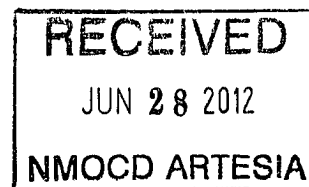


OPERATOR _____ COG _____
WELL/LEASE _____ Skelly Unit 803 _____
COUNTY _____ Eddy _____



STATE OF NEW MEXICO
DEVIATION REPORT

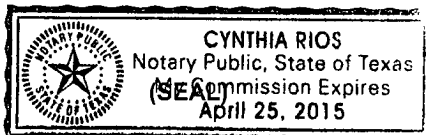
30-015-38445

347	1.76
565	1.07
932	1.07
1375	0.33
1770	2.06
1836	2.19
1899	1.34
2057	2.06
2121	2.71
2185	3.55
2248	4.39
2374	5.88
2470	5.89
2572	5.64
2666	6.20
2761	5.83
2857	6.59
2950	6.45
3046	6.39
3141	6.35
3235	6.49
3330	6.19
3521	5.93
3616	5.74
3711	5.67
3807	5.47
3902	5.87
3997	6.21
4188	6.37
4283	5.78
4378	5.95
4473	6.14
4569	5.30
4633	4.46
4697	3.28
4891	0.71
5175	0.75
5650	0.50
6149	0.94
6674	1.17

SIGNED BY: R. Scandolari
RON SCANDOLARI, VP-CONTRACT DRILLING

STATE OF TEXAS
COUNTY OF MIDLAND

ON THIS 18 DAY OF April, 2012, BEFORE ME, C RIOS, A NOTARY
PUBLIC, PERSONALLY APPEARED RON SCANDOLARI, WHO ACKNOWLEDGED AND EXECUTED
THIS DOCUMENT. WITNESS MY HAND AND OFFICIAL SEAL.



Cynthia Rios
NOTARY PUBLIC



COG Operating LLC

Eddy County, NM (NAD27 NME)

Skelly Unit #803

Skelly Unit #803

OH - Job #32D0312377

Design: Actual

SDI Standard Survey Report

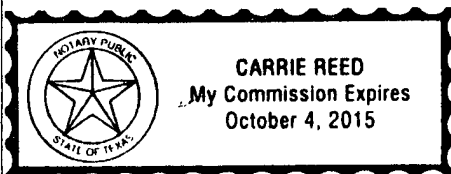
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 14th of May, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Skelly Unit #803
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RF @ 3880 00usft (Basic #35)
Site:	Skelly Unit #803	MD Reference:	RF @ 3880 00usft (Basic #35)
Well:	Skelly Unit #803	North Reference:	Grid
Wellbore:	OH - Job #32D0312377	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Project	Eddy County, NM (NAD27 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 #803		
Site Position:		Northing:	661,588 00 usft
From:	Map	Easting:	652,807.60 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 49' 4 098 N
		Longitude:	103° 50' 9 364 W
		Grid Convergence:	0 27 °

Well	Skelly Unit #803		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0 00 usft	Easting:
Position Uncertainty	0 00 usft	Wellhead Elevation:	usft
		Latitude:	32° 49' 4 098 N
		Longitude:	103° 50' 9 364 W
		Ground Level:	3,868 00 usft

Wellbore	OH - Job #32D0312377		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	03/31/12	7 66
			Dip Angle
			(°)
			60 67
			Field Strength
			(nT)
			48,862

Design	Actual		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			Direction
			(°)
			228 43

Survey Program	Date 04/11/12		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
100 00	1,730 00	Gyro (OH - Job #32D0312377)	Keeper
1,836 00	4,878 00	MWD (OH - Job #32D0312377)	MWD
			Standard Wireline Keeper ver 1 0 2
			MWD - Standard

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
100 00	1 01	170 95	99 99	-0 87	0 14	170 95	0 88
200 00	1 15	159 46	199 98	-2 68	0 63	166 79	2 75
300 00	1 12	177 23	299.96	-4 60	1 03	167 38	4 71
400 00	1 00	184 08	399 94	-6 44	1.01	171 06	6 52
500.00	0 79	177 20	499 93	-8 00	0 99	172 98	8 06
600 00	0 73	166.79	599.92	-9 31	1 16	172.87	9 38
700 00	0 70	191 87	699 91	-10.53	1 18	173 58	10 60
800 00	0 78	180 71	799 90	-11 81	1 05	174 92	11 85
900 00	0 64	197 82	899 90	-13 02	0 87	176.17	13 05
1,000 00	0 57	179 58	999 89	-14.05	0 70	177 13	14 07



