Closure Report

RECEIVED	7
APR 2 8 2014	
NMOCD ARTESIA	L

	Site Description
Site Name:	MC State #001
Company:	COG Operating LLC
Legal Description:	U/L J, Section 23, T17S, R28E
County:	Eddy County, NM
GPS Coordinates:	N 32.81977° W 104.14622°

	Release Data
Date of Release:	11/09/2013
Type of Release:	Produced water
Source of Release:	Main produced water line
Volume of Release:	8 bbls
Volume Recovered:	2 bbls

Remediation Specifications								
Remediation Parameters:	Excavate across the entire leak site to a depth of 1 foot. Then, backfill the site with clean soil.							
Remediation Activities:	04/02/2014 and 04/07/2014							

Plan Sent to OCD:	02/25/2014	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	Verbal	Verbal approval from Mike Bratcher
Plan Sent to BLM:	n/a	n/a
BLM Approval of Plan:	n/a	n/a

	Supporting Documentation
Initial C-141	Signed 11/14/2014
Final C-141	Signed 04/22/2014
Site Diagram	December 2013
Groundwater Plot	100'
TOPO Maps	December 2013
Lab Summary	11/27/2013
Lab Analysis	11/27/2013
Correspondence	Request and approval of remediation plan via email

Request for Closure

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

Cliff Brunson, President of BBC International Inc.

04/24/2014

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

Was a Watercourse Reached?

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

☐ Yes ☒ No

A 45 connection from the water pump failed. Replacer the 45 connection to prevent a reoccurrence.

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Revised October 10, 2003

Form C-141

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

RECEIVED

APR 28 2014

NMOCD ARTESIA

Release Notification and Corrective Action **OPERATOR** Final Report Initial Report Name of Company COG OPERATING LLC Contact Robert McNeill Address 600 West Illinois Avenue, Midland, TX 79701 432-230-0077 Telephone No. MC State #001 **Facility Name** Facility Type Tank Battery Surface Owner State Mineral Owner Lease No. (API#) 30-015-25118 LOCATION OF RELEASE Unit Letter Township Feet from the North/South Line East/West Line Section Range Feet from the County 1 23 175 28Ē Eddy Latitude 32.81976 Longitude 104.14595 **NATURE OF RELEASE** Type of Release Produced water Volume of Release 8bbls Volume Recovered 2bbls Source of Release Main produced water line Date and Hour of Occurrence Date and Hour of Discovery 11-09-2013 07:00am 11-09-2013 Was Immediate Notice Given? If YES, To Whom? ☐ Yes ☒ No ☒ Not Required Date and Hour By Whom?

Describe Area Affected and Cleanup Action Taken.*

Initially an estimated 8bbls were released due to a faulty 45 connection from the water pump. We were able to recover 2bbls with a vacuum truck. All free fluids have been recovered. The spill was located inside the facility walls and the adjacent pasture. BBC will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD for approval prior to any significant remediation work.

If YES, Volume Impacting the Watercourse.

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. Title: Senior Environmental Coordinator Approval Date: **Expiration Date:** E-mail Address: rgrubbs@concho.com Conditions of Approval: Attached 11-14-2013 432-661-6601 Phone:

