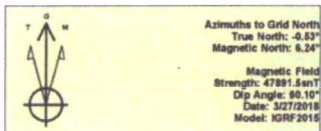




Lea County, NM (NAD 83 NME)

Grendel 2 State #302H

Plan #0.1



To convert a Magnetic Direction to a Grid Direction, Add 6.24°
To convert a Magnetic Direction to a True Direction, Add 6.76° East
To convert a True Direction to a Grid Direction, Subtract 0.53°

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #302H

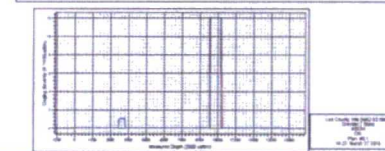
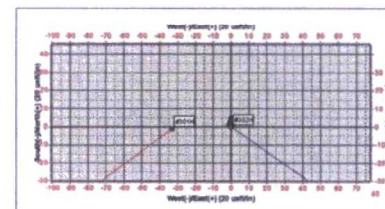
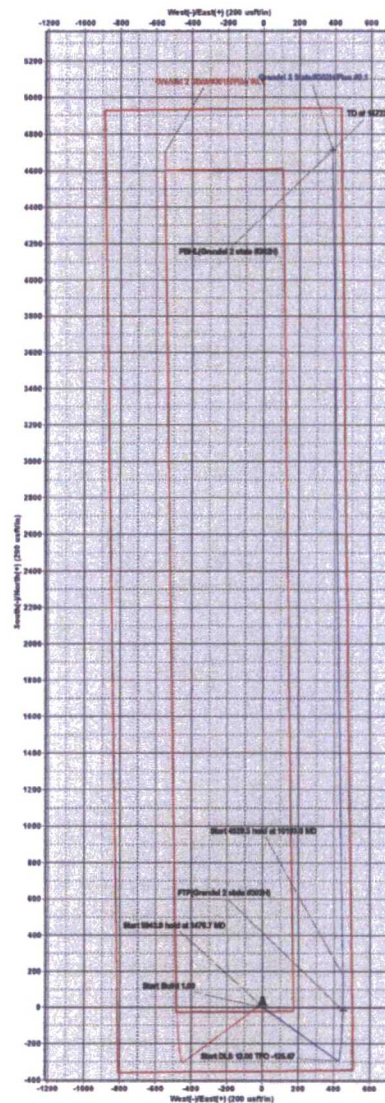
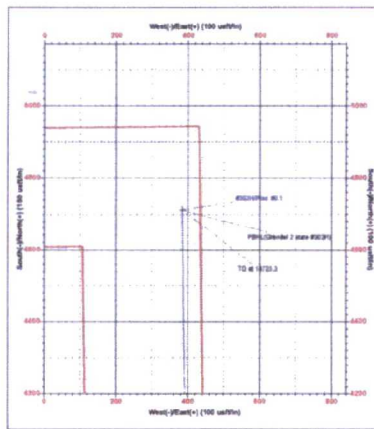
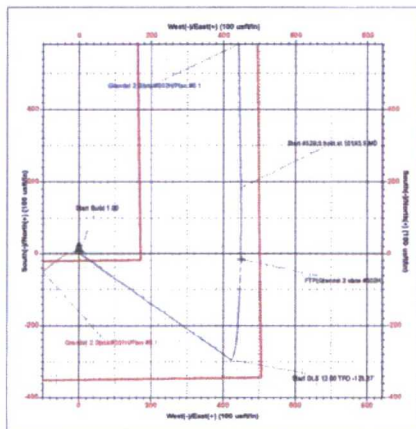
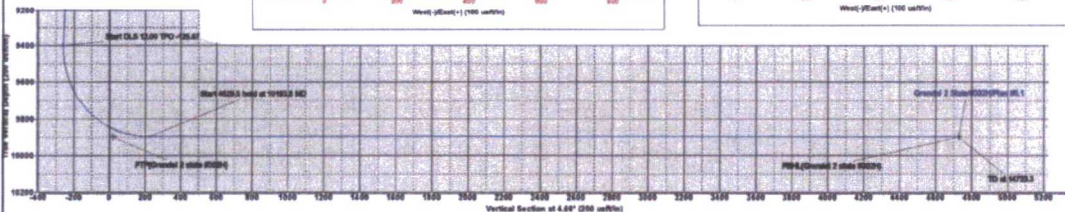
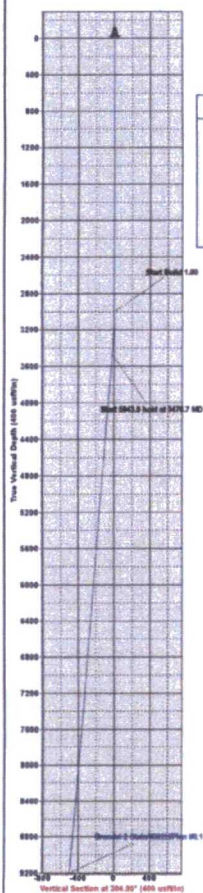
KB = 25 @ 3480.0usft 3455.0
Northing 452590.00 Easting 847167.00 Latitude 32° 14' 24.951 N Longitude 103° 20' 38.054 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0
3476.7	4.77	124.95	3476.2	-11.4	16.2	1.00	124.95	-10.0
9420.6	4.77	124.95	9399.5	-294.4	421.1	0.00	0.00	-259.2
10193.8	90.00	359.19	9899.0	183.0	448.2	12.00	-125.67	218.8
14723.3	90.00	359.19	9899.0	4712.0	384.0	0.00	0.00	4727.6