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Skelly Unit #803
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RF @ 3880 00usft (Basic #35)
Site:	Skelly Unit #803	MD Reference:	RF @ 3880 00usft (Basic #35)
Well:	Skelly Unit #803	North Reference:	Grid
Wellbore:	OH - Job #32D0312377	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,100 00	0 50	181 46	1,099 89	-14 98	0 70	177 34	15 00
1,200 00	0 58	175 04	1,199 88	-15 92	0 73	177 38	15 94
1,300 00	0 57	160 89	1,299 88	-16 90	0 94	176 83	16 92
1,400 00	0 52	124 70	1,399 87	-17 62	1 47	175 23	17 69
1,500 00	1 29	75 26	1,499 86	-17 60	2 93	170 54	17 84
1,600 00	2 24	63 84	1,599 81	-16 45	5 78	160 65	17 43
1,700 00	2 31	62 70	1,699 73	-14 66	9 32	147 56	17 37
1,730 00	2 18	60 47	1,729 71	-14 10	10 35	143 72	17 50
Gyro Tie-in							
1,836 00	2 19	58 78	1,835 63	-12 06	13 84	131 07	18 36
1,899 00	1 34	49 84	1,898 60	-10 96	15 43	125 39	18 93
1,994 00	0 79	238 17	1,993 60	-10 59	15 73	123 96	18 96
2,058 00	2 06	234 11	2,057 58	-11 50	14 42	128 57	18 44
2,121 00	2 71	237 15	2,120 52	-12 97	12 25	136 63	17 84
2,185 00	3 55	239 30	2,184 42	-14 80	9 28	147 93	17 47
2,248 00	4 39	231 60	2,247 27	-17 30	5 71	161 73	18 21
2,311 00	5 16	227 87	2,310 05	-20 69	1 72	175 25	20 76
2,374 00	5 88	229 35	2,372 76	-24 70	-2 83	186 54	24 86
2,470 00	5 89	228 53	2,468 26	-31 16	-10 25	198 21	32 81
2,572 00	5 64	227 63	2,569 74	-38 01	-17 88	205 19	42 00
2,666 00	6 20	234 71	2,663 24	-44 05	-25 43	210 00	50 87
2,761 00	5 83	235 82	2,757 72	-49 73	-33 61	214 06	60 02
2,857 00	6 59	239 63	2,853 15	-55 25	-42 40	217 50	69 64
2,950 00	6 45	241 67	2,945 55	-60 43	-51 60	220 50	79 46
3,046 00	6 39	235 27	3,040 95	-66 03	-60 74	222 61	89 72
3,141 00	6 35	228 17	3,135 37	-72 54	-69 00	223 56	100 12
3,235 00	6 49	228 63	3,228 78	-79 52	-76 86	224 02	110 59
3,330 00	6 19	228 48	3,323 19	-86 47	-84 72	224 42	121 05
3,425 00	5 75	231 07	3,417 68	-92 85	-92 26	224 82	130 89
3,521 00	5 93	230 71	3,513 18	-99 01	-99 84	225 24	140 61
3,616 00	5 74	233 63	3,607 69	-104 94	-107 46	225 68	150 20
3,711 00	5 67	235 72	3,702 22	-110 40	-115 16	226 21	159 53
3,807 00	5 47	237 69	3,797 77	-115 52	-122 95	226 79	168 70
3,902 00	5 87	239 18	3,892 30	-120 42	-130 95	227 40	177 90
3,997 00	6 21	241 60	3,986 77	-125 36	-139 64	228 09	187 65
4,093 00	6 04	231 72	4,082 23	-130 96	-148 17	228 53	197 75
4,188 00	6 37	229 71	4,176 67	-137 46	-156 12	228 64	208 01
4,283 00	5 78	229 81	4,271 14	-143 96	-163 79	228 69	218 06
4,378 00	5 95	229 64	4,365 64	-150 23	-171 20	228 73	227 77
4,473 00	6 14	229 45	4,460 11	-156 72	-178 81	228 77	237 77
4,569 00	5 30	229 32	4,555 63	-162 95	-186 07	228 79	247 34
4,633 00	4 46	229 64	4,619 40	-166 49	-190 21	228 80	252 78
4,697 00	3 28	232 28	4,683 25	-169 22	-193 55	228 84	257 10
4,792 00	1 56	228 55	4,778 17	-171 74	-196 67	228 87	261 10