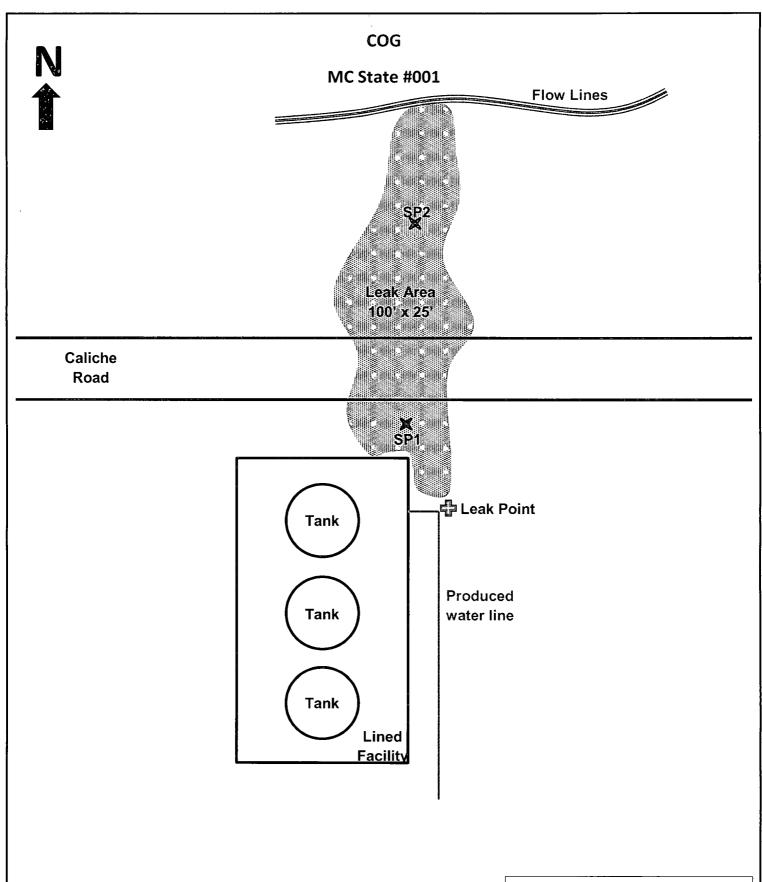
^{*} Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Submit I Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notifi	catio	n and Co	orrective A	ction				
						OPERA'				al Report	\boxtimes	Final Repo
Name of C		COG OPER				Contact	Robert M					
			ue, Midla	and, TX 79701		Telephone l						
Facility Na	me MC	State #001				Facility Type Tank Battery						
Surface Ov	mer Stat	e		Mineral C	Owner				API No	. 30-01	5-2511	8
	_			LOCA	TIO	N OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North	South Line	Feet from the	Enst/W	est Line	County		
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			I.	atitude <u>N 32.8</u>	1976°	Longitu	de <u>W 104.145</u> 9	95°				
				NAT	URE	OF RELI	EASE					
Type of Rele	ase Produ	ced water		,		Volume of		5	Volume R	ecovered	2 bbls	
Source of Re	lease Mai	n produced w	ater line			Date and H	our of Occurrence			Inur of Dis 3 @ 07:00		
Was Immedi	nte Notice C		Yes 🛛	No 🗵 Not Re	equired	If YES, To	Whom?					
By Whom?						Date and H						
Was a Water	ourse Reac		Yes 🔯	No		If YES, Vo	lume Impacting t	he Water	course.			
a Watercou	· · · · · · · · · · · · · · · · · · ·											
Describe Cau A 45 connecti				Taken.*	nection	lo prevent rec	occurrence.		·····	NMC	APR ;	EIVE 2 8 2014 APTE
Describe Arca	Affected a	nd Cleanup A	tion Take	n.*								
free fluids have the remediation I hereby certifications all public health of	y that the in operators are the environ	vered. The spoved by Mike formation gives required to ment. The a	Bratcher of Bratcher of an above is report and acceptance	s true and comple l/or file certain re of a C-141 repor	ete to the lease no t by the	alls and the action of the best of my kiffications and NMOCD man	tjacent pasture. I nowledge and un I perform correct ked as "Final Re	Remediat derstand ive action port" doc	that pursu is for release s not relie	ant to NMC ses which r	accorda OCD rul nay enc	es and langer inbility
should their of	perations had nent. In add	ve failed to ad dition, NMOC	equately is D accepts	nvestigate and rea ince of a C-141 re	ncdiate	contamination	n that pose a thre	ut to grou	nd water.	surface wat	er, hum	an health
			4				OIL CONS	ERVA	TION I	OIVISIO	N	
Signature:	Tela	+ d.	-/-									
rinted Name:	Robert C	rubbs Jr.			A	pproved by E	nvironmental Sp	ecialist:				····
itle: Senio	Environme	ntal Coordina	lor		A	proval Date:		Ex	piration D	ite:		
		@concho.con	····		_ c	Conditions of Approval:				Attached		
nte: 4-2 ttach Additi	2-14 onal Sheets	If Necessar	Phone: y	(432) 661-6601					<u></u>			



U/L J, Section 23, T17S, R28E 2310' FSL and 2310' FEL Eddy County, NM GPS: N 32.81977° W 104.14622° API# 30-015-25118

BBC International, Inc.							
COG							
MC St	ate #001						
Date: 12/06/2013 DRWG by: K. Purvis							
NOT TO SCALE	File: COG 2013						

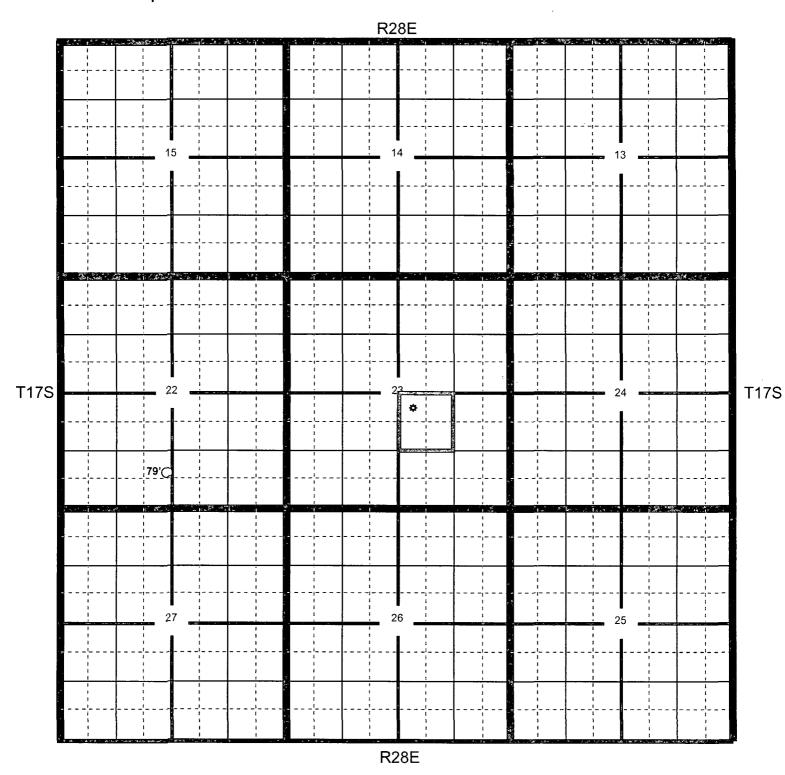


Groundwater Plot

COG MC State #001

CountyUnit LetterSectionTownshipRangeEddyJ2317S28E

Trend Map 100'