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP(Grendel 2 state #302H)	9899.0	-17.0	481.0	452593.00	847618.00
PBHL(Grendel 2 state #302H)	9899.0	4712.0	384.0	457262.00	847691.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Grendel 2 State

#302H

OH

Plan: Plan #0.1

Standard Planning Report

27 March, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #302H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3480.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3480.0usft
Site:	Grendel 2 State	North Reference:	Grid
Well:	#302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Grendel 2 State		
Site Position:		Northing:	452,549.00 usft
From:	Map	Easting:	847,134.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 14' 24.944 N
		Longitude:	103° 20' 39.439 W
		Grid Convergence:	0.53 °

Well	#302H		
Well Position	+N/-S	1.0 usft	Northing: 452,550.00 usft
	+E/-W	33.0 usft	Easting: 847,167.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,455.0 usft
		Latitude:	32° 14' 24.951 N
		Longitude:	103° 20' 39.054 W
		Ground Level:	

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	3/27/2018	6.76
			Dip Angle (°)
			60.10
			Field Strength (nT)
			47,891.49565801

Design	Plan #0.1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			4.66

Plan Survey Tool Program	Date 3/27/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name
1	0.0	14,723.3 Plan #0.1 (OH)	MWD
			OWSG MWD - Standard
			Remarks

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,476.7	4.77	124.95	3,476.2	-11.4	16.2	1.00	1.00	0.00	124.95	
9,420.6	4.77	124.95	9,399.5	-294.4	421.1	0.00	0.00	0.00	0.00	
10,193.8	90.00	359.19	9,899.0	183.0	448.2	12.00	11.02	-16.27	-125.67	
14,723.3	90.00	359.19	9,899.0	4,712.0	384.0	0.00	0.00	0.00	0.00	PBHL(Grendel 2 state



