

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
1220 S. St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

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

MAR 06 2009

Form C-104
Revised June 10, 2003

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address COG Operating LLC 550 W. Texas Avenue, Suite 1300 Midland, TX 79701		² OGRID Number 229137
		³ Reason for Filing Code/ Effective Date NW effective 02/26/09
⁴ API Number 30 - 015-36680	⁵ Pool Name Fren;Glorieta Yeso	⁶ Pool Code 26770
⁷ Property Code 305607	⁸ Property Name Skelly Unit	⁹ Well Number 988

I. ¹⁰ Surface Location

Ul or lot no. H	Section 22	Township 17S	Range 31E	Lot.Idn	Feet from the 1650	North/South Line North	Feet from the 1250	East/West line East	County Eddy
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¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 02/26/09	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ POD	²¹ O/G	²² POD ULSTR Location and Description
15694	Navajo Refining Co. Pipeline Div.	5105212	O	
221115	Frontier Field Services	5105214	G	

IV. Produced Water

²³ POD 5105216	²⁴ POD ULSTR Location and Description
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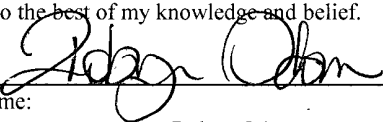
V. Well Completion Data

²⁵ Spud Date 01/06/09	²⁶ Ready Date 02/20/09	²⁷ TD 6716	²⁸ PBTB 6667	²⁹ Perforations 5066 - 6480	³⁰ DHC, MC ☒
³¹ Hole Size 17-1/2	³² Casing & Tubing Size 13-3/8	³³ Depth Set 448	³⁴ Sacks Cement 475		
11	8-5/8	1800	700		
7-7/8	5-1/2	6716	1100		
	2-7/8	6247			

VI. Well Test Data

³⁵ Date New Oil 02/26/09	³⁶ Gas Delivery Date 02/26/09	³⁷ Test Date 02/28/09	³⁸ Test Length 24	³⁹ Tbg. Pressure 70	⁴⁰ Csg. Pressure 70
⁴¹ Choke Size	⁴² Oil 11	⁴³ Water 684	⁴⁴ Gas 10	⁴⁵ AOF	⁴⁶ Test Method P

⁴⁷ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name: Robyn Odom

Title: Regulatory Analyst

E-mail Address: rodom@conchoresources.com

Date: 03/05/09 Phone: 432-685-4385

OIL CONSERVATION DIVISION

DENIED

Appr

By Jacqui Reeves

Title:

Appr

Date 9/30/09 (575) 748-1283 x 03

see attachment

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State of New Mexico
Geology, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 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
For Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015- 26680	Pool Code 26770	Pool Name FREN; GLORIETA YESO
Property Code 305607	Property Name SKELLY UNIT	Well Number 988
OGRID No 229137	Operator Name COG OPERATING, LLC	Elevation 3862'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West line	County
H	22	17-S	31-E		1650	NORTH	1250	EAST	EDDY

Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South Line	Feet from the	East/West line	County
H	22	17-S	31-E		1650	NORTH	990	EAST	EDDY

Dedicated Acres 40	Joint or Infill ☒	Consolidation Code	Order No.
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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

3861.8' 3861.8' 600' 600' 3857.4' 3860.1' SURFACE DETAIL GRID AZ. - 89°45'05" HORIZ. DIST. - 280.0' PENETRATION POINT GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=663351.2 N X=647731.6 E LAT.=32 822716" N LONG.=103.852430" W BOTTOM HOLE LOCATION Y=663352.3 N X=647991.6 E	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. <i>Phyllis A. Edwards</i> Signature Date 5/30/08 Phyllis A. Edwards Printed Name Regulatory Analyst 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. MAY 20, 2008 Date Surveyed Rev. 5/30/08 DSS Signature & Seal of Professional Surveyor <i>Ronald J. Edson</i> 08.11.0624 Certificate No. EARY C. EDSON 12641 RONALD J. EDSON 3239
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API # 30-015-36680

COG Operating

Eddy County, NM (NAN27 NME)

Skelly Unit #988

Skelly Unit #988

OH

Design: Actual

Standard Survey Report

17 January, 2009



Scientific Drilling
Directional Drilling Operations

Scientific Drilling

Survey Report



Company:	COG Operating	Local Co-ordinate Reference:	Well Skelly Unit #988
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Site:	Skelly Unit #988	MD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Well:	Skelly Unit #988	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 2003 16 Single User Db