☆ Location

o OCD

OUSGS

○ SEO

All Databases



Section Quarters

COG MC State #001

CountyUnit LetterSectionTownshipRangeEddyJ2317S28E

Trend Map 100'

1

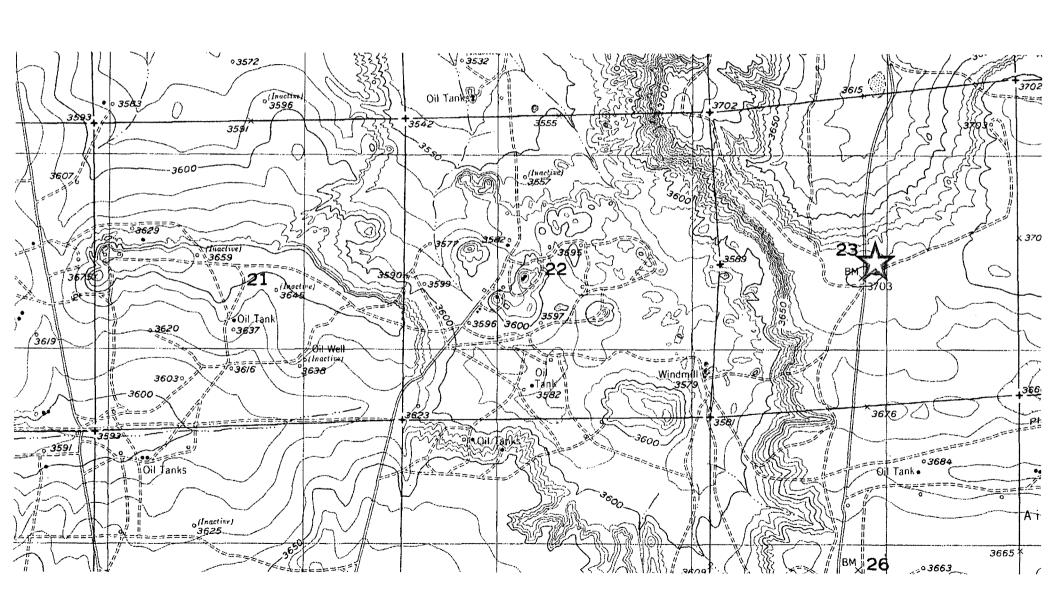
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COG MC State #001



Laboratory Analytical Results Summary COG, MC State #1

		Sample	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	11/27/13	11/27/13	11/27/13
***			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		8080	256	432
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP2 @ 1'
Analyte	Method	Date	11/27/13
			mg/Kg
Benzene	BTEX 8021B		<0.050
Toluene	BTEX 8021B		<0.050
Ethylbenzene	BTEX 8021B		<0.050
Total Xylenes	BTEX 8021B		<0.150
Total BTEX	BTEX 8021B		<0.300
Chloride	SM4500CI-B		704
GRO	TPH 8015M		<10.0
DRO	TPH 8015M		<10.0



Analytical Results For:

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

Fax To:

(575) 397-0397

Received:

11/27/2013

Sampling Date:

11/27/2013

Reported:

12/04/2013

Sampling Type:

Soil

Project Name:

MC STATE #1 NONE GIVEN

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

Sample ID: SP 1 @ 1 FT (H302909-01)

BTEX 8021B	mg/kg		Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2013	ND	2.12	106	2.00	0.201	
Toluene*	<0.050	0.050	12/03/2013	ND	2.11	105	2.00	0.713	
Ethylbenzene*	<0.050	0.050	12/03/2013	ND	2.09	104	2.00	1.03	
Total Xylenes*	<0.150	0.150	12/03/2013	ND	6.23	104	6.00	0.369	
Total BTEX	<0.300	0.300	12/03/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	120 5	% 89.4-12	6					_	
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8080	16.0	12/04/2013	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: ck						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/03/2013	ND	183	91.3	200	5.07	
DRO >C10-C28	<10.0	10.0	12/03/2013	ND	178	89.0	200	6.11	
Surrogate: 1-Chlorooctane	106 9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	104 9	% 63.6-15	4						

Sample ID: SP 1 @ 2 FT (H302909-02)

	,								
Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	12/04/2013	ND	400	100	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 interruptoons, 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 claims 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.