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Grendel 2 State
 Well: #302H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #302H
 TVD Reference: KB = 25 @ 3480.0usft
 MD Reference: KB = 25 @ 3480.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	1.00	124.95	3,100.0	-0.5	0.7	-0.4	1.00	1.00	0.00
3,200.0	2.00	124.95	3,200.0	-2.0	2.9	-1.8	1.00	1.00	0.00
3,300.0	3.00	124.95	3,299.9	-4.5	6.4	-4.0	1.00	1.00	0.00
3,400.0	4.00	124.95	3,399.7	-8.0	11.4	-7.0	1.00	1.00	0.00
3,476.7	4.77	124.95	3,476.2	-11.4	16.2	-10.0	1.00	1.00	0.00
3,500.0	4.77	124.95	3,499.4	-12.5	17.8	-11.0	0.00	0.00	0.00
3,600.0	4.77	124.95	3,599.0	-17.2	24.6	-15.2	0.00	0.00	0.00
3,700.0	4.77	124.95	3,698.7	-22.0	31.5	-19.4	0.00	0.00	0.00
3,800.0	4.77	124.95	3,798.3	-26.7	38.3	-23.6	0.00	0.00	0.00
3,900.0	4.77	124.95	3,898.0	-31.5	45.1	-27.7	0.00	0.00	0.00
4,000.0	4.77	124.95	3,997.6	-36.3	51.9	-31.9	0.00	0.00	0.00
4,100.0	4.77	124.95	4,097.3	-41.0	58.7	-36.1	0.00	0.00	0.00
4,200.0	4.77	124.95	4,196.9	-45.8	65.5	-40.3	0.00	0.00	0.00
4,300.0	4.77	124.95	4,296.6	-50.6	72.3	-44.5	0.00	0.00	0.00
4,400.0	4.77	124.95	4,396.3	-55.3	79.1	-48.7	0.00	0.00	0.00
4,500.0	4.77	124.95	4,495.9	-60.1	85.9	-52.9	0.00	0.00	0.00
4,600.0	4.77	124.95	4,595.6	-64.8	92.8	-57.1	0.00	0.00	0.00
4,700.0	4.77	124.95	4,695.2	-69.6	99.6	-61.3	0.00	0.00	0.00
4,800.0	4.77	124.95	4,794.9	-74.4	106.4	-65.5	0.00	0.00	0.00
4,900.0	4.77	124.95	4,894.5	-79.1	113.2	-69.7	0.00	0.00	0.00
5,000.0	4.77	124.95	4,994.2	-83.9	120.0	-73.9	0.00	0.00	0.00
5,100.0	4.77	124.95	5,093.8	-88.6	126.8	-78.1	0.00	0.00	0.00
5,200.0	4.77	124.95	5,193.5	-93.4	133.6	-82.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Grendel 2 State
 Well: #302H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #302H
 TVD Reference: KB = 25 @ 3480.0usft
 MD Reference: KB = 25 @ 3480.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
5,300.0	4.77	124.95	5,293.1	-98.2	140.4	-86.4	0.00	0.00	0.00
5,400.0	4.77	124.95	5,392.8	-102.9	147.3	-90.6	0.00	0.00	0.00
5,500.0	4.77	124.95	5,492.5	-107.7	154.1	-94.8	0.00	0.00	0.00
5,600.0	4.77	124.95	5,592.1	-112.5	160.9	-99.0	0.00	0.00	0.00
5,700.0	4.77	124.95	5,691.8	-117.2	167.7	-103.2	0.00	0.00	0.00
5,800.0	4.77	124.95	5,791.4	-122.0	174.5	-107.4	0.00	0.00	0.00
5,900.0	4.77	124.95	5,891.1	-126.7	181.3	-111.6	0.00	0.00	0.00
6,000.0	4.77	124.95	5,990.7	-131.5	188.1	-115.8	0.00	0.00	0.00
6,100.0	4.77	124.95	6,090.4	-136.3	194.9	-120.0	0.00	0.00	0.00
6,200.0	4.77	124.95	6,190.0	-141.0	201.7	-124.2	0.00	0.00	0.00
6,300.0	4.77	124.95	6,289.7	-145.8	208.6	-128.4	0.00	0.00	0.00
6,400.0	4.77	124.95	6,389.3	-150.5	215.4	-132.6	0.00	0.00	0.00