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 #988		
Site Position:		Northing:	663,351 200 ft
From:	Map	Easting:	647,731 600 ft
Position Uncertainty:	0 00 ft	Slot Radius:	"
		Latitude:	32° 49' 21 777 N
		Longitude:	103° 51' 8 750 W
		Grid Convergence:	0 26 "

Well	Skelly Unit #988		
Well Position	+N/-S	0 00 ft	Northing: 663,351 200 ft
	+E/-W	0 00 ft	Easting: 647,731 600 ft
Position Uncertainty	0 00 ft	Wellhead Elevation:	ft
		Latitude:	32° 49' 21 777 N
		Longitude:	103° 51' 8 750 W
		Ground Level:	3,862 00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF200510	1/17/2009	8 04
			Dip Angle (°)
			60 77
			Field Strength (nT)
			49,210

Design	Actual		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0 00	0 00	0 00
			Direction (°)
			89 76

Survey Program	Date	1/17/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100 00	1,757 00	GYRO (OH)	Keeper	Standard Wireline Keeper ver 1 0 2
1,843 00	5,420 00	MWD (OH)	MWD	MWD - Standard

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)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
100 00	0 32	350 85	100 00	0 28	-0 04	-0 04	0 32	0 32	0 00
200 00	0 27	338 23	200 00	0 77	-0 18	-0 17	0 08	-0 05	-12 62
300 00	0 42	12 95	300 00	1 35	-0 18	-0 18	0 25	0 15	34 72
400 00	0 42	351 96	399 99	2 07	-0 15	-0 14	0 15	0 00	-20 99
500 00	0 63	347 33	499 99	2 97	-0 32	-0 31	0 21	0 21	-4 63
600 00	0 50	345 08	599 98	3 92	-0 56	-0 54	0 13	-0 13	-2 25
700 00	0 71	353 70	699 98	4 96	-0 74	-0 71	0 23	0 21	8 62
800 00	0 74	344 28	799 97	6 20	-0 98	-0 95	0 12	0 03	-9 42
900 00	0 78	353 40	899 96	7 50	-1 23	-1 20	0 13	0 04	9 12
1,000 00	0 62	342 72	999 95	8 69	-1 47	-1 43	0 21	-0 16	-10 68
1,100 00	0 82	355 92	1,099 95	9 92	-1 68	-1 64	0 26	0 20	13 20

Scientific Drilling
Survey Report



Company:	COG Operating	Local Co-ordinate Reference:	Well Skelly Unit #988
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Site:	Skelly Unit #988	MD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Well:	Skelly Unit #988	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 2003 16 Single User Db