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Skelly Unit #803
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	RF @ 3880 00usft (Basic #35)
Site:	Skelly Unit #803	MD Reference:	RF @ 3880 00usft (Basic #35)
Well:	Skelly Unit #803	North Reference:	Grid
Wellbore:	OH - Job #32D0312377	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
4,827 00	1 05	218 44	4,813 16	-172 31	-197 23	228 86	261 90
Last MWD Survey							
4,878 00	1 05	218 44	4,864 15	-173 04	-197 81	228 82	262 81
Projection to Bit - PBHL-Skelly #803 - TG1-Skelly #803							

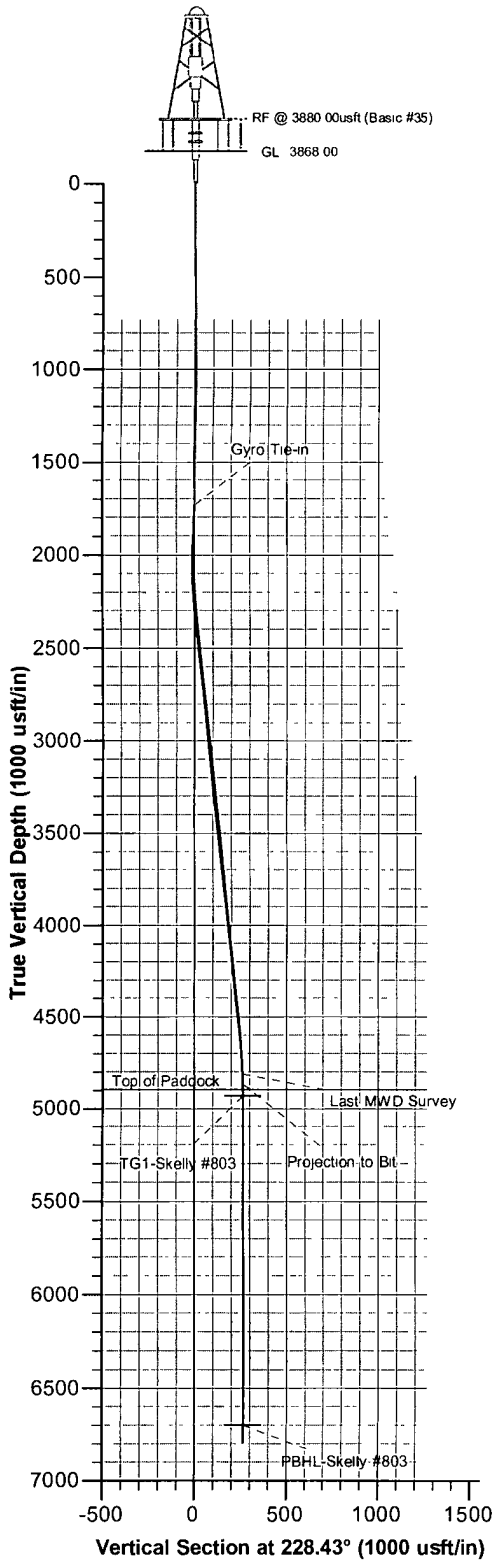
Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,730 00	1,729 71	-14 10	10 35	Gyro Tie-in
4,827 00	4,813 16	-172 31	-197 23	Last MWD Survey
4,878.00	4,864 15	-173 04	-197 81	Projection to Bit



Azimuths to Grid North
True North -0 27°
Magnetic North 7 39°

Magnetic Field
Strength 48862 1snT
Dip Angle 60.67°
Date 03/31/2012
Model IGRF2010

Skelly Unit #803
Eddy County, NM (NAN27 NME)
Northing: (Y) 661588.00
Easting: (X) 652807.60
Plan #2 vs Actual - 7-7/8" Hole



