

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC-029418A
2. Name of Operator COG Operating LLC ✓		6. If Indian, Allottee or Tribe Name N/A
3a. Address 550 W. Texas Ave., Suite 1300 Midland, TX 79701	3b. Phone No. (include area code) 432-685-4385	7. If Unit or CA/Agreement, Name and/or No. NMNM-71030X
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1730 FSL & 244 FEL SEC. 14, T17S, R31E, UNIT 1 ✓		8. Well Name and No. SKELLY UNIT #669 ✓
		9. API Well No. 30-015- 38348 -
		10. Field and Pool, or Exploratory Area Fren; Glorieta Yeso 26770
		11. County or Parish, State EDDY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Add Bottom Hole
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Location
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG permitted this well at this location:

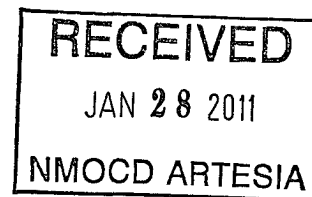
1730 FSL & 244 FEL SEC. 14, T17S, R31E, UNIT 1

COG respectfully requests permission to move this location to:

SHL: 1730 FSL & 244 FEL SEC. 14, T17S, R31E, UNIT 1

BHL: 1650 FSL & 330 FEL SEC. 14, T17S, R31E, UNIT 1

A Revised C-102 and Directional Plan are attached for your review.



14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Kelly J. Holly

Title Permitting Tech

Signature

Date

01/14/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

Date

APPROVED

JAN 24 2011

Is/ Chris Walls

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

11885 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015- 38348	Pool Code 26770	Pool Name FREN; GLORIETA-YESO
Property Code 305607	Property Name SKELLY UNIT	Well Number 669
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3918'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	14	17-S	31-E		1730	SOUTH	244	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	14	17-S	31-E		1650	SOUTH	330	EAST	EDDY
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=666771.1 N X=653996.9 E LAT.=32.832036° N LONG.=103.831983° W BOTTOM HOLE LOCATION Y=666690.5 N X=653911.4 E DETAIL 3915.6' 3918.0' 600' 3911.1' 3915.4'	Penetration Point 11659' FSL + 380' FEL S.L. SEE DETAIL GRID AZ.=226°42'36" HORIZ. DIST.=117.5' 330' 244' B.H. 1650' 1730'	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>Robyn Odom</u> Date <u>10/15/2010</u> Printed Name <u>Robyn Odom</u> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. DATE SURVEYED <u>AUGUST 11, 2010</u> Date Surveyed <u>10/12/10</u> DSS Signature & Seal of Professional Surveyor <u>RONALD J. EIDSON</u> Certificate No. <u>12641</u> EIDSON 12641 RONALD J. EIDSON 3239
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COG Operating LLC

Eddy County, NM (NAN27 NME)

Skelly Unit #669

Skelly Unit #669

OH

Plan: Plan #1 - 7-7/8" Hole

SHL = 1730' FSL & 244' FEL

BHL = 1660' FSL & 380' FEL

Top of Paddock = 1660' FSL & 380' FEL @ 5220' TVD

Standard Planning Report

14 January, 2011





Scientific Drilling
Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Skelly Unit #669
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3918.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3918.00usft
Site:	Skelly Unit #669	North Reference:	Grid
Well:	Skelly Unit #669	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" 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:	Skelly Unit #669		
Site Position:		Northing:	666,771.10 usft
From:	Map	Easting:	653,996.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	0"
		Latitude:	32° 49' 55.329 N
		Longitude:	103° 49' 55.140 W
		Grid Convergence:	0.27 °

Well:	Skelly Unit #669		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,918.00 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2011/01/14	7.80
			Dip/Angle
			(°)
			Field Strength
			(nT)
			48,992

Design:	Plan #1 - 7-7/8" 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
			(°)
			242.48

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(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	
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,089.72	2.79	242.48	2,089.67	-1.57	-3.02	2.00	2.00	0.00	242.48	
5,083.95	2.79	242.48	5,080.33	-69.03	-132.48	0.00	0.00	0.00	0.00	
5,223.67	0.00	0.00	5,220.00	-70.60	-135.50	2.00	-2.00	0.00	180.00	TG1-SU #669
6,803.67	0.00	0.00	6,800.00	-70.60	-135.50	0.00	0.00	0.00	0.00	PBHL-SU #669



