



COG Operating LLC

Eddy County, NM (NAN27 NME)

Bradley 8 Fee #2H

Bradley 8 Fee #2H

OH

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

SHL = 150' FSL & 1700' FWL

PP = 330' FSL & 1700' FWL

BHL = 330' FNL & 1700' FWL

Standard Planning Report

13 December, 2011





SDI
Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Bradley 8 Fee #2H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3373 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3373 00usft
Site:	Bradley 8 Fee #2H	North Reference:	Grid
Well:	Bradley 8 Fee #2H	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	Bradley 8 Fee #2H		
Site Position:		Northing:	606,805 40 usft
From:	Map	Easting:	477,518 50 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 5 474 N
		Longitude:	104° 24' 23 005 W
		Grid Convergence:	-0 04 °

Well	Bradley 8 Fee #2H		
Well Position	+N/-S	0 00 usft	Northing:
	+E/-W	0 00 usft	Easting:
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level:
			3,373 00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2011/12/12	7.94
			Dip Angle
			(°)
			60 44
			Field Strength
			(nT)
			48,741

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
			(°)
			359 12

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target:
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	359 12	2,750 00	477 41	-7.35	12 00	12 00	0 00	359 12	
7,383 44	90 00	359 12	2,750 00	4,837 80	-74 50	0 00	0 00	0 00	0 00	PBHL-Bradley 8 Fee #2H



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bradley 8 Fee #2H
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Site:	Bradley 8 Fee #2H	North Reference:	Grid
Well:	Bradley 8 Fee #2H	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	359 12	2,299 98	0 79	-0 01	0 79	12 00	12.00	0 00
2,400 00	15 30	359 12	2,398 49	16 91	-0 26	16.91	12 00	12 00	0 00
2,500 00	27 30	359 12	2,491.49	53 16	-0 82	53 17	12 00	12 00	0 00
2,600 00	39 30	359 12	2,574 93	107.95	-1.66	107 96	12.00	12 00	0 00
2,700 00	51 30	359 12	2,645 14	178.88	-2 75	178 91	12 00	12 00	0 00
2,701 43	51 47	359 12	2,646 03	180.00	-2 77	180 02	12 00	12 00	0 00
PP=330' FSL Bradley 8 Fee #2H									
2,800 00	63 30	359 12	2,699 07	262 87	-4 05	262 90	12 00	12 00	0 00
2,900 00	75 30	359 12	2,734 36	356 23	-5 49	356 27	12 00	12.00	0 00
3,000 00	87 30	359 12	2,749.47	454 88	-7 01	454 94	12 00	12.00	0 00
3,022 54	90 00	359 12	2,750 00	477 41	-7 35	477.47	12 00	12 00	0 00
Land EOC hold 90.00°									
3,100 00	90 00	359 12	2,750 00	554 86	-8 54	554.93	0 00	0 00	0 00
3,200 00	90 00	359 12	2,750 00	654 85	-10.08	654.93	0 00	0.00	0 00
3,300 00	90 00	359 12	2,750 00	754 84	-11.62	754.93	0 00	0 00	0 00
3,400 00	90 00	359.12	2,750 00	854 83	-13 16	854 93	0.00	0 00	0 00
3,500 00	90 00	359 12	2,750.00	954 82	-14 70	954.93	0 00	0.00	0 00
3,600 00	90 00	359 12	2,750 00	1,054 80	-16 24	1,054 93	0.00	0 00	0 00
3,700 00	90 00	359 12	2,750 00	1,154 79	-17.78	1,154 93	0 00	0.00	0 00
3,800 00	90 00	359 12	2,750 00	1,254 78	-19 32	1,254.93	0 00	0 00	0 00
3,900 00	90 00	359 12	2,750.00	1,354 77	-20.86	1,354 93	0 00	0 00	0 00
4,000 00	90 00	359 12	2,750 00	1,454 76	-22 40	1,454.93	0 00	0 00	0 00
4,100 00	90 00	359 12	2,750 00	1,554 75	-23 94	1,554 93	0 00	0 00	0 00
4,200 00	90 00	359 12	2,750 00	1,654 73	-25 48	1,654 93	0 00	0 00	0 00
4,300 00	90 00	359 12	2,750 00	1,754 72	-27 02	1,754 93	0.00	0 00	0.00
4,400 00	90 00	359 12	2,750.00	1,854 71	-28 56	1,854 93	0 00	0 00	0 00
4,500 00	90 00	359 12	2,750 00	1,954.70	-30 10	1,954 93	0.00	0 00	0.00
4,600 00	90 00	359 12	2,750 00	2,054 69	-31.64	2,054 93	0 00	0.00	0 00
4,700 00	90 00	359 12	2,750 00	2,154 67	-33 18	2,154 93	0 00	0 00	0 00
4,800 00	90 00	359 12	2,750.00	2,254 66	-34 72	2,254 93	0 00	0.00	0 00
4,900 00	90 00	359 12	2,750 00	2,354 65	-36 26	2,354 93	0 00	0 00	0 00
5,000 00	90 00	359 12	2,750 00	2,454 64	-37 80	2,454 93	0 00	0 00	0 00
5,100 00	90 00	359 12	2,750 00	2,554 63	-39 34	2,554 93	0 00	0 00	0 00
5,200 00	90 00	359.12	2,750 00	2,654 61	-40 88	2,654 93	0 00	0 00	0 00
5,300 00	90 00	359.12	2,750 00	2,754 60	-42 42	2,754 93	0 00	0 00	0 00
5,400 00	90 00	359 12	2,750 00	2,854 59	-43 96	2,854.93	0 00	0 00	0.00
5,500 00	90 00	359 12	2,750 00	2,954 58	-45 50	2,954.93	0.00	0 00	0 00
5,600 00	90 00	359 12	2,750 00	3,054 57	-47 04	3,054 93	0 00	0.00	0 00
5,700 00	90 00	359 12	2,750 00	3,154 56	-48 58	3,154.93	0 00	0 00	0 00
5,800 00	90 00	359 12	2,750 00	3,254 54	-50.12	3,254.93	0 00	0 00	0 00
5,900 00	90 00	359 12	2,750 00	3,354.53	-51 66	3,354.93	0 00	0 00	0 00
6,000 00	90 00	359 12	2,750 00	3,454 52	-53 20	3,454.93	0 00	0.00	0 00
6,100 00	90 00	359.12	2,750 00	3,554 51	-54.74	3,554.93	0.00	0 00	0 00
6,200 00	90 00	359 12	2,750 00	3,654.50	-56 28	3,654 93	0 00	0 00	0 00
6,300 00	90 00	359 12	2,750 00	3,754 48	-57 82	3,754.93	0 00	0.00	0 00
6,400 00	90 00	359 12	2,750 00	3,854 47	-59.36	3,854.93	0 00	0 00	0 00
6,500 00	90 00	359 12	2,750 00	3,954.46	-60 90	3,954.93	0.00	0 00	0 00
6,600 00	90 00	359 12	2,750 00	4,054 45	-62 44	4,054.93	0 00	0 00	0 00
6,700 00	90 00	359 12	2,750 00	4,154 44	-63 98	4,154 93	0 00	0 00	0 00
6,800 00	90 00	359.12	2,750 00	4,254 43	-65 52	4,254 93	0 00	0 00	0 00



