



PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

30-015-38379



March 29, 2012

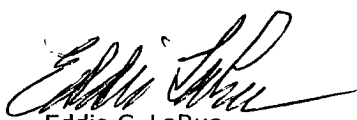
COG, LLC
Fasken Center, Tower II
550 West Texas Ave, Suite 1300
Midland, TX 79701

RE: Skelly Unit #814
2215' FSL & 555' FEL
Sec. 23, T17S, R31E
Eddy County, New Mexico

Dear Sir,

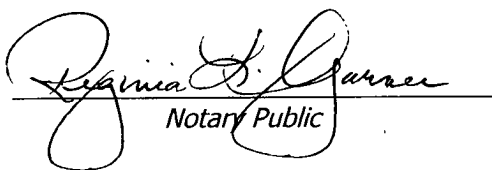
The attached is the Deviation Survey for the above captioned well.

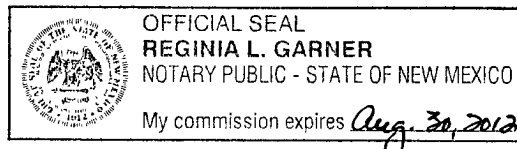
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 29th day of March, 2012.


Notary Public



Pason DataHub Deviation Survey
 # Well Dossier 1332107437 - Skelly Unit #814
 #

# Date	Depth	Deviation	Direction
3/19/2012	258	0.3	0
3/19/2012	345	0.2	0
3/19/2012	431	0.3	0
3/19/2012	518	0.1	0
3/19/2012	575	0.2	0
3/20/2012	814	0.2	0
3/21/2012	1314	0.5	0
3/21/2012	1810	1.1	0
3/23/2012	1914	1.1	60.4
3/23/2012	2008	0.4	21.2
3/23/2012	2102	1.1	267.5
3/23/2012	2196	2.7	281.4
3/23/2012	2290	4.3	281.4
3/23/2012	2384	4.4	277.0
3/23/2012	2480	5.3	281.9
3/23/2012	2580	6.0	286.6
3/23/2012	2674	5.3	285.7
3/23/2012	2768	5.7	282.4
3/23/2012	2862	6.8	279.4
3/23/2012	2956	6.2	277.5
3/23/2012	3050	5.3	278.4
3/23/2012	3145	6.0	279.4
3/24/2012	3238	5.5	278.4
3/24/2012	3332	5.3	280.5
3/24/2012	3426	6.7	277.8
3/24/2012	3519	6.5	279.8
3/24/2012	3613	6.3	278.0
3/24/2012	3707	6.1	279.9
3/24/2012	3801	6.0	275.6
3/24/2012	3895	6.1	275.6
3/24/2012	3989	5.1	279.1
3/24/2012	4083	4.7	280.6
3/24/2012	4146	6.0	274.1
3/24/2012	4273	5.9	273.8
3/24/2012	4367	5.9	272.7
3/24/2012	4461	5.4	281.4
3/24/2012	4555	5.4	279.4
3/24/2012	4649	5.4	280.6
3/25/2012	4742	5.1	282.4
3/25/2012	4836	5.0	279.2
3/25/2012	4931	5.9	278.7

#	Date	Depth	Deviation	Direction
	3/25/2012	5024	5.6	279.2
	3/25/2012	5118	5.6	280.1
	3/25/2012	5212	5.7	281.4
	3/25/2012	5306	5.9	282.4
	3/25/2012	5399	5.9	280.3
	3/26/2012	5994	5.9	284.5
	3/26/2012	5587	6.2	279.8
	3/26/2012	5650	6.5	278.5
	3/26/2012	5682	6.2	282.8
	3/26/2012	5775	6.0	285.2
	3/26/2012	5869	5.0	279.9
	3/26/2012	5964	4.7	280.6
	3/26/2012	6152	4.6	278.9
	3/26/2012	6246	4.4	281.0
	3/26/2012	6339	4.7	275.2
	3/26/2012	6478	4.4	274.8
	3/27/2012	6527	4.5	277.5
	3/27/2012	6620	4.6	275.9
#	EOF			

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

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88211

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST FRANCIS DR., SANTA FE, NM 87505

RECEIVED

JUN 28 2012

State of New Mexico

Energy, Minerals and Natural Resources Department

OHIO
NIMOC DARTESIA
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

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-38379	Pool Code 26770	Pool Name Fren; Glorieta-Yeso
Property Code 305607	Property Name SKELLY UNIT	Well Number 814
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3880'