Scientific Drilling Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Skelly Unit #669
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3918.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3918.00usft
Site:	Skelly Unit #669	North Reference:	Grid
Well:	Skelly Unit #669	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" 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
North HL-SU #669 - West HL-SU #669									
1,850.00	0.00	0.00	1,850.00	0.00	0.00	0.00	0.00	0.00	0.00
8-5/8" Casing									
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 2.00°/100'									
2,000.00	1.00	242.48	2,000.00	-0.20	-0.39	0.44	2.00	2.00	0.00
2,089.72	2.79	242.48	2,089.66	-1.57	-3.02	3.41	2.00	2.00	0.00
EOC hold 2.79°/100'									
2,100.00	2.79	242.48	2,099.93	-1.81	-3.47	3.91	0.00	0.00	0.00
2,200.00	2.79	242.48	2,199.81	-4.06	-7.79	8.78	0.00	0.00	0.00
2,300.00	2.79	242.48	2,299.69	-6.31	-12.11	13.66	0.00	0.00	0.00
2,400.00	2.79	242.48	2,399.58	-8.56	-16.44	18.53	0.00	0.00	0.00
2,500.00	2.79	242.48	2,499.46	-10.82	-20.76	23.41	0.00	0.00	0.00
2,600.00	2.79	242.48	2,599.34	-13.07	-25.08	28.28	0.00	0.00	0.00
2,700.00	2.79	242.48	2,699.22	-15.32	-29.41	33.16	0.00	0.00	0.00
2,800.00	2.79	242.48	2,799.10	-17.57	-33.73	38.03	0.00	0.00	0.00
2,900.00	2.79	242.48	2,898.98	-19.83	-38.05	42.91	0.00	0.00	0.00
3,000.00	2.79	242.48	2,998.86	-22.08	-42.38	47.78	0.00	0.00	0.00
3,100.00	2.79	242.48	3,098.74	-24.33	-46.70	52.66	0.00	0.00	0.00
3,200.00	2.79	242.48	3,198.62	-26.59	-51.02	57.54	0.00	0.00	0.00
3,300.00	2.79	242.48	3,298.51	-28.84	-55.35	62.41	0.00	0.00	0.00
3,400.00	2.79	242.48	3,398.39	-31.09	-59.67	67.29	0.00	0.00	0.00
3,500.00	2.79	242.48	3,498.27	-33.34	-64.00	72.16	0.00	0.00	0.00
3,600.00	2.79	242.48	3,598.15	-35.60	-68.32	77.04	0.00	0.00	0.00
3,700.00	2.79	242.48	3,698.03	-37.85	-72.64	81.91	0.00	0.00	0.00
3,800.00	2.79	242.48	3,797.91	-40.10	-76.97	86.79	0.00	0.00	0.00
3,900.00	2.79	242.48	3,897.79	-42.35	-81.29	91.66	0.00	0.00	0.00
4,000.00	2.79	242.48	3,997.67	-44.61	-85.61	96.54	0.00	0.00	0.00
4,100.00	2.79	242.48	4,097.55	-46.86	-89.94	101.41	0.00	0.00	0.00
4,200.00	2.79	242.48	4,197.44	-49.11	-94.26	106.29	0.00	0.00	0.00
4,300.00	2.79	242.48	4,297.32	-51.37	-98.58	111.16	0.00	0.00	0.00
4,400.00	2.79	242.48	4,397.20	-53.62	-102.91	116.04	0.00	0.00	0.00
4,500.00	2.79	242.48	4,497.08	-55.87	-107.23	120.91	0.00	0.00	0.00
4,600.00	2.79	242.48	4,596.96	-58.12	-111.55	125.79	0.00	0.00	0.00
4,700.00	2.79	242.48	4,696.84	-60.38	-115.88	130.66	0.00	0.00	0.00
4,800.00	2.79	242.48	4,796.72	-62.63	-120.20	135.54	0.00	0.00	0.00
4,900.00	2.79	242.48	4,896.60	-64.88	-124.53	140.41	0.00	0.00	0.00
5,000.00	2.79	242.48	4,996.48	-67.13	-128.85	145.29	0.00	0.00	0.00
5,083.95	2.79	242.48	5,080.33	-69.03	-132.48	149.38	0.00	0.00	0.00
Start Drop 2.00°/100'									
5,100.00	2.47	242.48	5,096.37	-69.37	-133.13	150.12	2.00	-2.00	0.00
5,200.00	0.47	242.48	5,196.33	-70.55	-135.41	152.69	2.00	-2.00	0.00
5,223.67	0.00	0.00	5,220.00	-70.60	-135.50	152.79	2.00	-2.00	496.50
EOC hold 0.00° - TG1-SU #669									
6,803.67	0.00	0.00	6,800.00	-70.60	-135.50	152.79	0.00	0.00	0.00
PBHL-SU #669									



Scientific Drilling
Planning Report



Database:	EDM-Julio	Local Co-ordinate Reference:	Site Skelly Unit #669
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3918.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3918.00usft
Site:	Skelly Unit #669	North Reference:	Grid
Well:	Skelly Unit #669	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 7-7/8" Hole		