Celeg D. Keens

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

Analyzed By: AP

Received:

11/27/2013

Reported:

Chloride, SM4500CI-B

12/04/2013 MC STATE #1

Project Name: Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

ma/ka

Sampling Date:

11/27/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: SP 1 @ 3 FT (H302909-03)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	12/04/2013	ND	400	100	400	0.00	
Sample ID: SP 2 @ 1 FT (H3029	909-04)								
BTEX 8021B	mg	/kg	Analyze	ed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2013	ND	2.12	106	2.00	0.201	
Toluene*	<0.050	0.050	12/03/2013	ND	2.11	105	2.00	0.713	
Ethylbenzene*	<0.050	0.050	12/03/2013	ND	2.09	104	2.00	1.03	
Total Xylenes*	< 0.150	0.150	12/03/2013	ND	6.23	104	6.00	0.369	
Total BTEX	<0.300	0.300	12/03/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	120	% 89.4-12	6						
Chloride, SM4500CI-B	mg	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	12/04/2013	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/03/2013	ND	183	91.3	200	5.07	
DRO >C10-C28	<10.0	10.0	12/03/2013	ND	178	89.0	200	6.11	
Surrogate: 1-Chlorooctane	92.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.7	% 63.6-15	4						

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. Keine

Celey D. Keene, Lab Director/Quality Manager

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM. 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(505) 393-2326 FAX (505) 393-2476		
Company Name: BBC International, Inc.		ANALYSIS REQUEST
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: COE	City: San	
Project Name: MC State #1	State: Zip:	
Project Location: (660 H)(1)	Phone #:	
Sampler Name: Corylla	Fax #:	
FOR LAB USE ONLY MATI	X PRESERV SAMPLING]
(C)OMP ERS ATER		
Lab I.D. Sample I.D. 병호 [출]	SLUDGE OTHER: ACIDIBASE: OTHER: OTHER: THERE	
# # CONT # CONT # SOIL	S E S E S DATE TIME	
18202Ft 62 X	X 11-27-13 10:20	XXX
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4 SP20 2F 6 2 X	X 11-27-13 11: 92	
	 	
	 	
PLEASE NOTE: Liability and Dameges. Cerdinal's liability and client's exclusive ramedy for any claim arising whether based analyses. All claims including those for regigence and any other cause whatsoever shall be deemed waived unless made in versice. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business inter	ing and received by Cardinal within 30 days after completion offices, loss of use, or loss of profits incurred by client, its sub-	of the applicable idiaries
affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, repartless of whether sy Relinquished By: Received By:	Phone	Result: 🛘 Yes 🗘 No Add'l Phone #:
GaryRt 17:50 COW	Henson REMAR	
Relinquished By: Date: Received By:		•

Time:

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

Sample Condition
Cool Intact
Thes Days
No No

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

SITE INFORMATION

Report Type: Remediation Plan

General Site Information:	<u> </u>	•				
Site:	MC State #001					
Company:	COG Operating LLC					
Section, Township, and Range:	23 17S 28E					
Lease Number:	API# 30-015-25118					
County:	Eddy County, NM					
GPS:	N 32.81977° W 104.1	4622°				
Surface Owner:	State					
Mineral Owner:						
Directions:	In Loco Hills, go West on Hwy 82 for 10 miles between MM123 and MM122, turn right and go North on Turkey Track Rd (CR 209) for 1.3 miles to location.					
Release Data:						
Date Released:	11/9/2013					
Type of Release:	Produced water					
Source of Contamination:	Main produced water line					
Fluid Released:	8 bbls					
Fluids Recovered:	2 bbls					
Official Communication:						
Name:	Pat Ellis	Cliff Brunson				
Company:	COG Operating LLC	BBC International, Inc.				
Address:	550 W. Texas Ave., Ste. 1300	1324 W. Marland				
PO Box:		PO Box 805				
City, State, Zip Code:	Midland, TX 79701	Hobbs, NM 88241				
Phone Number:	(432) 686-3023	(575) 397-6388				
Fax:	(432) 684-7137	(575) 397-0397				
Email:	pellis@conchoresources.com	cbrunson@bbcinternational.com				
Ranking Criteria:						
Depth to Groundwater:	Ranking Score	Site Data				
<50 ft.	20					
50-99 ft.	10					
>100 ft.	0	0				
Well Head Protection:	Ranking Score	Site Data				
Water Source <1,000 ft., Private <200						
Water Source >1,000 ft., Private >200	0	0				
Surface Body of Water:	Ranking Score	Site Data				
<200 ft.	20					
200 ft 1,000 ft.	10					
>1,000 ft.	0	0				
Total Ranking Score:	0	;				

Acceptable Soil RRAL (mg/kg)								
Benzene	Total BTEX	TPH						
10	50	5000						

Pennedialient



COG Operating LLC

MC State #001

(Release Date 11/9/2013)

Unit J, Section 23, Township 17 South, Range 28 East Eddy County, New Mexico GPS: N 32.81977° W 104.14622°

ENVIRONMENTAL SITE INVESTIGATION

WORK PLAN 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

February 10, 2014

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: Work plan for COG Operating LLC, MC State #001, Unit J, Section 23, Township 17 South, Range 28 East, Eddy County, NM

1.0 SITE CHARACTERIZATION

The subject site is located East of Artesia, NM, in Section 23, Township 17 South, and Range 28 East, Eddy County, New Mexico. The GPS coordinates are N 32.81977° W 104.14622°. The site consists of undeveloped rangeland and petroleum production facilities. On November 9, 2013, a leak occurred at the main produced water line. The spill measured roughly 100 feet in length and 25 feet in width. Approximately 8 bbls of produced water were released and 2 bbls of produced water were recovered.