6,500.0	4.77	124.95	6,489.0	-155.3	222.2	-136.8	0.00	0.00	0.00
6,600.0	4.77	124.95	6,588.6	-160.1	229.0	-140.9	0.00	0.00	0.00
6,700.0	4.77	124.95	6,688.3	-164.8	235.8	-145.1	0.00	0.00	0.00
6,800.0	4.77	124.95	6,788.0	-169.6	242.6	-149.3	0.00	0.00	0.00
6,900.0	4.77	124.95	6,887.6	-174.4	249.4	-153.5	0.00	0.00	0.00
7,000.0	4.77	124.95	6,987.3	-179.1	256.2	-157.7	0.00	0.00	0.00
7,100.0	4.77	124.95	7,086.9	-183.9	263.1	-161.9	0.00	0.00	0.00
7,200.0	4.77	124.95	7,186.6	-188.6	269.9	-166.1	0.00	0.00	0.00
7,300.0	4.77	124.95	7,286.2	-193.4	276.7	-170.3	0.00	0.00	0.00
7,400.0	4.77	124.95	7,385.9	-198.2	283.5	-174.5	0.00	0.00	0.00
7,500.0	4.77	124.95	7,485.5	-202.9	290.3	-178.7	0.00	0.00	0.00
7,600.0	4.77	124.95	7,585.2	-207.7	297.1	-182.9	0.00	0.00	0.00
7,700.0	4.77	124.95	7,684.8	-212.5	303.9	-187.1	0.00	0.00	0.00
7,800.0	4.77	124.95	7,784.5	-217.2	310.7	-191.3	0.00	0.00	0.00
7,900.0	4.77	124.95	7,884.1	-222.0	317.5	-195.4	0.00	0.00	0.00
8,000.0	4.77	124.95	7,983.8	-226.7	324.4	-199.6	0.00	0.00	0.00
8,100.0	4.77	124.95	8,083.5	-231.5	331.2	-203.8	0.00	0.00	0.00
8,200.0	4.77	124.95	8,183.1	-236.3	338.0	-208.0	0.00	0.00	0.00
8,300.0	4.77	124.95	8,282.8	-241.0	344.8	-212.2	0.00	0.00	0.00
8,400.0	4.77	124.95	8,382.4	-245.8	351.6	-216.4	0.00	0.00	0.00
8,500.0	4.77	124.95	8,482.1	-250.5	358.4	-220.6	0.00	0.00	0.00
8,600.0	4.77	124.95	8,581.7	-255.3	365.2	-224.8	0.00	0.00	0.00
8,700.0	4.77	124.95	8,681.4	-260.1	372.0	-229.0	0.00	0.00	0.00
8,800.0	4.77	124.95	8,781.0	-264.8	378.9	-233.2	0.00	0.00	0.00
8,900.0	4.77	124.95	8,880.7	-269.6	385.7	-237.4	0.00	0.00	0.00
9,000.0	4.77	124.95	8,980.3	-274.4	392.5	-241.6	0.00	0.00	0.00
9,100.0	4.77	124.95	9,080.0	-279.1	399.3	-245.8	0.00	0.00	0.00
9,200.0	4.77	124.95	9,179.6	-283.9	406.1	-250.0	0.00	0.00	0.00
9,300.0	4.77	124.95	9,279.3	-288.6	412.9	-254.1	0.00	0.00	0.00
9,400.0	4.77	124.95	9,379.0	-293.4	419.7	-258.3	0.00	0.00	0.00
9,420.6	4.77	124.95	9,399.5	-294.4	421.1	-259.2	0.00	0.00	0.00
9,425.0	4.48	119.45	9,403.9	-294.6	421.4	-259.4	12.00	-6.53	-125.00
9,450.0	3.94	78.30	9,428.8	-294.9	423.1	-259.5	12.00	-2.15	-164.60
9,475.0	5.38	45.08	9,453.7	-293.9	424.8	-258.4	12.00	5.77	-132.87
9,500.0	7.77	28.91	9,478.6	-291.6	426.4	-256.0	12.00	9.55	-64.68
9,525.0	10.48	20.65	9,503.2	-288.0	428.1	-252.2	12.00	10.83	-33.04
9,550.0	13.31	15.81	9,527.7	-283.1	429.6	-247.2	12.00	11.33	-19.37
9,575.0	16.20	12.66	9,551.9	-276.9	431.2	-240.9	12.00	11.57	-12.61
9,600.0	19.13	10.44	9,575.7	-269.5	432.7	-233.4	12.00	11.70	-8.86
9,625.0	22.07	8.80	9,599.1	-260.8	434.2	-224.7	12.00	11.78	-6.58
9,650.0	25.03	7.52	9,622.0	-250.9	435.6	-214.7	12.00	11.83	-5.10
9,675.0	27.99	6.50	9,644.4	-239.8	436.9	-203.5	12.00	11.86	-4.08