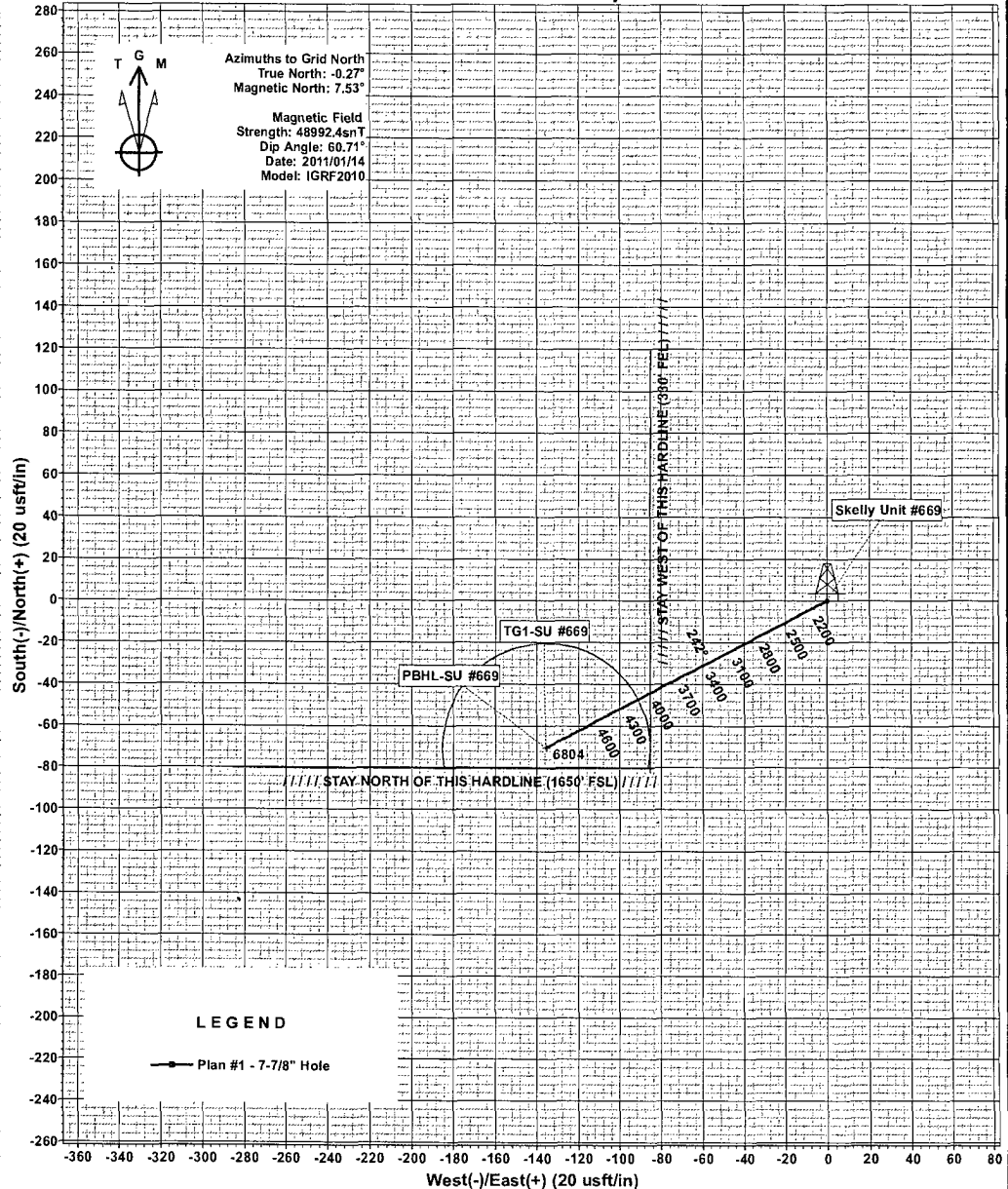
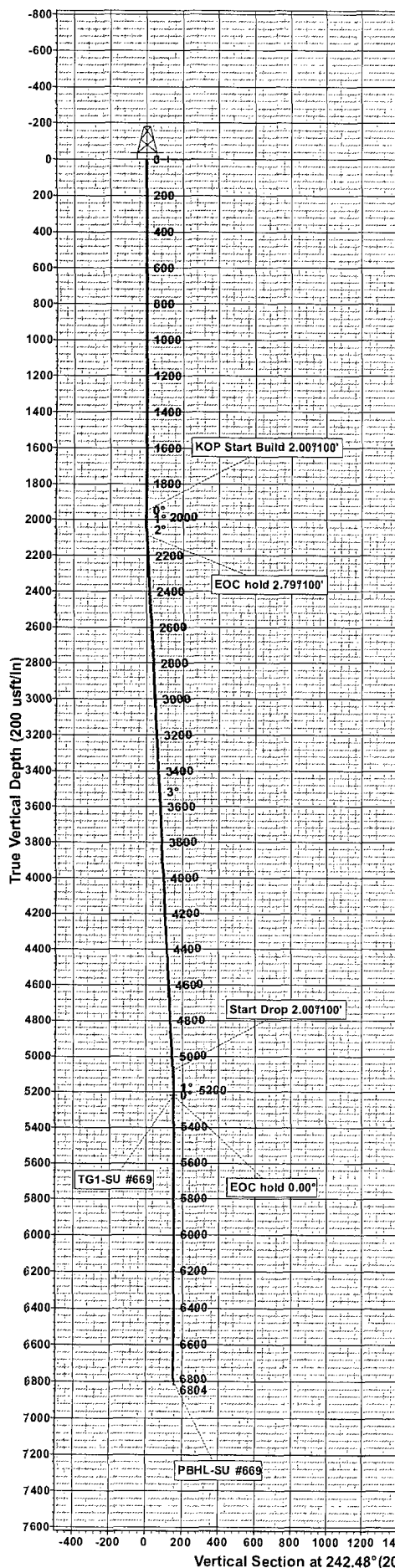
Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
									Latitude Longitude
North HL-SU #669		0.00	0.00	0.00	-80.60	-85.50	666,690.50	653,911.40	32° 49' 54.536 N 103° 49' 56.146 W
- plan misses target center by 117.50usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W200.00 H0.00 D0.00)									
West HL-SU #669		0.00	0.00	0.00	-80.60	-85.50	666,690.50	653,911.40	32° 49' 54.536 N 103° 49' 56.146 W
- plan misses target center by 117.50usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W0.00 H200.00 D0.00)									
TG1-SU #669		0.00	0.00	5,220.00	-70.60	-135.50	666,700.50	653,861.40	32° 49' 54.637 N 103° 49' 56.732 W
- plan hits target center									
- Point									
PBHL-SU #669		0.00	0.00	6,800.00	-70.60	-135.50	666,700.50	653,861.40	32° 49' 54.637 N 103° 49' 56.732 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
1,850.00	1,850.00	8-5/8" Casing		8-5/8	12-1/4