WELL DETAILS: Skelly Unit #803

+N/-S	+E/-W	Northing	Easting	Ground Level	Latitude	Longitude
0 00	0 00	661588 00	652807 60	3868 00	32° 49' 4 098 N	103° 50' 9.364 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	1730 00	2 18	60 47	1729 71	-14.10	10 35	0 00	0 00	1 61	
2	1950 00	2 18	60 47	1949 55	-9 98	17 64	0 00	0 00	-6 57	
3	2364 12	6 12	232 68	2363 06	-19.49	6 92	2 00	174 25	7 75	
4	4639 73	6 12	232 68	4625 72	-166 51	-185 93	0 00	0 00	249 59	
5	4945 60	0 00	0 00	4931 00	-176 40	-198 90	2 00	180 00	265 85	TG1-Skelly #803
6	6714 60	0 00	0 00	6700 00	-176 40	-198 90	0 00	0 00	265 85	PBHL-Skelly #803

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
TG1-Skelly #803 - plan hits target center	4931 00	-176 40	-198 90	661411 60	652608 70	32° 49' 2 362 N	103° 50' 11 705 W
PBHL-Skelly #803 - plan hits target center	6700 00	-176 40	-198 90	661411 60	652608 70	32° 49' 2 362 N	103° 50' 11 705 W

SITE DETAILS: Skelly Unit #803

Site Centre Northing: 661588 00
Easting 652807 60
Positional Uncertainty 0.00
Convergence 0 27
Local North Grd

PROJECT DETAILS: Eddy County, NM (NAN27 NME)

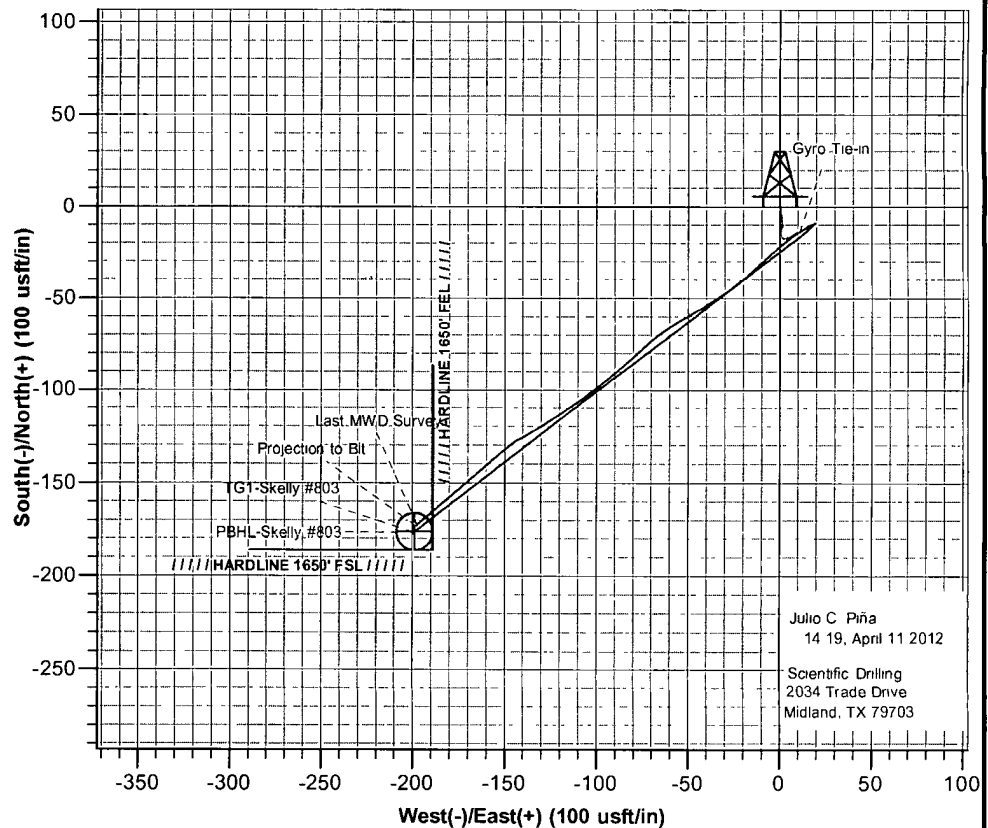
Geodetic System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone New Mexico East 3001
System Datum Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
4900 00	4914 60	Top of Paddock	0 00	

LEGEND

— Skelly Unit #803, OH - Job #32D0312377, Gyro
— Skelly Unit #803, OH - Job #32D0312377, MWD
— Plan #2 - 7-7/8" Hole



Julio C. Piña
14 19, April 11 2012

Scientific Drilling
2034 Trade Drive
Midland, TX 79703