A diagram of the location including the sample points can be reviewed in Appendix I of this report. The surface soil is light brown sand with caliche and rock. There is no water source within 1,000 feet of this site. Based on the data from the Eddy County Groundwater Trend Map, the depth to groundwater in Section 23, Township 17 South, and Range 28 East is approximately 100 feet. The initial C-141 for the leak is at the end of this report in Appendix III.

2.0 SITE INVESTIGATION ACTIVITIES

On November 27, 2013, BBC personnel conducted a delineation of the site. The site delineation occurred after initial spill response activities had been conducted by COG. Sample points were taken at 1 foot, 2 feet, and 3 feet in the area of SP1. And, at SP2, one sample was taken at 1 foot. The samples were delivered to Cardinal Laboratories for BTEX, chloride content, and TPH analysis. Only the samples taken at the 1 foot depth were sample for BTEX and TPH and all results came back below reporting limits. All samples were tested for chloride content. The chloride results for SP1 were 8,080 mg/Kg at 1 foot, 256 mg/Kg at 2 feet, and 432 mg/Kg at 3 feet. At SP2, the chloride result was 704 mg/Kg at 1 foot.

The results of the analysis are located in Appendix II of this report. The sample point locations can be viewed on the site diagram in Appendix I of this report.

3.0 CONCLUSION AND RECOMMENDATION

After review of the analysis and the information gathered during the investigation conducted by BBC International, the following remediation plan is recommended. As depicted on the attached site drawing, it is recommended that the leak area would require the excavation of impacted soil to a depth of 1 foot below ground surface. The excavated soil would be transported to an OCD-approved disposal facility and the site would be backfilled with an appropriate top soil. Once the remediation plan is approved by NMOCD, BBC would carry out the activities, complete a closure report, and submit a final C-141.

APPENDIX I

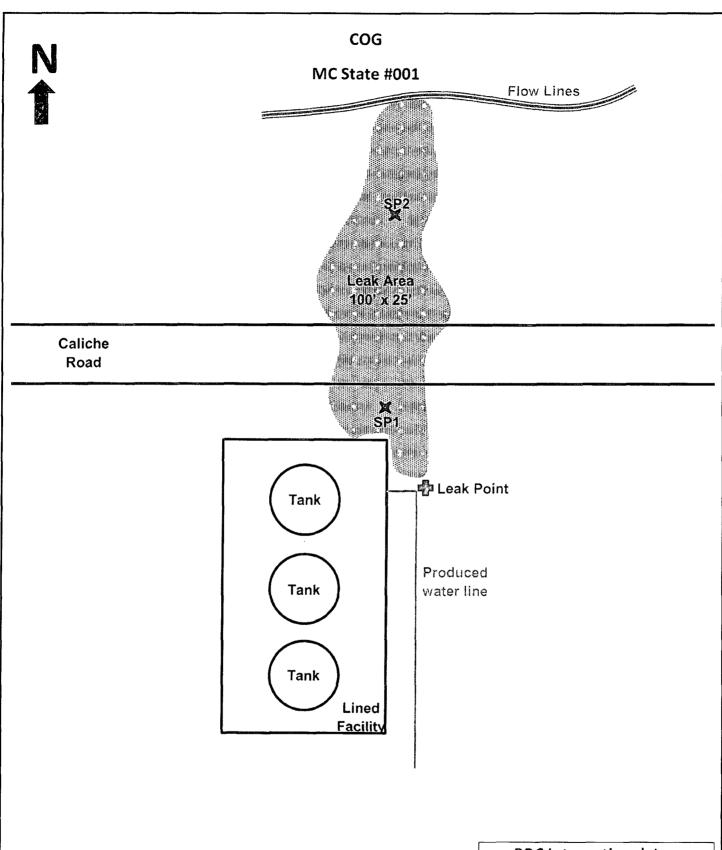
Site Diagram December 2013

MC State #001 (11/09/2013)

Unit J, Section 23, Township 17 South, Range 28 East Eddy County, NM GPS: N 32.81977° W 104.14622°

