

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

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOC District Office

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1. Operator COG OPERATING LLC OGRID #: 229137	
Address: 550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701	
Facility or well name: FALABELLA "31" FEE #2H	
API Number: 30-015-40262	OCD Permit Number: 212928
U/L or Qtr/Qtr UL N Section 31 Township 18S Range 26E County: Eddy	
Center of Proposed Design: Latitude N/A Longitude N/A	
Surface Owner: <input type="checkbox"/> Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment	

RECEIVED
MAY 11 2012
Eddy
NMOC DISTRICT OFFICE

2. ☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3. **Signs:** Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

4. **Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5. **Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: **CRI** Disposal Facility Permit Number: **R1966**
Disposal Facility Name: **GM INC** Disposal Facility Permit Number: **711-019-001**
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No
Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): **KAGIE CONNALLY** Title: **PERMITTING TECH**
Signature: *Kacie Connally* Date: **12/09/2011**
e-mail address: **kconnally@concho.com** Telephone: **432-685-4304**

7. **OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only)
OCD Representative Signature: AP Dade **Approval Date:** 05/11/2012
Title: Dist H Supervisor **OCD Permit Number:** 212928

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC
Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.
☐ Closure Completion Date: _____

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**
Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name: _____ Disposal Facility Permit Number: _____
Disposal Facility Name: _____ Disposal Facility Permit Number: _____
Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No
Required for impacted areas which will not be used for future service and operations:
☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): _____ Title: _____
Signature: _____ Date: _____
e-mail address: _____ Telephone: _____

Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

CRI (permit number R9166)

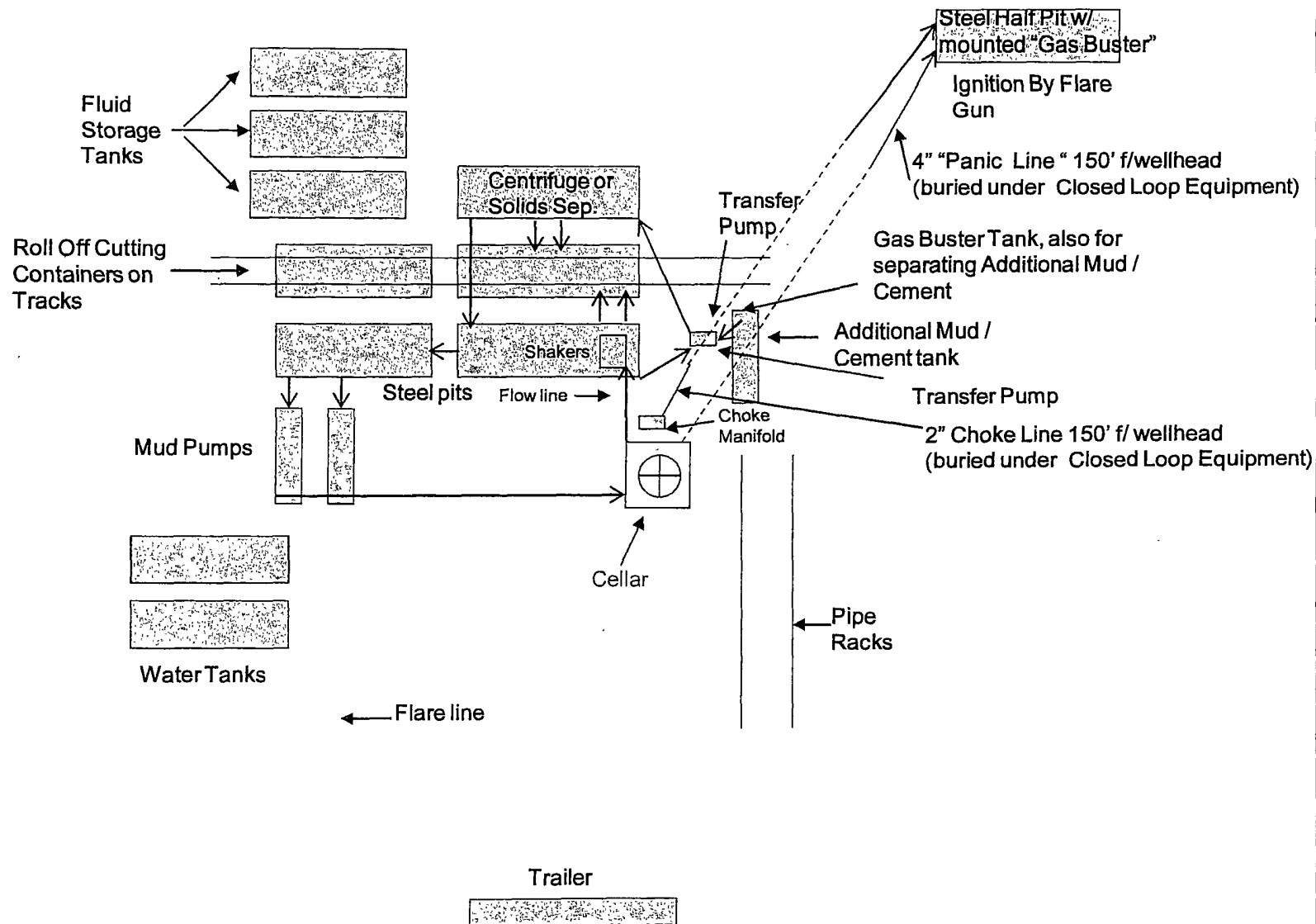
or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Closed Loop Equipment Diagram