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)
1,200 00	1 02	358 38	1,199 93	11 52	-1 76	-1 71	0 20	0 20	2 46
1,300 00	1 36	1 76	1,299 91	13 60	-1 75	-1 69	0 35	0 34	3 38
1,400 00	1 67	13 84	1,399 88	16 20	-1 36	-1 29	0 44	0 31	12 08
1,500 00	2 03	20 48	1,499 83	19 27	-0 39	-0 31	0 42	0 36	6 64
1,600 00	1 72	20 41	1,599 77	22 34	0 75	0 84	0 31	-0 31	-0 07
1,700 00	1 77	21 49	1,699 73	25 18	1 84	1 94	0 06	0 05	1 08
1,757 00	1 65	27 46	1,756 70	26 73	2 54	2 65	0 38	-0 21	10 47
Last gyro survey									
1,843 00	1 52	11 25	1,842 67	28 95	3 33	3 45	0 54	-0 15	-18 85
1,907 00	1 81	82 39	1,906 65	29 91	4 50	4 63	3 05	0 45	111 16
2,000 00	4 51	109 87	1,999 50	28 87	9 40	9 52	3 25	2 90	29 55
2,093 00	5 14	96 00	2,092 17	27 19	16 98	17 09	1 42	0 68	-14 91
2,188 00	4 15	101 36	2,186 86	26 07	24 58	24 69	1 14	-1 04	5 64
2,281 00	4 37	90 66	2,279 61	25 36	31 42	31 53	0 89	0 24	-11 51
2,376 00	4 79	96 20	2,374 30	24 89	38 99	39 09	0 64	0 44	5 83
2,469 00	5 32	99 10	2,466 94	23 79	47 10	47 20	0 63	0 57	3 12
2,562 00	4 44	96 06	2,559 60	22 73	54 94	55 03	0 99	-0 95	-3 27
2,656 00	5 05	94 65	2,653 28	22 01	62 68	62 77	0 66	0 65	-1 50
2,757 00	4 15	95 73	2,753 95	21 28	70 75	70 84	0 90	-0 89	1 07
2,850 00	5 54	104 60	2,846 62	19 82	78 44	78 52	1 69	1 49	9 54
2,944 00	6 00	105 32	2,940 14	17 37	87 57	87 64	0 50	0 49	0 77
3,037 00	5 79	98 08	3,032 65	15 43	96 90	96 97	0 83	-0 23	-7 78
3,131 00	5 21	102 82	3,126 22	13 82	105 76	105 82	0 78	-0 62	5 04
3,225 00	5 68	92 59	3,219 80	12 66	114 57	114 62	1 15	0 50	-10 88
3,319 00	5 44	93 63	3,313 36	12 17	123 66	123 71	0 28	-0 26	1 11
3,413 00	5 23	95 40	3,406 95	11 48	132 37	132 42	0 28	-0 22	1 88
3,507 00	4 72	95 18	3,500 59	10 73	140 49	140 53	0 54	-0 54	-0 23
3,600 00	4 43	96 41	3,593 30	9 98	147 87	147 91	0 33	-0 31	1 32
3,693 00	5 07	93 35	3,685 98	9 34	155 54	155 58	0 74	0 69	-3 29
3,786 00	4 87	94 55	3,778 63	8 79	163 58	163 62	0 24	-0 22	1 29
3,879 00	4 88	95 38	3,871 29	8 11	171 45	171 49	0 08	0 01	0 89
3,973 00	5 28	85 53	3,964 92	8 07	179 75	179 78	1 02	0 43	-10 48
4,066 00	5 00	97 58	4,057 55	7 87	188 03	188 06	1 20	-0 30	12 96
4,159 00	4 70	98 77	4,150 22	6 75	195 81	195 84	0 34	-0 32	1 28
4,285 00	4 30	99 25	4,275 83	5 20	205 58	205 60	0 32	-0 32	0 38
4,379 00	5 09	88 44	4,369 52	4 75	213 22	213 24	1 26	0 84	-11 50
4,471 00	4 79	90 19	4,461 18	4 85	221 14	221 16	0 36	-0 33	1 90
4,564 00	4 67	96 09	4,553 86	4 44	228 79	228 81	0 54	-0 13	6 34
4,657 00	4 40	96 75	4,646 57	3 61	236 10	236 11	0 30	-0 29	0 71
4,751 00	4 24	95 25	4,740 30	2 87	243 14	243 15	0 21	-0 17	-1 60
4,844 00	4 19	93 96	4,833 05	2 32	249 95	249 96	0 12	-0 05	-1 39
4,906 00	3 75	88 56	4,894 90	2 22	254 24	254 25	0 93	-0 71	-8 71
4,968 00	2 26	87 32	4,956 81	2 33	257 49	257 50	2 41	-2 40	-2 00
5,061 00	0 30	308 67	5,049 79	2 56	259 13	259 14	2 68	-2 11	-149 09
5,154 00	0 63	350 20	5,142 79	3 22	258 85	258 86	0 49	0 35	44 66
5,247 00	0 32	305 33	5,235 79	3 87	258 55	258 57	0 50	-0 33	-48 25
5,341 00	0 50	254 93	5,329 78	3 92	257 94	257 96	0 41	0 19	-53 62
5,372 00	0 37	254 79	5,360 78	3 86	257 72	257 73	0 42	-0 42	-0 45
Last MWD Survey									
5,420 00	0 37	254 79	5,408 78	3 78	257 42	257 43	0 00	0 00	0 00
Projection to Bit									

Scientific Drilling
Survey Report



Company:	COG Operating	Local Co-ordinate Reference:	Well Skelly Unit #988
Project:	Eddy County, NM (NAN27 NME)	TVD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Site:	Skelly Unit #988	MD Reference:	Ground Elev @ 3862 00ft (Rig ?)
Well:	Skelly Unit #988	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 2003 16 Single User Db

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL-SU #988	0 00	0 00	6,700 00	1 10	260 00	663,352 300	647,991 600	32° 49' 21 776 N	103° 51' 5 703 W
- actual wellpath misses by 1291 22ft at 5420 00ft MD (5408 78 TVD, 3 78 N, 257 42 E)									
- Point									
PP-SU #988	0 00	0 00	5,025 00	1 10	260 00	663,352 300	647,991 600	32° 49' 21 776 N	103° 51' 5 703 W
- actual wellpath misses by 1 66ft at 5036 22ft MD (5025 01 TVD, 2 49 N, 259 09 E)									
- Point									

Checked By. _____	Approved By. _____	Date _____
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COG Operating

Scientific Drilling for COG Operating
Site: Eddy County, NM (NAN27 NME)
Well: Skelly Unit #988
Wellbore: OH
Design: Plan #3 vs Actual - 7-7/8" Hole