> Prepared for: COG Operating LLC Midland, Texas

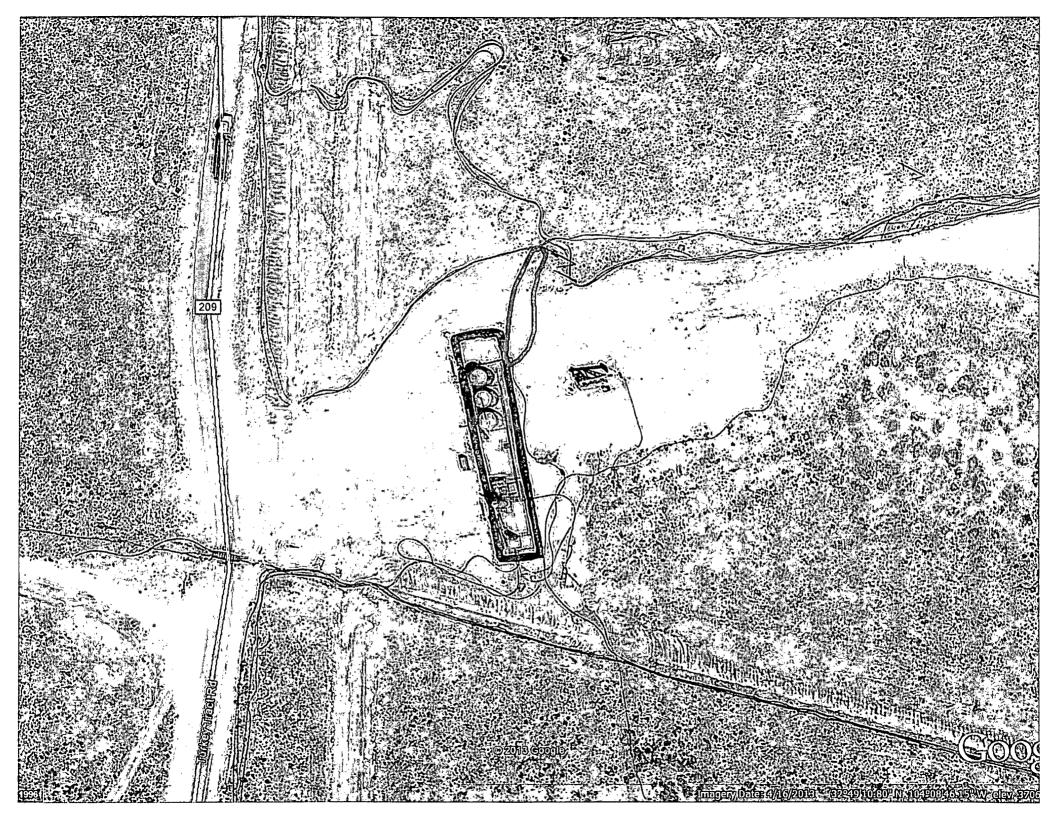
Prepared by: BBC International, Inc.



U/L J, Section 23, T17S, R28E 2310' FSL and 2310' FEL **Eddy County, NM** GPS: N 32.81977° W 104.14622°

API# 30-015-25118

BBC International, Inc.						
COG						
MC State #001						
Date: 12/06/2013	DRWG by: K. Purvis					
NOT TO SCALE	File: COG 2013					

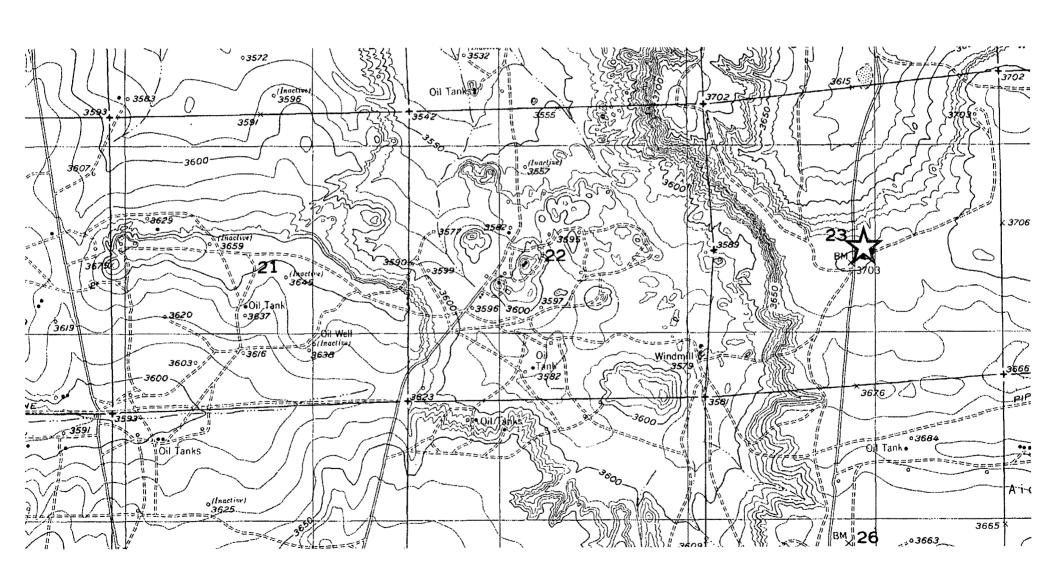


COG

MC State #001



COG
MC State #001





Section Quarters

COG MC State #001

CountyUnit LetterSectionTownshipRangeEddyJ2317S28E

Trend Map 100'

1

NW¦NW	NE/NW	NW/NE	NEANE
None found			
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SEÁNW	SW∤NE	SEANE
Unit Letter E NW/SW	Unit Letter F NE/SW	Unit Letter G NW/SE	Unit Letter H NE/SE
. Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW7SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

Location

o OCD

o USGS

o seo

All Databases

APPENDIX II

Laboratory Analytical Results

November 2013

MC State #001 (11/09/2013)

Unit J, Section 23, Township 17 South, Range 28 East Eddy County, NM GPS: N 32.81977° W 104.14622°

> Prepared for: COG Operating LLC Midland, Texas

Prepared by: BBC International, Inc.