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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	359.12	2,750 00	4,354 41	-67.06	4,354.93	0.00	0 00	0 00
7,000 00	90 00	359 12	2,750 00	4,454 40	-68 60	4,454.93	0 00	0 00	0 00
7,100 00	90 00	359 12	2,750 00	4,554 39	-70 14	4,554 93	0 00	0 00	0 00
7,200 00	90 00	359 12	2,750 00	4,654 38	-71 68	4,654 93	0 00	0 00	0 00
7,300 00	90 00	359 12	2,750 00	4,754 37	-73 22	4,754.93	0 00	0 00	0 00
7,383 44	90.00	359 12	2,750 00	4,837 80	-74 50	4,838 37	0 00	0 00	0 00
PBHL-Bradley 8 Fee #2H									

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' FSL Bradley 8	0 00	0 00	2,646 03	180 00	-2 77	606,985 41	477,515.73	32° 40' 7.255 N	104° 24' 23.039 W
- plan hits target center									
- Point									
PBHL-Bradley 8 Fee #2I	0.00	0.00	2,750 00	4,837 80	-74 50	611,643 20	477,444.00	32° 40' 53.347 N	104° 24' 23.916 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 41	-7 35	Land EOC hold 90 00°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Bradley 8 Fee #2H
Wellbore: OH
Design: Plan #1 8-3/4" Hole



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	359.12	2750.00	477.41	-7.35	12.00	359.12	477.46	
4	7383.44	90.00	359.12	2750.00	4837.80	-74.50	0.00	0.00	4838.37	PBHL-Bradley 8 Fee #2H

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PP=330' FSL Bradley 8 Fee #2H	2646.03	180.00	-2.77	606985.40	477515.73	32°40' 7.255 N	104°24' 23.039 W	Point
PBHL-Bradley 8 Fee #2H	2750.00	4837.80	-74.50	611643.20	477444.00	32°40' 53.347 N	104°24' 23.916 W	Point

WELL DETAILS: Bradley 8 Fee #2H

		Ground Level.		3373.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	606805.40	477518.50	32°40' 5.474 N	104°24' 23.005 W	

Bradley 8 Fee #2H

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

