

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-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator COG Operating, LLC Telephone (432) 685-4340 e-mail address PEdwards@conchoresources.com
Address 550 West Texas Ave., Suite 1300, Midland, Texas 79701
Facility or well name MC Federal #10 API # 30-025-38262 U/L or Qtr/Qtr E Sec 22 T-17-S R-32-E
County Eddy Latitude 32 823115N Longitude 103.759116W NAD 1927 X 1983 ☐
Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Pit Volume 25,000 bbl	Volume _____ bbl Type of fluid _____ Construction material _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water) 115	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points)
Wellhead protection area (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)	Yes (20 points) No (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points) 0
Ranking Score (Total Points) 0	

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date (4) Groundwater encountered No ☒ Yes ☐ If yes, show depth below ground surface _____ ft and attach sample results (5) Attach soil sample results and a diagram of sample locations and excavations

Additional Comments On August 8, 2007, sampling was performed in the bottom of the above mentioned reserve pit location. The samples were taken in the four corners and the center of the pit. Field test results indicated that chloride levels in excess of 1000 mg/kg were found in the center of the pit area. The pit was then sampled at depths of 5 and 10 feet and the field chloride levels indicated they were well below 1000 mg/kg. The center 10' sample as well as all of the 2' corner samples were taken to Trace Analysis, Inc for analysis. The results showed that all of the corner samples had chloride levels below 100 mg/kg and the 10' center sample had 265 mg/kg.

The top 5' of soil from the center horseshoe of the pit was removed and placed in the lined cuttings burial trench located by the reserve pit. The pit was then backfilled and re-contoured with completion on August 22, 2007.

I hereby certify that the information above is true and complete to the best of my knowledge and belief I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 10-2-07

Printed Name/Title Gary Miller, Agent

Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations

Approval

Printed Name/Title

Signature

ENVIRONMENTAL ENGINEER

Date 10-26-07



Highlander Environmental Corp.

Midland, Texas
August 28, 2007

Mr. Larry Johnson
NMOCD, District I
1625 French Drive
Hobbs, New Mexico 88240

Re: COG Operating LLC
MC Federal #10, Lea County, New Mexico
API # 30-025-38262
Final Pit Closure Report

Dear Mr. Johnson:

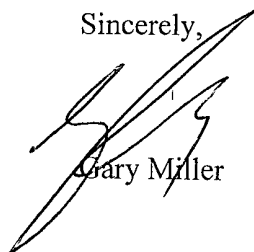
Highlander Environmental Corp was contracted by COG Operating LLC to test and prepare closure documentation for the above mentioned reserve pit. This letter and attachments will serve as the final closure report for this reserve pit.

On August 8, 2007, sampling was performed in the bottom of the above mentioned reserve pit location. The samples were taken in the four corners and the center of the pit. Field test results indicated that chloride levels in excess of 1000 mg/kg were found in the center of the pit area. The pit was then sampled at depths of 5 and 10 feet and the field chloride levels indicated they were well below 1000 mg/kg. The center 10' sample as well as all of the 2' corner samples were taken to Trace Analysis, Inc for analysis. The results showed that all of the corner samples had chloride levels below 100 mg/kg and the 10' center sample had 265 mg/kg.

The top 5' of soil from the center horseshoe of the pit was removed and placed in the lined cuttings burial trench located by the reserve pit. The pit was then backfilled and re-contoured with completion on August 22, 2007.

Attached please find the field testing reports and final laboratory analysis for the above mentioned site. If you require any additional information please call.

Sincerely,



Gary Miller

cc. Phyllis Edwards, COG Operating LLC

Attachments: Form C-103 approved pit closure
Highlander Environmental Corp field sample results
Trace Analysis, Inc. Lab reports

Submit 3 Copies to Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-38262	
5. Indicate Type of Lease	FEDERAL
STATE <input type="checkbox"/>	FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name M C FEDERAL	
8. Well Number	10
9. OGRID Number 229137	
10. Pool name or Wildcat MALJAMAR; PADDOCK 44500	

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	
2. Name of Operator COG Operating LLC	
3. Address of Operator 550 W. Texas Ave., Suite 1300 Midland, TX 79701	
4. Well Location Unit Letter E : 1500' feet from the North line and 990' feet from the West line Section 22 Township 17S Range 32E NMPM County LEA	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4009' GR	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input checked="" type="checkbox"/>	
Pit type DRILLING Depth to Groundwater 115' Distance from nearest fresh water well 1000' Distance from nearest surface water 1000'	
Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls Construction Material 	

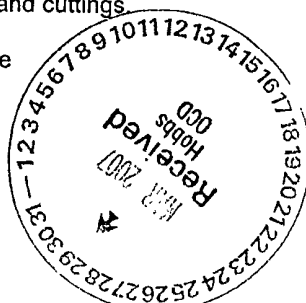
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Pit closure <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC proposes to close the drilling pit as follows:

1. Remove fluids from pit.
2. A deep trench pit will be constructed next to the existing reserve pit and lined with a 12 mil liner. The contents will be encapsulated in this pit and the liner will be folded over the mud and cuttings.
3. Cover liner with 20 mil liner with excess of 3' on all sides as per option IV.B.3.(b) of the Pit and Below-Grade Tank Guidelines.
4. Cover with a minimum 3' of native soil.
5. Contour pit to prevent erosion and ponding of rainwater.