Section Quarters

COG MC State #001

CountyUnit LetterSectionTownshipRangeEddyJ2317S28E

Trend Map 100'

1

2

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

3

4

❖ Location

o OCD

o USGS

O SEO

All Databases

Laboratory Analytical Results Summary COG, MC State #1

		Sample	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	11/27/13	11/27/13	11/27/13
			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		8080	256	432
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP2 @ 1'
Analyte	Method	Date	11/27/13
			mg/Kg
Benzene	BTEX 8021B		<0.050
Toluene	BTEX 8021B		<0.050
Ethylbenzene	BTEX 8021B		<0.050
Total Xylenes	BTEX 8021B		<0.150
Total BTEX	BTEX 8021B		< 0.300
Chloride	SM4500CI-B		704
GRO	TPH 8015M		<10.0
DRO	TPH 8015M		<10.0



December 04, 2013

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MC STATE #1

Enclosed are the results of analyses for samples received by the laboratory on 11/27/13 14:50.

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 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 accredited certifi.html.

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

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

Accreditation applies to public drinking water matrices.

Celeg & Keine

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: Reported: 11/27/2013

Project Name: Project Number:

Project Location:

12/04/2013 MC STATE #1 NONE GIVEN NOT GIVEN Sampling Date:

11/27/2013

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: SP 1 @ 1 FT (H302909-01)

BTEX 8021B

mg/kg Analyzed By: CK

	3	, · · · · · · · · · · · · · · · · · · ·							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2013	ND	2.12	106	2.00	0.201	
Toluene*	<0.050	0.050	12/03/2013	ND	2.11	105	2.00	0.713	
Ethylbenzene*	< 0.050	0.050	12/03/2013	ND	2.09	104	2.00	1.03	
Total Xylenes*	<0.150	0.150	12/03/2013	ND	6.23	104	6.00	0.369	
Total BTEX	<0.300	0.300	12/03/2013	ND					
Surrogate: 4-Bromofluorobenzene (1	PIC 120	% 89.4-13	?6						

Chloride, SM4500CI-B	mg	/kg	Analyzed By: AP				,		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	BS % Recovery	True Value QC	RPD	Qualifier
Chloride	8080	16.0	12/04/2013	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: ck						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/03/2013	ND	183	91.3	200	5.07	
DRO >C10-C28	<10.0	10.0	12/03/2013	ND	178	89.0	200	6.11	

Surrogate: 1-Chlorooctane 106 % 65.2-140
Surrogate: 1-Chlorooctadecane 104 % 63.6-154

Sample ID: SP 1 @ 2 FT (H302909-02)

Chloride, SM4500CI-B	mg	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	12/04/2013	ND	400	100	400	0.00	

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keena

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: Reported: 11/27/2013

12/04/2013

MC STATE #1

Project Number:

Project Name:

NONE GIVEN

Sampling Date:

11/27/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: SP 1 @ 3 FT (H302909-03)

Chloride,	SM4500CI-B
-----------	------------

ma	. /	
mg	17	W.

Analyzed By: AP

	Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Ch	loride	432	16.0	12/04/2013	ND	400	100	400	0.00	

Sample ID: SP 2 @ 1 FT (H302909-04)

BTEX 8021B	mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2013	ND	2.12	106	2.00	0.201	
Toluene*	<0.050	0.050	12/03/2013	ND	2.11	105	2.00	0.713	
Ethylbenzene*	<0.050	0.050	12/03/2013	ND	2.09	104	2.00	1.03	
Total Xylenes*	<0.150	0.150	12/03/2013	ND	6.23	104	6.00	0.369	
Total BTEX	<0.300	0.300	12/03/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL	120 %	89.4-126	

Chloride, SM4500CI-B	mg	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD 0.00	Qualifier
Chloride	704	16.0	12/04/2013	ND	400	100	400		
TPH 8015M	mg/kg		Analyzed By: ck						
Analyte	Analyte Result Reporting Lim		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	<10.0 10.0		ND	183	91.3	200	5.07	
O >C10-C28 <10.0 10.0		12/03/2013	ND	178	89.0	200	6.11		

Surrogate: 1-Chlorooctane 92.7% 65.2-140 Surrogate: 1-Chlorooctadecane 92.7% 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey & Keene

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Kune

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM. 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(505) 393-2326 FAX (505) 393-2476		
Company Name: BBC International, Inc.	BULTO	ANALYSIS REQUEST
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: COB	city: San	
Project Name: MC State #1	State: Zip:	
Project Location: (800 H) (1)	Phone #:	
Sampler Name: Cory RA	Fax #:	
FOR LAB USE ONLY MATR	PRESERV SAMPLING	
(C)OMP ERS MTER TER		
Lab I.D. Sample I.D.		
Tab I.D. Sample I.D. (a) RASTEWATER WASTEWATER SSOIL	SILUDGE OTHER: ACID/BASE: CE / COOL OTHER:	
182@2F+ 62 X	X 11-27-13 10:20 X X X	
25/182FF 62 X	X 11-21-13 10:38 X	
38183F+ 62 X	X 11-27-11 10:50 X	
4 SP2E 2F+ 62 X	X 11-27-13 11:45 X X X	
• • • • • • • • • • • • • • • • • • • •		