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,950.00	1,950.00	0.00	0.00	KOP Start Build 2.00°/100'
2,089.72	2,089.66	-1.57	-3.02	EOC hold 2.79°/100'
5,083.95	5,080.33	-69.03	-132.48	Start Drop 2.00°/100'
5,223.67	5,220.00	-70.60	-135.50	EOC hold 0.00°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Skelly Unit #669
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
North HL-SU #669	0.00	-80.60	-85.50	666690.50	653911.40	32°49' 54.536 N	103°49' 56.146 W	Rectangle (Sides: L 0.00 W200.00)	
West HL-SU #669	0.00	-80.60	-85.50	666690.50	653911.40	32°49' 54.536 N	103°49' 56.146 W	Rectangle (Sides: L2 00.00 W0.00)	
TG1-SU #669	5220.00	-70.60	-135.50	666700.50	653861.40	32°49' 54.637 N	103°49' 56.732 W	Point	
PBHL-SU #669	6800.00	-70.60	-135.50	666700.50	653861.40	32°49' 54.637 N	103°49' 56.732 W	Circle (Radius: 50.00)	

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	1950.00	0.00	0.00	1950.00	0.00	0.00	0.00	0.00	0.00
3	2089.72	2.79	242.48	2089.67	-1.57	-3.02	2.00	242.48	3.41
4	5083.95	2.79	242.48	5080.33	-69.03	-132.48	0.00	0.00	149.38
5	5223.67	0.00	0.00	5220.00	-70.60	-135.50	2.00	180.00	152.79 TG1-SU #669
6	6803.67	0.00	0.00	6800.00	-70.60	-135.50	0.00	0.00	152.79 PBHL-SU #669

WELL DETAILS: Skelly Unit #669							
Ground Level:				3918.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	666771.10	653996.90	32°49' 55.329 N	103°49' 55.140 W		

PROJECT DETAILS: Eddy County, NM (NAN27 NME)									
Geodetic System: US State Plane 1927 (Exact solution)					Created By: Julio Pina				
Datum: NAD 1927 (NADCON CONUS)					Date: 14-Jan-11				
Ellipsoid: Clarke 1866					Checked: _____				
Zone: New Mexico East 3001					Date: _____				
System Datum: Mean Sea Level					Reviewed: _____				
					Date: _____				
					Approved: _____				
					Date: _____				