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	23	17-S	31-E		2215	SOUTH	555	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	23	17-S	31-E		2296	SOUTH	972	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=661974.8 N X=653710.7 E LAT.=32.818856° N LONG.=103.832989° W BOTTOM HOLE LOCATION Y=662066.4 N X=653275.4 E DETAIL 3882.5' 3881.5' 600' 600' 3876.1' 3877.6' GRID AZ.-281°53'30" HORZ. DIST.-445.0' B.H. 972' S.L. 555' 2296' 2215'	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>Chasity Jackson</i> 6/26/12 Signature Date Chasity Jackson Printed Name 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 AUGUST 27, 2010 SIGNATURE AND SEAL OF PROFESSIONAL SURVEYOR RONALD EIDSON CERTIFICATE NO. CARY EIDSON 12641 RONALD EIDSON 3239
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Childress Directional Drilling

Survey Report

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well SKELLY UNIT 814
Project:	EDDY COUNTY, NEW MEXICO	TVD Reference:	RKB @ 3890.00usft (Original Well Elev)
Site:	SKELLY UNIT	MD Reference:	RKB @ 3890.00usft (Original Well Elev)
Well:	SKELLY UNIT 814	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	ORIGINAL HOLE	Database:	EDM 5000 1 Single User Db

Project	EDDY COUNTY, NEW MEXICO, Eddy County, New Mexico		
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			
Site Position:		Northing:	661,974.80 usft	Latitude: 32° 49' 7.883 N
From:	Map	Easting:	653,710.70 usft	Longitude: 103° 49' 58.760 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.27 °

Well	SKELLY UNIT 814			
Well Position	+N/-S	0.00 usft	Northing:	661,974.80 usft
	+E/-W	0.00 usft	Easting:	653,710.70 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level: 3,880.00 usft

Wellbore	OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)
	IGRF2010	3/21/2012	7.66	60.67
				Field Strength (nT)
				48,866

Design	ORIGINAL HOLE			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	280.86

Survey Program	Date: 3/27/2012			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	1,790.00	Gyro (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
1,914.00	3,663.00	MWD Surveys (OH)	MWD	MWD - Standard

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)	
1,790.00	1.42	55.73	1,789.91	6.23	4.09	-2.84	0.00	0.00	0.00	
1,914.00	1.10	60.40	1,913.88	7.69	6.39	-4.83	0.27	-0.26	3.77	
2,008.00	0.40	21.20	2,007.87	8.44	7.29	-5.57	0.88	-0.74	-41.70	
2,101.00	1.10	267.50	2,100.87	8.70	6.52	-4.76	1.41	0.75	-122.26	
2,196.00	2.70	281.40	2,195.81	9.11	3.41	-1.64	1.74	1.68	14.63	
2,290.00	4.30	281.40	2,289.63	10.24	-2.21	4.10	1.70	1.70	0.00	
2,384.00	4.40	277.00	2,383.36	11.38	-9.24	11.22	0.37	0.11	-4.68	
2,480.00	5.30	281.90	2,479.02	12.74	-17.24	19.33	1.03	0.94	5.10	
2,580.00	6.00	286.60	2,578.53	15.18	-26.77	29.15	0.84	0.70	4.70	
2,674.00	5.30	285.70	2,672.07	17.76	-35.65	38.36	0.75	-0.74	-0.96	

Childress Directional Drilling

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Site:	SKELLY UNIT	MD Reference:	RKB @ 3890 00usft (Original Well Elev)
Well:	SKELLY UNIT 814	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	ORIGINAL HOLE	Database:	EDM 5000.1 Single User Db