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affiliates or successors arising out of or related to the performance	of services hereunder by C	ardinal, regardie	ss of whether such claim is base	ed upon any of the above stated re	asons or otherwise.				<u>`</u>	•
Relinguished By:	Date:	Receive	d By:		Phone Result:	□ Yes	□ No ¯	Add'l Phone #:		
	11-25-13	1 / _	, 4		Fax Result:	□ Yes	□ No	Add'l Fax #:		
Garylet	Tig: 50	40	de se	nson	REMARKS:					
Relinguished By:	Date:	Receive	d By:					•		
· · ·] 0			1					•
	Time:		,	•						*
		<u> </u>							4	
Delivered By: (Circle One)	•	1	Sample Condition	CHECKED BY:					•	
1 ' '			Cool Intact	(Jojitial/A)						
Sampler - UPS - Bus - Other:		40	No No	CAT					•	
		-		7						

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

APPENDIX III

C-141 *November 2013*

MC State #001 (11/09/2013)

Unit J, Section 23, Township 17 South, Range 28 East Eddy County, NM GPS: N 32.81977° W 104.14622°

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

Form C-141

Revised October 10, 2003

Santa Fe, NM 87505

Release Notification and Corrective Action

											Final Report		
Name of Co		COG OP				Contact Robert McNeill							
Address				dland, TX 7970		Telephone N		32-230-			***		
Facility Nan	ne	MC S	tate #001		1.1	Facility Type Tank Battery							
Surface Own	ner State			Mineral C	wner				Lease N	lo. (API#)	30-015	5-25118	
				LOCA	TION	OF REI	LEASE		,				
Unit Letter J	Section 23	Township 17S	Range 28E	Feet from the	North/	South Line	Feet from the	East/W	est Line	County	County Eddy		
Latitude 32.81976 Longitude 104.14595 NATURE OF RELEASE													
Type of Relea	se Produc	ed water	_				Release 8bbls		Volume F	Recovered 2	bbls		
Source of Rel	case Main	produced wat	er line			Date and H 11-09-2013	our of Occurrenc			Hour of Dise			
Was Immedia	ite Notice C		No 🛛 Not Re	equired	If YES, To	Whom?							
By Whom?						Date and H							
Was a Watercourse Reached? ☐ Yes ☑ No						If YES, Volume Impacting the Watercourse.							
If a Watercou	rse was Im	pacted, Descri	be Fully.*		**************************************								
Describe Cau	se of Probl	em and Remed	lial Action	Taken.*									
A 45 connect	ion from th	e water pump	failed. Re	placer the 45 con	nection t	to prevent a re	eoccurrence.						
Describe Are	Affected :	and Cleanup A	ction Tak	en.*									
fluids have be possible contr	en recoveramination f	ed. The spill wrom the releas	as located	a faulty 45 conne l inside the facilit vill present a wor	y walls a k plan to	and the adjace the NMOCI	ent pasture. BBC O for approval pri	will samp	ple the spi significat	ill site area to nt remediatio	o deline on work	eate any	
regulations al public health should their o	l operators or the envi perations h ament. In a	are required to conment. The ave failed to a ddition, NMO	report an acceptanc dequately CD accep	is true and compid/or file certain rule of a C-141 repointment of a	elease no ort by the emediate	otifications and NMOCD made contamination	d perform correct trked as "Final Room that pose a three	tive action eport" do eat to gro	ons for rele es not reli ound water	eases which ieve the oper r, surface wa	may en ator of ter, hur	danger liability man health	
				•			OIL CONS	SERVA	ATION	DIVISIO	N		
Signature:	-	- L-+)	1	L								j	
Printed Name			t Grubles J	r.	4	Approved by	District Supervise	o r :					
Title:		Senior Enviror	mental Co	oordinator		Approval Date	e:	E	xpiration	Date:			
E-mail Addre	ss:	rgrubbs@	concho.co	om	,	Conditions of	Approval:			Attached			
Date: 11-	14-2013		Phone:	432-661-660	!								

^{*} Attach Additional Sheets If Necessary

Bratcher, Mike, EMNRD

From: Kathy Purvis <kathy@bbcinternational.com> **Sent:** Wednesday, November 20, 2013 2:33 PM

To: Bratcher, Mike, EMNRD; Adam Olguin; Alan Coor (William); Baron Chandler; Brian

Cunningham; Chris Chesser; Claudie Cochran; Danny Matthews; David Coor; David Rutherford; Eddie Foster; Gail Lamb; Jason Barnett; Jimmy Wilcox; Keenan Kern; Kent Greenway; Larry Baker; Michelle Mullins; Robbie Miller; Robert Grubbs; Rocky Harper; Ron Beasley; Ronnie Tice; Ryan Faulkenberry; Stan Hammond; Warren Hunt; Winston

Ballard

Cc: cbrunson@bbcinternational.com; kswinney@bbcinternational.com;

jgilkey@bbcinternational.com

Subject: BBC delineation, Oxy Spumoni State #001; BBC site assessment and delineation, MC

State #001

BBC International Inc. will begin delineation activities on Thursday, November 21, 2013 at the Oxy Spumoni State #001 in Eddy County, NM. We will also conduct a site assessment and begin delineation activities on Thursday, November 21, 2013 at the MC State #001 in Eddy County, NM. If you have any questions, please contact our office.

Kathy Purvis BBC International, Inc. 1324 W. Marland Hobbs, NM 88240 Phone: (575) 397-6388 Fax: (575) 397-0397

Email: kathy@bbcinternational.com