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Grendel 2 State
Well: #302H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #302H
TVD Reference: KB = 25 @ 3480.0usft
MD Reference: KB = 25 @ 3480.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
9,700.0	30.96	5.66	9,666.1	-227.6	438.2	-191.2	12.00	11.89	-3.35
9,725.0	33.94	4.96	9,687.2	-214.2	439.5	-177.8	12.00	11.90	-2.82
9,750.0	36.92	4.36	9,707.6	-199.8	440.6	-163.3	12.00	11.92	-2.41
9,775.0	39.90	3.83	9,727.2	-184.3	441.7	-147.8	12.00	11.93	-2.10
9,800.0	42.89	3.37	9,746.0	-167.8	442.8	-131.3	12.00	11.94	-1.86
9,825.0	45.87	2.95	9,763.8	-150.3	443.7	-113.8	12.00	11.94	-1.66
9,850.0	48.86	2.58	9,780.7	-132.0	444.6	-95.4	12.00	11.95	-1.50
9,875.0	51.85	2.24	9,796.7	-112.7	445.4	-76.2	12.00	11.95	-1.37
9,900.0	54.84	1.92	9,811.6	-92.7	446.2	-56.2	12.00	11.96	-1.26
9,925.0	57.83	1.63	9,825.5	-71.9	446.8	-35.4	12.00	11.96	-1.17
9,950.0	60.82	1.35	9,838.2	-50.4	447.4	-13.9	12.00	11.96	-1.10
9,975.0	63.81	1.10	9,849.9	-28.3	447.8	8.2	12.00	11.97	-1.03
10,000.0	66.80	0.85	9,860.3	-5.6	448.2	30.8	12.00	11.97	-0.98
10,003.7	67.25	0.81	9,861.8	-2.1	448.3	34.3	12.00	11.97	-0.96
FTP(Grendel 2 state #302H)									
10,025.0	69.79	0.62	9,869.5	17.6	448.5	54.0	12.00	11.97	-0.94
10,050.0	72.78	0.39	9,877.6	41.3	448.7	77.6	12.00	11.97	-0.90
10,075.0	75.78	0.17	9,884.3	65.4	448.8	101.6	12.00	11.97	-0.87
10,100.0	78.77	359.96	9,889.8	89.8	448.9	125.9	12.00	11.97	-0.85
10,125.0	81.76	359.75	9,894.1	114.4	448.8	150.5	12.00	11.97	-0.83
10,150.0	84.76	359.54	9,897.0	139.2	448.7	175.2	12.00	11.97	-0.82
10,175.0	87.75	359.34	9,898.6	164.2	448.4	200.0	12.00	11.97	-0.81
10,193.8	90.00	359.19	9,899.0	183.0	448.2	218.8	12.00	11.97	-0.81
10,200.0	90.00	359.19	9,899.0	189.2	448.1	224.9	0.00	0.00	0.00
10,300.0	90.00	359.19	9,899.0	289.1	446.7	324.5	0.00	0.00	0.00
10,400.0	90.00	359.19	9,899.0	389.1	445.2	424.0	0.00	0.00	0.00
10,500.0	90.00	359.19	9,899.0	489.1	443.8	523.6	0.00	0.00	0.00
10,600.0	90.00	359.19	9,899.0	589.1	442.4	623.1	0.00	0.00	0.00
10,700.0	90.00	359.19	9,899.0	689.1	441.0	722.6	0.00	0.00	0.00
10,800.0	90.00	359.19	9,899.0	789.1	439.6	822.2	0.00	0.00	0.00
10,900.0	90.00	359.19	9,899.0	889.1	438.2	921.7	0.00	0.00	0.00
11,000.0	90.00	359.19	9,899.0	989.1	436.7	1,021.3	0.00	0.00	0.00
11,100.0	90.00	359.19	9,899.0	1,089.1	435.3	1,120.8	0.00	0.00	0.00
11,200.0	90.00	359.19	9,899.0	1,189.1	433.9	1,220.4	0.00	0.00	0.00
11,300.0	90.00	359.19	9,899.0	1,289.0	432.5	1,319.9	0.00	0.00	0.00
11,400.0	90.00	359.19	9,899.0	1,389.0	431.1	1,419.5	0.00	0.00	0.00
11,500.0	90.00	359.19	9,899.0	1,489.0	429.7	1,519.0	0.00	0.00	0.00
11,600.0	90.00	359.19	9,899.0	1,589.0	428.2	1,618.5	0.00	0.00	0.00
11,700.0	90.00	359.19	9,899.0	1,689.0	426.8	1,718.1	0.00	0.00	0.00
11,800.0	90.00	359.19	9,899.0	1,789.0	425.4	1,817.6	0.00	0.00	0.00
