

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 NMOCD 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: STONEWALL "9" FEE #4H
API Number: 30-015-39779 OCD Permit Number: 212305
U/L or Qtr/Qtr UL A Section 9 Township 19S Range 26E County: Eddy
Center of Proposed Design: Latitude N/A Longitude N/A NAD: ☐ 1927 ☐ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

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): KELLY J HOLLY Title: PERMITTING TECH
Signature: [Signature] Date: 11/21/2011
e-mail address: kholly@concho.com Telephone: 432-685-4384

7. **OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____

Approval Date: 12/21/2011

Title: _____

OCD Permit Number: 212 305

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: _____

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)

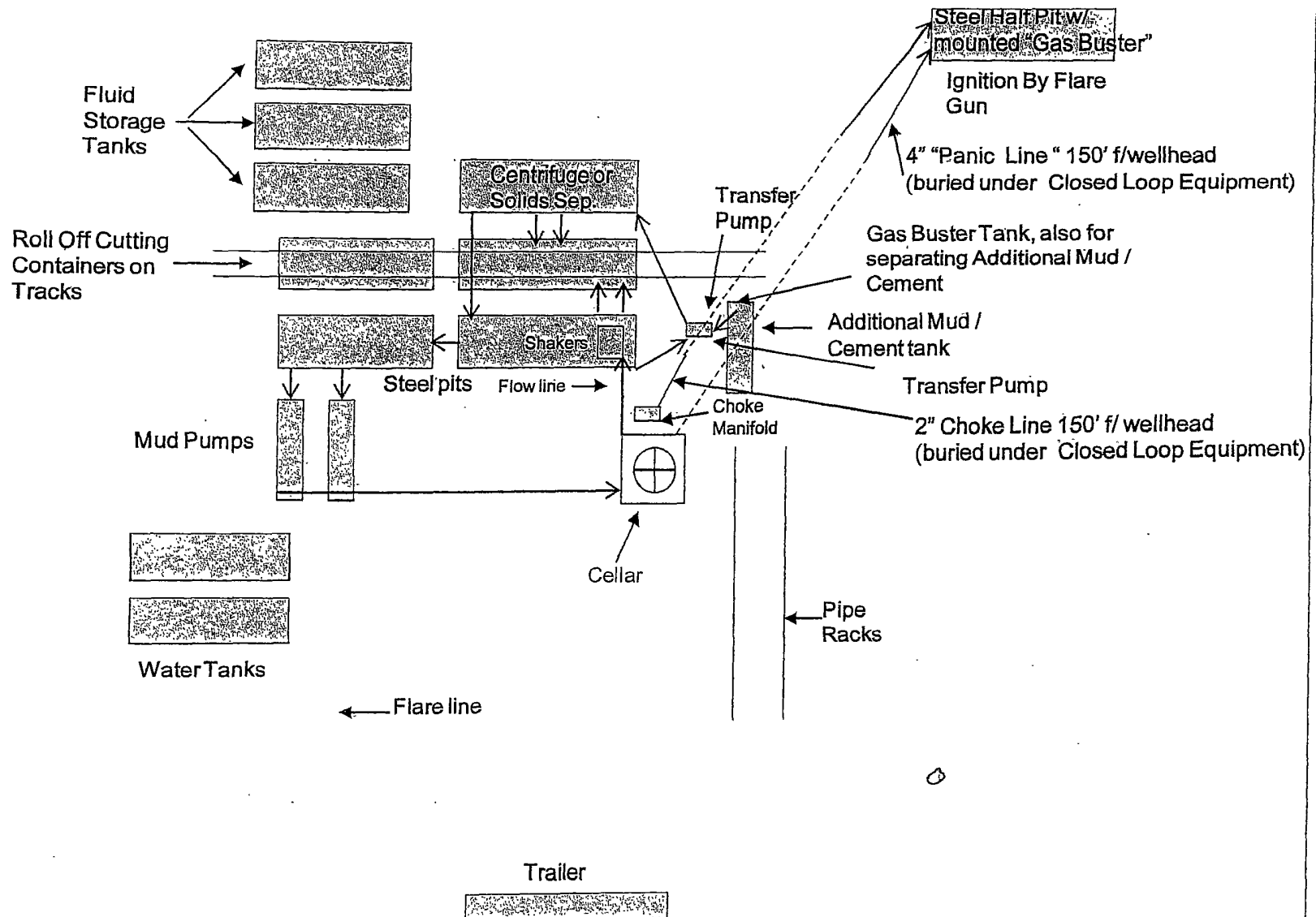
or

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 (NAN27 NME)

Stonewall 9 Fee #4H

Stonewall 9 Fee #4H

OH

Plan: Plan #1 8-3/4" Hole

SHL = 150' FNL & 1040' FEL

PP = 330' FNL & 1040' FEL

BHL = 330' FSL & 1040' FEL

Standard Planning Report

13 December, 2011



Scientific Drilling
Directional Drilling Operations



SDI
Planning Report



Database:	EDM 5000 1 Single User-Db.	Local Co-ordinate Reference:	Site Stonewall 9 Fee #4H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3339 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3339 00usft
Site:	Stonewall 9 Fee #4H	North Reference:	Grid
Well:	Stonewall 9 Fee #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