COG Operating LLC

Eddy County, NM

Falabella 31 Fee 2H

Falabella 31 Fee 2H

Wellbore #1

Surface: 150' FSL, 1700' FWL, Sec 31, T18S, R26E, Unit N

BHL: 330' FNL, 1700' FWL, Sec 31, T18S, R26E, Unit C

PP: 330' FSL, 1700' FWL Sec 31, T18S, R26E, Unit N

Plan: Plan #1

Standard Planning Report

26 April, 2012

Crescent Directional Drilling

Planning Report

Database:	R5000.Houston.DB	Local Co-ordinate Reference:	Site: Falabella 31.Fee 2H
Company:	COG Operating LLC	TVD Reference:	WELL @ 3450 00ft (Original Well Elev)
Project:	Eddy County, NM	MD Reference:	WELL @ 3450 00ft (Original Well Elev)
Site:	Falabella 31.Fee 2H	North Reference:	Grid
Well:	Falabella 31.Fee 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	Eddy County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Falabella,31 Fee 2H				
Site Position:		Northing:	617,360 90 ft	Latitude:	32° 41' 49 88 N
From:	Map	Easting:	472,254 50 ft	Longitude:	104° 25' 24 70 W
Position Uncertainty:	0 00 ft	Slot Radius:	13 200 in	Grid Convergence:	-0 05 °

Well	Falabella 31 Fee 2H					
Well Position	+N/-S	0 00 ft	Northing:	617,360 90 ft	Latitude:	32° 41' 49 88 N
	+E/-W	0 00 ft	Easting:	472,254 50 ft	Longitude:	104° 25' 24 70 W
Position Uncertainty		0 00 ft	Wellhead Elevation:		Ground Level:	3,432 00 ft

Wellbore					
Wellbore #1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	4/26/2012	7 91	60 46	48,719

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0 00	0 00	0 00	0 16

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2,272 54	0 00	0 00	2,272 54	0 00	0 00	0 00	0 00	0 00	0 00	
3,022 54	90 00	0 16	2,750 00	477 46	1 30	12 00	12 00	0 00	0 16	
7,392 39	90 00	0 16	2,750 00	4,847 30	13 20	0 00	0 00	0 00	0 00	PBHL (Falabella 31 F

Crescent Directional Drilling

Planning Report

Database:	R5000 Houston DB	Local Co-ordinate Reference:	Site Falabella 31 Fee 2H
Company:	COG Operating LLC	TVD Reference:	WELL @ 3450 00ft (Original Well Elev)
Project:	Eddy County, NM	MD Reference:	WELL @ 3450 00ft (Original Well Elev)
Site:	Falabella 31 Fee 2H	North Reference:	Grnd
Well:	Falabella 31 Fee 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,272.54	0 00	0 00	2,272.54	0 00	0 00	0 00	0 00	0.00	0 00
KOP - Start Build @ 12.00°/100'									
2,701.40	51 46	0 16	2,646.02	180 00	0 49	180 00	12 00	12 00	0 00
PP @ 2701.40 MD, 2646.02 TVD, 51.46 INC, 0.16 AZ, 180.00 VS									
3,022.54	90 00	0 16	2,750.00	477 46	1 30	477 46	12 00	12 00	0 00
Landing Point - Hold @ 90.00° INC, 0.16° AZ									
7,392.39	90 00	0 16	2,750.00	4,847 30	13 20	4,847 32	0 00	0 00	0 00
TD @ 7392.39' MD, 2750.00' TVD - PBHL (Falabella 31 Fee 2H Plan 1)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (Falabella 31 Fee	0 00	0 00	2,750 00	4,847.30	13 20	622,208 20	472,267 70	32° 42' 37 84 N	104° 25' 24.60 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,272.54	2,272.54	0 00	0 00	KOP - Start Build @ 12 00°/100'
2,701.40	2,646.02	180 00	0 49	PP @ 2701 40 MD, 2646 02 TVD, 51 46 INC, 0 16 AZ, 180 00 VS
3,022.54	2,750.00	477 46	1 30	Landing Point - Hold @ 90 00° INC, 0 16° AZ
7,392.39	2,750.00	4,847 30	13 20	TD @ 7392 39' MD, 2750 00' TVD



COG Operating LLC
Falabella 31 Fee 2H
Eddy County, NM
Plan #1



Surface Location		Ground Elev: 3432.00 WELL @ 3450.00ft (Original Well Elev)			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	617360.90	472254.50	32° 41' 49.88 N	104° 25' 24.70 W

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Falabella 31 Fee 2H Plan 1)	2750.00	4847.30	13.20	622208.20	472267.70	32° 42' 37.84 N	104° 25' 24.60 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	KOP - Start Build @ 12.00°/100'
3	3022.54	90.00	0.16	2750.00	477.46	1.30	12.00	0.16	477.46	Landing Point - Hold @ 90.00° INC, 0.16° AZ
4	7392.39	90.00	0.16	2750.00	4847.30	13.20	0.00	0.00	4847.32	TD @ 7392.39' MD, 2750.00' TVD

