



COG Operating LLC

Eddy County, NM (NAN27 NME)

Bradley 8 Fee #3H

Bradley 8 Fee #3H

OH

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

SHL = 150' FSL & 2260' FEL

PP = 330' FSL & 2260' FEL

BHL = 330' FNL & 2260' FEL

Standard Planning Report

13 December, 2011





SDI
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bradley 8 Fee #3H
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 #3H	North Reference:	Grid
Well:	Bradley 8 Fee #3H	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 #3H		
Site Position:	Map	Northing:	606,797.50 usft
From:		Easting:	478,847.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 40' 5.405 N
		Longitude:	104° 24' 7.454 W
		Grid Convergence:	-0.04°

Well	Bradley 8 Fee #3H		
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
			(°)
			358.80

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	358.80	2,750.00	477.36	-10.01	12.00	12.00	0.00	358.80	
7,392.34	90.00	358.80	2,750.00	4,846.20	-101.60	0.00	0.00	0.00	0.00	PBHL-Bradley 8 Fee 1



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Site:	Bradley 8 Fee #3H	North Reference:	Grid
Well:	Bradley 8 Fee #3H	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	358.80	2,299.98	0.79	-0.02	0.79	12.00	12.00	0.00
2,400.00	15.30	358.80	2,398.49	16.91	-0.35	16.91	12.00	12.00	0.00
2,500.00	27.30	358.80	2,491.49	53.15	-1.11	53.17	12.00	12.00	0.00
2,600.00	39.30	358.80	2,574.93	107.94	-2.26	107.96	12.00	12.00	0.00
2,700.00	51.30	358.80	2,645.14	178.87	-3.75	178.91	12.00	12.00	0.00
2,701.44	51.47	358.80	2,646.04	180.00	-3.77	180.03	12.00	12.00	0.00
PP=330' FSL Bradley 8 Fee #3H									
2,800.00	63.30	358.80	2,699.07	262.84	-5.51	262.90	12.00	12.00	0.00
2,900.00	75.30	358.80	2,734.36	356.19	-7.47	356.27	12.00	12.00	0.00
3,000.00	87.30	358.80	2,749.47	454.84	-9.54	454.94	12.00	12.00	0.00
3,022.54	90.00	358.80	2,750.00	477.36	-10.01	477.47	12.00	12.00	0.00
Land EOC hold 90.00°									
3,100.00	90.00	358.80	2,750.00	554.81	-11.63	554.93	0.00	0.00	0.00
3,200.00	90.00	358.80	2,750.00	654.79	-13.73	654.93	0.00	0.00	0.00
3,300.00	90.00	358.80	2,750.00	754.76	-15.82	754.93	0.00	0.00	0.00
3,400.00	90.00	358.80	2,750.00	854.74	-17.92	854.93	0.00	0.00	0.00
3,500.00	90.00	358.80	2,750.00	954.72	-20.02	954.93	0.00	0.00	0.00
3,600.00	90.00	358.80	2,750.00	1,054.70	-22.11	1,054.93	0.00	0.00	0.00
3,700.00	90.00	358.80	2,750.00	1,154.68	-24.21	1,154.93	0.00	0.00	0.00
3,800.00	90.00	358.80	2,750.00	1,254.65	-26.30	1,254.93	0.00	0.00	0.00
3,900.00	90.00	358.80	2,750.00	1,354.63	-28.40	1,354.93	0.00	0.00	0.00
4,000.00	90.00	358.80	2,750.00	1,454.61	-30.50	1,454.93	0.00	0.00	0.00
4,100.00	90.00	358.80	2,750.00	1,554.59	-32.59	1,554.93	0.00	0.00	0.00
4,200.00	90.00	358.80	2,750.00	1,654.57	-34.69	1,654.93	0.00	0.00	0.00
4,300.00	90.00	358.80	2,750.00	1,754.54	-36.78	1,754.93	0.00	0.00	0.00
4,400.00	90.00	358.80	2,750.00	1,854.52	-38.88	1,854.93	0.00	0.00	0.00
4,500.00	90.00	358.80	2,750.00	1,954.50	-40.98	1,954.93	0.00	0.00	0.00
4,600.00	90.00	358.80	2,750.00	2,054.48	-43.07	2,054.93	0.00	0.00	0.00
4,700.00	90.00	358.80	2,750.00	2,154.46	-45.17	2,154.93	0.00	0.00	0.00
4,800.00	90.00	358.80	2,750.00	2,254.43	-47.26	2,254.93	0.00	0.00	0.00
4,900.00	90.00	358.80	2,750.00	2,354.41	-49.36	2,354.93	0.00	0.00	0.00
5,000.00	90.00	358.80	2,750.00	2,454.39	-51.46	2,454.93	0.00	0.00	0.00
5,100.00	90.00	358.80	2,750.00	2,554.37	-53.55	2,554.93	0.00	0.00	0.00
5,200.00	90.00	358.80	2,750.00	2,654.35	-55.65	2,654.93	0.00	0.00	0.00
5,300.00	90.00	358.80	2,750.00	2,754.32	-57.74	2,754.93	0.00	0.00	0.00
5,400.00	90.00	358.80	2,750.00	2,854.30	-59.84	2,854.93	0.00	0.00	0.00
5,500.00	90.00	358.80	2,750.00	2,954.28	-61.94	2,954.93	0.00	0.00	0.00
5,600.00	90.00	358.80	2,750.00	3,054.26	-64.03	3,054.93	0.00	0.00	0.00
5,700.00	90.00	358.80	2,750.00	3,154.24	-66.13	3,154.93	0.00	0.00	0.00
5,800.00	90.00	358.80	2,750.00	3,254.21	-68.22	3,254.93	0.00	0.00	0.00
5,900.00	90.00	358.80	2,750.00	3,354.19	-70.32	3,354.93	0.00	0.00	0.00
6,000.00	90.00	358.80	2,750.00	3,454.17	-72.42	3,454.93	0.00	0.00	0.00
6,100.00	90.00	358.80	2,750.00	3,554.15	-74.51	3,554.93	0.00	0.00	0.00
6,200.00	90.00	358.80	2,750.00	3,654.13	-76.61	3,654.93	0.00	0.00	0.00
6,300.00	90.00	358.80	2,750.00	3,754.10	-78.70	3,754.93	0.00	0.00	0.00
6,400.00	90.00	358.80	2,750.00	3,854.08	-80.80	3,854.93	0.00	0.00	0.00
6,500.00	90.00	358.80	2,750.00	3,954.06	-82.90	3,954.93	0.00	0.00	0.00
6,600.00	90.00	358.80	2,750.00	4,054.04	-84.99	4,054.93	0.00	0.00	0.00
6,700.00	90.00	358.80	2,750.00	4,154.02	-87.09	4,154.93	0.00	0.00	0.00
6,800.00	90.00	358.80	2,750.00	4,253.99	-89.18	4,254.93	0.00	0.00	0.00