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)
2,768.00	5.70	282.40	2,765.64	19.94	-44.39	47.35	0.54	0.43	-3.51
2,862.00	6.80	279.40	2,859.08	21.85	-54.44	57.58	1.22	1.17	-3.19
2,956.00	6.20	277.50	2,952.48	23.42	-64.97	68.21	0.68	-0.64	-2.02
3,050.00	5.30	278.40	3,046.00	24.72	-74.29	77.62	0.96	-0.96	0.96
3,145.00	6.00	279.40	3,140.54	26.17	-83.53	86.97	0.74	0.74	1.05
3,238.00	5.70	280.10	3,233.06	27.77	-92.87	96.44	0.33	-0.32	0.75
3,333.00	5.30	280.50	3,327.62	29.40	-101.83	105.55	0.42	-0.42	0.42
3,427.00	6.70	277.80	3,421.10	30.94	-111.53	115.37	1.52	1.49	-2.87
3,521.00	6.50	278.70	3,514.48	32.49	-122.23	126.16	0.24	-0.21	0.96
3,614.00	6.30	278.00	3,606.90	33.99	-132.48	136.51	0.23	-0.22	-0.75
3,708.00	6.10	279.90	3,700.35	35.57	-142.51	146.66	0.30	-0.21	2.02
3,802.00	6.00	275.60	3,793.83	36.91	-152.32	156.55	0.49	-0.11	-4.57
3,896.00	6.10	275.60	3,887.30	37.87	-162.18	166.41	0.11	0.11	0.00
3,990.00	5.10	279.10	3,980.85	39.02	-171.28	175.56	1.12	-1.06	3.72
4,085.00	4.70	280.60	4,075.51	40.41	-179.27	183.67	0.44	-0.42	1.58
4,178.00	6.00	274.10	4,168.10	41.45	-187.86	192.31	1.54	1.40	-6.99
4,272.00	5.90	273.80	4,261.59	42.13	-197.59	201.98	0.11	-0.11	-0.32
4,366.00	5.90	272.70	4,355.10	42.67	-207.23	211.56	0.12	0.00	-1.17
4,460.00	5.40	281.40	4,448.64	43.78	-216.39	220.77	1.05	-0.53	9.26
4,554.00	5.40	279.20	4,542.22	45.36	-225.10	229.61	0.22	0.00	-2.34
4,648.00	5.40	280.60	4,635.81	46.88	-233.81	238.45	0.14	0.00	1.49
4,742.00	5.10	282.40	4,729.41	48.59	-242.24	247.05	0.36	-0.32	1.91
4,835.00	5.00	279.20	4,822.05	50.12	-250.28	255.24	0.32	-0.11	-3.44
4,930.00	5.90	278.70	4,916.62	51.52	-259.19	264.26	0.95	0.95	-0.53
5,023.00	5.60	279.40	5,009.15	52.99	-268.39	273.57	0.33	-0.32	0.75
5,118.00	5.60	280.10	5,103.70	54.56	-277.53	282.84	0.07	0.00	0.74
5,212.00	5.70	281.40	5,197.24	56.29	-286.62	292.09	0.17	0.11	1.38
5,306.00	5.90	282.40	5,290.76	58.25	-295.91	301.59	0.24	0.21	1.06
5,399.00	5.90	280.30	5,383.27	60.13	-305.28	311.15	0.23	0.00	-2.26
5,494.00	5.90	284.50	5,477.77	62.22	-314.82	320.90	0.45	0.00	4.42
5,587.00	6.20	279.80	5,570.25	64.27	-324.39	330.69	0.62	0.32	-5.05
5,682.00	6.20	282.80	5,664.69	66.28	-334.45	340.95	0.34	0.00	3.16
5,775.00	6.00	285.20	5,757.17	68.67	-344.04	350.81	0.35	-0.22	2.58
5,869.00	5.00	279.90	5,850.73	70.66	-352.81	359.81	1.19	-1.06	-5.64
5,964.00	4.70	280.60	5,945.39	72.09	-360.72	367.84	0.32	-0.32	0.74
6,057.00	4.70	279.60	6,038.08	73.43	-368.22	375.46	0.09	0.00	-1.08
6,152.00	4.60	278.90	6,132.77	74.67	-375.82	383.16	0.12	-0.11	-0.74
6,246.00	4.40	281.00	6,226.48	75.94	-383.08	390.53	0.28	-0.21	2.23
6,339.00	4.70	275.20	6,319.18	76.96	-390.38	397.89	0.59	0.32	-6.24
6,433.00	4.40	274.80	6,412.89	77.61	-397.81	405.31	0.32	-0.32	-0.43
6,527.00	4.50	277.50	6,506.61	78.40	-405.06	412.57	0.25	0.11	2.87
6,620.00	4.60	275.90	6,599.31	79.26	-412.38	419.93	0.17	0.11	-1.72
6,689.00	4.50	279.60	6,668.09	79.99	-417.81	425.39	0.45	-0.14	5.36

Childress Directional Drilling

Survey Report

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	ORIGINAL HOLE	Database:	EDM 5000.1 Single User Db

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)
PBHL									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,740.00	6,718.94	80.66	-421.75	Survey @ 6740' MD INC 4.5°, AZM 279.6°

Checked By: _____	Approved By: _____	Date: _____
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