11,900.0	90.00	359.19	9,899.0	1,889.0	424.0	1,917.2	0.00	0.00	0.00
12,000.0	90.00	359.19	9,899.0	1,989.0	422.6	2,016.7	0.00	0.00	0.00
12,100.0	90.00	359.19	9,899.0	2,089.0	421.2	2,116.3	0.00	0.00	0.00
12,200.0	90.00	359.19	9,899.0	2,189.0	419.7	2,215.8	0.00	0.00	0.00
12,300.0	90.00	359.19	9,899.0	2,288.9	418.3	2,315.4	0.00	0.00	0.00
12,400.0	90.00	359.19	9,899.0	2,388.9	416.9	2,414.9	0.00	0.00	0.00
12,500.0	90.00	359.19	9,899.0	2,488.9	415.5	2,514.4	0.00	0.00	0.00
12,600.0	90.00	359.19	9,899.0	2,588.9	414.1	2,614.0	0.00	0.00	0.00
12,700.0	90.00	359.19	9,899.0	2,688.9	412.7	2,713.5	0.00	0.00	0.00
12,800.0	90.00	359.19	9,899.0	2,788.9	411.2	2,813.1	0.00	0.00	0.00
12,900.0	90.00	359.19	9,899.0	2,888.9	409.8	2,912.6	0.00	0.00	0.00
13,000.0	90.00	359.19	9,899.0	2,988.9	408.4	3,012.2	0.00	0.00	0.00
13,100.0	90.00	359.19	9,899.0	3,088.9	407.0	3,111.7	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #302H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3480.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3480.0usft
Site:	Grendel 2 State	North Reference:	Grid
Well:	#302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
13,200.0	90.00	359.19	9,899.0	3,188.9	405.6	3,211.3	0.00	0.00	0.00
13,300.0	90.00	359.19	9,899.0	3,288.8	404.2	3,310.8	0.00	0.00	0.00
13,400.0	90.00	359.19	9,899.0	3,388.8	402.7	3,410.3	0.00	0.00	0.00
13,500.0	90.00	359.19	9,899.0	3,488.8	401.3	3,509.9	0.00	0.00	0.00
13,600.0	90.00	359.19	9,899.0	3,588.8	399.9	3,609.4	0.00	0.00	0.00
13,700.0	90.00	359.19	9,899.0	3,688.8	398.5	3,709.0	0.00	0.00	0.00
13,800.0	90.00	359.19	9,899.0	3,788.8	397.1	3,808.5	0.00	0.00	0.00
13,900.0	90.00	359.19	9,899.0	3,888.8	395.7	3,908.1	0.00	0.00	0.00
14,000.0	90.00	359.19	9,899.0	3,988.8	394.2	4,007.6	0.00	0.00	0.00
14,100.0	90.00	359.19	9,899.0	4,088.8	392.8	4,107.2	0.00	0.00	0.00
14,200.0	90.00	359.19	9,899.0	4,188.8	391.4	4,206.7	0.00	0.00	0.00
14,300.0	90.00	359.19	9,899.0	4,288.7	390.0	4,306.2	0.00	0.00	0.00
14,400.0	90.00	359.19	9,899.0	4,388.7	388.6	4,405.8	0.00	0.00	0.00
14,500.0	90.00	359.19	9,899.0	4,488.7	387.2	4,505.3	0.00	0.00	0.00
14,600.0	90.00	359.19	9,899.0	4,588.7	385.7	4,604.9	0.00	0.00	0.00
14,700.0	90.00	359.19	9,899.0	4,688.7	384.3	4,704.4	0.00	0.00	0.00
14,723.3	90.00	359.19	9,899.0	4,712.0	384.0	4,727.6	0.00	0.00	0.00
PBHL(Grendel 2 state #302H)									

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									
FTP(Grendel 2 state #302H)	0.00	0.00	9,899.0	-17.0	451.0	452,533.00	847,618.00	32° 14' 24.741 N	103° 20' 33.806 W
- plan misses target center by 40.2usft at 10003.7usft MD (9861.8 TVD, -2.1 N, 448.3 E)									
- Point									
PBHL(Grendel 2 state #302H)	0.00	0.00	9,899.0	4,712.0	384.0	457,262.00	847,551.00	32° 15' 11.539 N	103° 20' 34.078 W
- plan hits target center									
- Point									