Project:	Eddy County, NM (NAN27 NME)		
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:	Stonewall 9 Fee #4H		
Site Position:		Northing:	611,851.90 usft
From:	Map	Easting:	485,217 10 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 55 456 N
		Longitude:	104° 22' 52 968 W
		Grid Convergence:	-0 03 °

Well:	Stonewall 9 Fee #4H		
Well Position	+N/-S	0 00 usft	Northing:
	+E/-W	0 00 usft	Easting:
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level:

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2011/12/12	7 93
			Dip Angle
			(°)
			60 46
			Field Strength
			(nT)
			48,752

Design	Plan #1 8-3/4" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			Direction
			(°)
			178 43

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
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	178.43	2,750.00	-477.28	13 10	12 00	12 00	0 00	178 43	
7,431 21	90 00	178 43	2,750 00	-4,884 30	134 10	0 00	0 00	0 00	0 00	PBHL-Stonewall 9 Fe



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Stonewall 9 Fee #4H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3339 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3339 00usft
Site:	Stonewall 9 Fee #4H	North Reference:	Gnd
Well:	Stonewall 9 Fee #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
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	
KOP Start Build 12.00°/100'										
2,300 00	3 30	178 43	2,299 98	-0 79	0 02	0 79	12 00	12 00	0 00	
2,400 00	15 30	178 43	2,398 49	-16 91	0 46	16 91	12 00	12 00	0 00	
2,500 00	27 30	178 43	2,491 49	-53 15	1 46	53 17	12 00	12 00	0 00	
2,600 00	39 30	178 43	2,574 93	-107 92	2 96	107 96	12 00	12 00	0 00	
2,700 00	51 30	178 43	2,645 14	-178 84	4 91	178 91	12 00	12 00	0 00	
2,701 48	51 47	178 43	2,646 07	-180 00	4 94	180 07	12 00	12 00	0 00	
PP=330' FNL Stonewall 9 #4H										
2,800 00	63 30	178 43	2,699 07	-262 80	7 22	262 90	12 00	12 00	0 00	
2,900 00	75 30	178 43	2,734 36	-356 14	9 78	356 27	12 00	12 00	0 00	
3,000 00	87 30	178 43	2,749 47	-454 77	12 49	454 94	12 00	12 00	0 00	
3,022 54	90 00	178 43	2,750 00	-477 29	13 10	477 47	12 00	12 00	0 00	
Land EOC hold 90.00°										
3,100 00	90 00	178 43	2,750 00	-554 72	15 23	554 93	0 00	0 00	0 00	
3,200 00	90 00	178 43	2,750 00	-654 68	17 97	654 93	0 00	0 00	0 00	
3,300 00	90 00	178 43	2,750 00	-754 65	20 72	754 93	0 00	0 00	0 00	
3,400 00	90 00	178 43	2,750 00	-854 61	23 46	854 93	0 00	0 00	0 00	
3,500 00	90 00	178 43	2,750 00	-954 57	26 21	954 93	0 00	0 00	0 00	
3,600 00	90 00	178 43	2,750 00	-1,054 53	28 95	1,054 93	0 00	0 00	0 00	
3,700 00	90 00	178 43	2,750 00	-1,154 49	31 70	1,154 93	0 00	0 00	0 00	
3,800 00	90 00	178 43	2,750 00	-1,254 46	34 44	1,254 93	0 00	0 00	0 00	
3,900 00	90 00	178 43	2,750 00	-1,354 42	37 19	1,354 93	0 00	0 00	0 00	
4,000 00	90 00	178 43	2,750 00	-1,454 38	39 93	1,454 93	0 00	0 00	0 00	
4,100 00	90 00	178 43	2,750 00	-1,554 34	42 68	1,554 93	0 00	0 00	0 00	
4,200 00	90 00	178 43	2,750 00	-1,654 31	45 42	1,654 93	0 00	0 00	0 00	
4,300 00	90 00	178 43	2,750 00	-1,754 27	48 16	1,754 93	0 00	0 00	0 00	
4,400 00	90 00	178 43	2,750 00	-1,854 23	50 91	1,854 93	0 00	0 00	0 00	
4,500 00	90 00	178 43	2,750 00	-1,954 19	53 65	1,954 93	0 00	0 00	0 00	
4,600 00	90 00	178 43	2,750 00	-2,054 16	56 40	2,054 93	0 00	0 00	0 00	
4,700 00	90 00	178 43	2,750 00	-2,154 12	59 14	2,154 93	0 00	0 00	0 00	
4,800 00	90 00	178 43	2,750 00	-2,254 08	61 89	2,254 93	0 00	0 00	0 00	
4,900 00	90 00	178 43	2,750 00	-2,354 04	64 63	2,354 93	0 00	0 00	0 00	
5,000 00	90 00	178 43	2,750 00	-2,454 00	67 38	2,454 93	0 00	0 00	0 00	
5,100 00	90 00	178 43	2,750 00	-2,553 97	70 12	2,554 93	0 00	0 00	0 00	
5,200 00	90 00	178 43	2,750 00	-2,653 93	72 86	2,654 93	0 00	0 00	0 00	
5,300 00	90 00	178 43	2,750 00	-2,753 89	75 61	2,754 93	0 00	0 00	0 00	
5,400 00	90 00	178 43	2,750 00	-2,853 85	78 35	2,854 93	0 00	0 00	0 00	
5,500 00	90 00	178 43	2,750 00	-2,953 82	81 10	2,954 93	0 00	0 00	0 00	
5,600 00	90 00	178 43	2,750 00	-3,053 78	83 84	3,054 93	0 00	0 00	0 00	
5,700 00	90 00	178 43	2,750 00	-3,153 74	86 59	3,154 93	0 00	0 00	0 00	
5,800 00	90 00	178 43	2,750 00	-3,253 70	89 33	3,254 93	0 00	0 00	0 00	
5,900 00	90 00	178 43	2,750 00	-3,353 67	92 08	3,354 93	0 00	0 00	0 00	
6,000 00	90 00	178 43	2,750 00	-3,453 63	94 82	3,454 93	0 00	0 00	0 00	
6,100 00	90 00	178 43	2,750 00	-3,553 59	97 56	3,554 93	0 00	0 00	0 00	
6,200 00	90 00	178 43	2,750 00	-3,653 55	100 31	3,654 93	0 00	0 00	0 00	
6,300 00	90 00	178 43	2,750 00	-3,753 52	103 05	3,754 93	0 00	0 00	0 00	
6,400 00	90 00	178 43	2,750 00	-3,853 48	105 80	3,854 93	0 00	0 00	0 00	
6,500 00	90 00	178 43	2,750 00	-3,953 44	108 54	3,954 93	0 00	0 00	0 00	
6,600 00	90 00	178 43	2,750 00	-4,053 40	111 29	4,054 93	0 00	0 00	0 00	
6,700 00	90 00	178 43	2,750 00	-4,153 36	114 03	4,154 93	0 00	0 00	0 00	
6,800 00	90 00	178 43	2,750 00	-4,253 33	116 78	4,254 93	0 00	0 00	0 00	



SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Stonewall 9 Fee #4H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3339 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3339 00usft
Site:	Stonewall 9 Fee #4H	North Reference:	Grid
Well:	Stonewall 9 Fee #4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,900 00	90 00	178 43	2,750 00	-4,353 29	119 52	4,354 93	0 00	0 00	0 00
7,000 00	90 00	178 43	2,750 00	-4,453 25	122 27	4,454 93	0 00	0 00	0 00
7,100 00	90 00	178 43	2,750 00	-4,553 21	125 01	4,554 93	0 00	0 00	0 00
7,200 00	90 00	178 43	2,750 00	-4,653 18	127 75	4,654 93	0 00	0 00	0 00
7,300 00	90 00	178 43	2,750 00	-4,753 14	130 50	4,754 93	0 00	0 00	0 00
7,400 00	90 00	178 43	2,750 00	-4,853 10	133 24	4,854 93	0 00	0 00	0 00
7,431 21	90 00	178 43	2,750 00	-4,884 30	134 10	4,886 14	0 00	0 00	0 00
PBHL-Stonewall 9 Fee #4H									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PP=330° FNL Stonewall	0 00	360 00	2,646.07	-180 00	4 94	611,671 90	485,222 04	32° 40' 53.675 N	104° 22' 52.909 W
- plan hits target center									
- Point									
PBHL-Stonewall 9 Fee #	0 00	0 00	2,750 00	-4,884 30	134 10	606,967.60	485,351 20	32° 40' 7.123 N	104° 22' 51.373 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,272 54	2,272.54	0 00	0 00	KOP Start Build 12 00°/100°
3,022 54	2,750 00	-477.29	13 10	Land EOC hold 90 00°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Stonewall 9 Fee #4H
Wellbore: OH
Design: Plan #1 8-3/4" Hole



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
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	
3	3022.54	90.00	178.43	2750.00	-477.28	13.10	12.00	178.43	477.46	
4	7431.21	90.00	178.43	2750.00	-4884.30	134.10	0.00	0.00	4886.14	PBHL-Stonewall 9 Fee #4H

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PP=330' FNL Stonewall 9 #4H	2646.07	-180.00	4.94	611671.90	485222.04	32°40' 53.675 N	104°22' 52.909 W	Point
PBHL-Stonewall 9 Fee #4H	2750.00	-4884.30	134.10	606967.60	485351.20	32°40' 7.123 N	104°22' 51.373 W	Point

WELL DETAILS: Stonewall 9 Fee #4H

	Ground Level.	3339.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	611851.90	485217.10	32°40' 55.456 N	104°22' 52.968 W		

Stonewall 9 Fee #4H

Created By: Julio Pina Date: 12-Dec-11

Checked: _____ Date: _____

Reviewed: _____ Date: _____

PROJECT DETAILS: Eddy County, NM (NAN27 NME)

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: New Mexico East 3001

System Datum: Mean Sea Level

