanup Action Taken.\*  
 Initially 1000 bbls of produced water and 2 bbls of oil were released from the SWD tanks at the SRO 103 State SWD. We were able to recover 2 bbls of oil and 910 bbls of produced water via vacuum trucks. Most of the release was contained inside the berm walls of the facility. This facility is lined with a 40 mil liner. Some of the release spilled over the lined berm walls and streamed into the pasture. Remediation was completed in accordance with the remediation plan approved by Mike Bratcher of NMOCD via email on 10/17/2012.

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.

**OIL CONSERVATION DIVISION**

Signature: 	Approved by District Supervisor:	
Printed Name: Robert Grubbs Jr.	Approval Date:	Expiration Date:
Title: Sr. Environmental Coordinator	Conditions of Approval:	
E-mail Address: rgrubbs@concho.com	Attached <input type="checkbox"/>	
Date: 06-19-2013	Phone: 432-661-6601	

\* 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

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	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	SRO 103 State SWD	Facility Type	SWD Facility

Surface Owner	State	Mineral Owner		Lease No. (API#)	30-015-24462
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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
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Latitude 32 02.232 Longitude 104 06.944

**NATURE OF RELEASE**

Type of Release	Oil, Produced water	Volume of Release	2bbls Oil, 1000bbls Produced water	Volume Recovered	2bbls Oil, 910bbls Produced water
Source of Release	Water tanks	Date and Hour of Occurrence	11/04/2011	Date and Hour of Discovery	11/04/2011 7:00 a.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher OGD		
By Whom?	Josh Russo	Date and Hour	11/07/2011 9:16 a.m.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>RECEIVED</b>  AUG 13 2013  NMOCD ARTESIA </div>	
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.*					

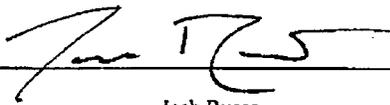
**Describe Cause of Problem and Remedial Action Taken.\***

SWD tanks ran over due to the pump being down. The electrician reported a bad sensor on the water tanks and a faulty relay panel. All problems have been corrected.

**Describe Area Affected and Cleanup Action Taken.\***

Initially 1000bbls of produced water and 2bbls of oil were released from the SWD tanks at the SRO 103 State SWD and we were able to recover 2bbls of oil and 910bbls of produced water with vacuum trucks. Most of the release was contained inside the berm walls of the facility. This facility is lined with a 40mil plastic liner. Some of the release spilled over the lined berm walls and streamed into the pasture. BBC will sample the spill site area in the pasture to delineate any possible contamination from the release.

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:	Josh Russo	Approved by District Supervisor:	
Title:	HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address:	jrusso@conchoresources.com	Conditions of Approval:	
Date:	11/14/2011	Phone:	432-212-2399
			Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

# APPENDIX IV

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## Correspondence

*October 2012*

### **SRO 103 State SWD (11/04/2011)**

Unit M, Section 17, Township 26 South, Range 28 East  
Eddy County, NM  
GPS: N 32 02.232 W 104 06.944

**Prepared for:**  
COG Operating LLC  
Midland, Texas

**Prepared by:**  
BBC International, Inc.

## Kathy Purvis

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**From:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>  
**Sent:** Wednesday, October 17, 2012 2:52 PM  
**To:** Cliff P. Brunson  
**Cc:** Josh Russo; Ken Swinney; Kathy Purvis; Jennifer Gilkey  
**Subject:** RE: Concho Operating - SRO 103 State SWD

Reference: COG SRO SWD 103 \* 30-015-24462 \* M-17-26s-28e \* Eddy County, New Mexico  
OCD Tracking Number: 2RP-961 \* Date of Release: 11/4/11

Cliff,

The proposal for remediation of the above referenced release is approved. It is OCD's understanding that the areas of SP2 & SP3 are being referenced in your email request.

Notify OCD 48 hours prior to commencement of remedial activities.

Notify OCD 48 prior to obtaining samples when the analyses are to be presented to OCD.

Confirmation samples from excavation bottoms and sidewalls are to be obtained prior to backfill.

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

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

Mike Bratcher  
NMOCD District 2  
811 S. First Street  
Artesia, NM 88210  
O: 575-748-1283 X108  
C: 575-626-0857  
F: 575-748-9720

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**From:** Cliff P. Brunson [<mailto:cbrunson@bbcinternational.com>]  
**Sent:** Sunday, September 23, 2012 7:52 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** Josh Russo; Ken Swinney; Kathy Purvis; Jennifer Gilkey  
**Subject:** Concho Operating - SRO 103 State SWD

Mike,

This e-mail is to confirm our discussion on September 5, 2012 concerning the remediation plan for the release that occurred at the COG SRO 103 State SWD. As agreed, COG will excavate impacted soil in the area of SP1 to a depth of 5 to 6 feet, in the areas of SP3 and SP3 to a depth of 1 foot, in the areas of SP4 and SP5 it will just be scraped in the near surface, and in the areas of SP6 and SP7 to a depth of 3 feet. The excavations will then be backfilled with clean soil.

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

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

Thanks, Cliff

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

\*\*\*\*\*

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