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Site:	Bradley 8 Fee #3H	North Reference:	Grid
Well:	Bradley 8 Fee #3H	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)
6,900 00	90 00	358 80	2,750 00	4,353 97	-91 28	4,354 93	0 00	0 00	0 00
7,000 00	90 00	358 80	2,750 00	4,453 95	-93 38	4,454 93	0 00	0 00	0 00
7,100 00	90 00	358 80	2,750 00	4,553 93	-95 47	4,554 93	0 00	0 00	0 00
7,200 00	90 00	358 80	2,750 00	4,653 91	-97 57	4,654 93	0 00	0 00	0 00
7,300 00	90 00	358 80	2,750 00	4,753 89	-99 66	4,754 93	0 00	0 00	0 00
7,392 34	90 00	358 80	2,750 00	4,846 20	-101 60	4,847 27	0 00	0 00	0 00
PBHL-Bradley 8 Fee #3H									

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 l	0 00	360 00	2,646 05	180 00	-3 77	606,977 50	478,844.03	32° 40' 7 186 N	104° 24' 7 499 W
- plan hits target center									
- Point									
PBHL-Bradley 8 Fee #3l	0 00	0 00	2,750 00	4,846.20	-101 60	611,643 70	478,746 20	32° 40' 53 361 N	104° 24' 8 679 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	458 61	-132 86	Land EOC hold 90.00°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Bradley 8 Fee #3H
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	
	22272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	
	33022.54	90.00	358.80	2750.00	477.36	-10.01	12.00	358.80	477.46	
	47392.34	90.00	358.80	2750.00	4846.20	-101.60	0.00	0.00	4847.26	PBHL-Bradley 8 Fee #3H

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PP=330' FSL Bradley 8 Fee #3H	2646.05	180.00	-3.77	606977.50	478844.03	32° 40' 7.186 N 104° 24' 7.499 W		Point
PBHL-Bradley 8 Fee #3H	2750.00	4846.20	-101.60	611643.70	478746.20	32° 40' 53.361 N 104° 24' 8.679 W		Point

WELL DETAILS: Bradley 8 Fee #3H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	606977.50	478847.80	32° 40' 5.405 N	104° 24' 7.454 W

Bradley 8 Fee #3H

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