I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Phyllis Edwards TITLE Regulatory Analyst DATE 3-28-07

Type or print name **Phyllis Edwards** E-mail address: **pedwards@conchoresources.com** Telephone No. **432-685-4340**
For State Use Only

APPROVED BY: Hayden Wink FIELD REPRESENTATIVE II/STAFF MANAGER DATE MAR 30 2007
Conditions of Approval (if any):

Highlander Environmental Corp.
Pit Sample Location Plat

Pit wall in feet 125

x NW

x NE

x Center

Depth of pit in feet 10'

x SW

x SE

x _____ Indicates Sample Location
(Name by quarter i.e. NW, NE etc)



Draw in North Arrow

Pit wall in feet 65

• Wellhead

Well Pad

Client: COG

Well Name: MC Fuel #10

API# 30-025-38262

Summary Report

Gary Miller
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 21, 2007

Work Order: 7081712



Project Location: Lea County, NM
Project Name: COG/MC Federal #10
Project Number: 3140

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
133512	Northeast 2.0'	soil	2007-08-16	00:00	2007-08-17
133513	Northwest 2.0'	soil	2007-08-16	00:00	2007-08-17
133514	Center 10.0'	soil	2007-08-16	00:00	2007-08-17
133515	Southeast 2.0'	soil	2007-08-16	00:00	2007-08-17
133516	Southwest 2.0'	soil	2007-08-16	00:00	2007-08-17

Sample: 133512 - Northeast 2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 133513 - Northwest 2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 133514 - Center 10.0'

Param	Flag	Result	Units	RL
Chloride		265	mg/Kg	2.00

Sample: 133515 - Southeast 2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 133516 - Southwest 2.0'

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296
This is only a summary. Please, refer to the complete report package for quality control data.

Report Date: August 21, 2007
3140

Work Order: 7081712
COG/MC Federal #10

Page Number: 2 of 2
Lea County, NM

Param	Flag	Result	Units	RL
Chloride		135	mg/Kg	2.00



6701 Aberdeen Avenue Suite 9 Lubbock, Texas 79424 806•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•1944
5002 Basin Street Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6303
5015 Harris Parkway, Suite 110 Ft Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gary Miller
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 21, 2007

Work Order: 7081712



Project Location: Lea County, NM
Project Name: COG/MC Federal #10
Project Number: 3140

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
133512	Northeast 2.0'	soil	2007-08-16	00:00	2007-08-17
133513	Northwest 2.0'	soil	2007-08-16	00:00	2007-08-17
133514	Center 10.0'	soil	2007-08-16	00:00	2007-08-17
133515	Southeast 2.0'	soil	2007-08-16	00:00	2007-08-17
133516	Southwest 2.0'	soil	2007-08-16	00:00	2007-08-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 4 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 133512 - Northeast 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40216	Date Analyzed:	2007-08-20	Analyzed By:	AR
Prep Batch:	34804	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 133513 - Northwest 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40216	Date Analyzed:	2007-08-20	Analyzed By:	AR
Prep Batch:	34804	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 133514 - Center 10.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40216	Date Analyzed:	2007-08-20	Analyzed By:	AR
Prep Batch:	34804	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		265	mg/Kg	50	2.00

Sample: 133515 - Southeast 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40216	Date Analyzed:	2007-08-20	Analyzed By:	AR
Prep Batch:	34804	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 133516 - Southwest 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40216	Date Analyzed:	2007-08-20	Analyzed By:	AR
Prep Batch:	34804	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		135	mg/Kg	50	2.00

Method Blank (1) QC Batch: 40216

QC Batch: 40216 Date Analyzed: 2007-08-20 Analyzed By: AR
Prep Batch: 34804 QC Preparation: 2007-08-17 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 40216 Date Analyzed: 2007-08-20 Analyzed By: AR
Prep Batch: 34804 QC Preparation: 2007-08-17 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 133516

QC Batch: 40216 Date Analyzed: 2007-08-20 Analyzed By: AR
Prep Batch: 34804 QC Preparation: 2007-08-17 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	4900	mg/Kg	50	5000	134.696	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	4940	mg/Kg	50	5000	134.696	96	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 40216 Date Analyzed: 2007-08-20 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.0	98	85 - 115	2007-08-20

Standard (CCV-1)

QC Batch: 40216

Date Analyzed: 2007-08-20

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-08-20

W.O.# 7081712

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

PAGE: 1 OF: 1
ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

C06

SITE MANAGER:

Gary Miller

PROJECT NO.:

3140

PROJECT NAME:

C06/MC Federal # 10

Lea Co NM

SAMPLE IDENTIFICATION

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

HTEX 8020/802

MTHB 8020/802

TFH 418.1 8015 MOD. TX1005

PAH 8270

RCHA Metals Ag As Ba Cd Cr Pb Hg Se

TCIP Metals Ag As Ba Cd Cr Pb Hg Se

TCIP Volatiles

TCIP Semi Volatiles

RCI

GC/MS Vol. 8240/8280/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/808

Pest. 809/808

HOD, TSS, pH, TDS, Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

RELINQUISHED BY: (Signature)

Date: 08/17/07

Time: 10:17

RECEIVED BY: (Signature)

Date: 8/17/07

Time: 10:17

SAMPLED BY: (Print & Sign)

Jeremy Jones / Jeff Harrison

Date: 8/17/07

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

HAND DELIVERED UPS

AIRBILL #

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

RECEIVING LABORATORY:

Trace

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland

STATE: Texas

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

Intact 3.2°

MATRIX:

W-Water

A-Air

SD-Solid

S-Soil

SL-Sludge

O-Other

REMARKS:

HIGHLANDER CONTACT PERSON:

Gary Miller

Results by:

RUSH Charges

Authorized:

Yes No

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

JD