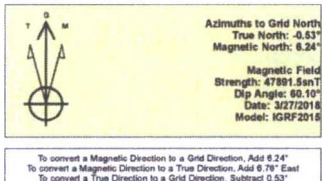




Lea County, NM (NAD 83 NME)

Grendel 2 State #301H

Plan #0.1



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: #301H

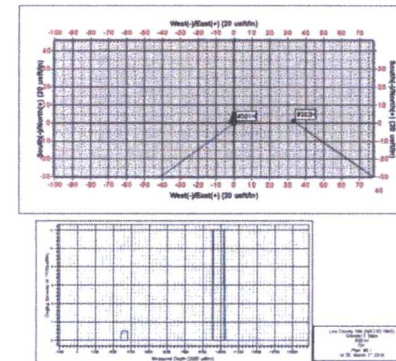
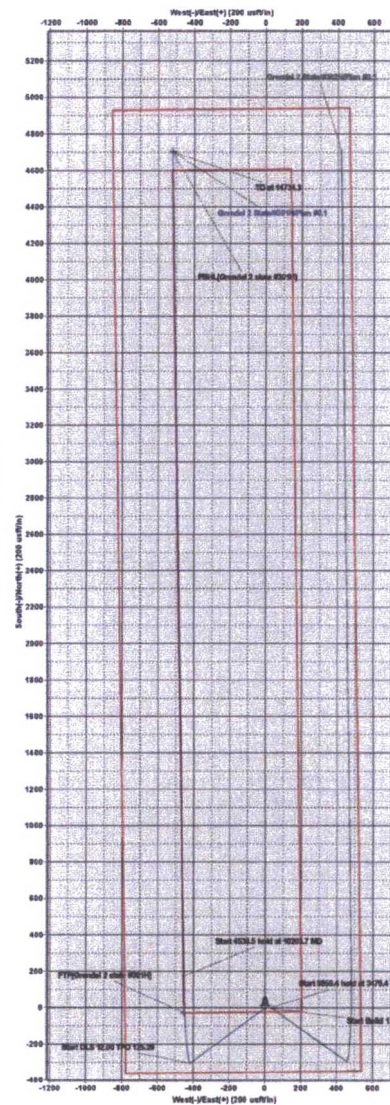
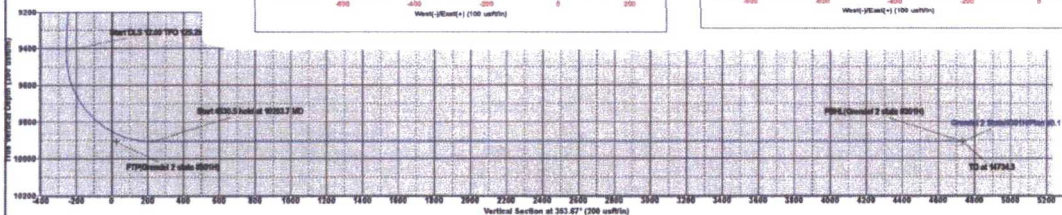
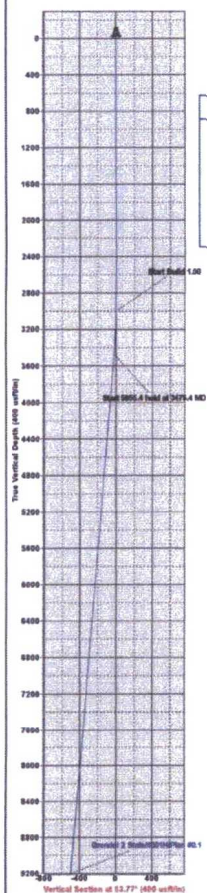
Kb = 25 @ 3479.0m 3454.0
Northing 452549.00 Easting 847134.00 Latitude 32° 14' 24.94 N Longitude 103° 20' 39.43 W

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
3475.4	4.75	233.77	3474.9	-11.7	-15.9	1.00	233.77	-9.8
9430.8	4.75	233.77	9409.8	-303.4	-414.1	0.00	0.00	-255.9
10203.7	90.00	359.15	9909.0	173.0	-455.0	12.00	125.29	222.1
14734.3	90.00	359.15	9909.0	4703.0	-522.0	0.00	0.00	4731.9

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP(Grendel 2 state #301H)	9909.0	-37.0	-482.0	452622.00	846682.00
PBHL(Grendel 2 state #301H)	9909.0	4703.0	-522.0	457262.00	846612.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Grendel 2 State

#301H

OH

Plan: Plan #0.1

Standard Planning Report

27 March, 2018



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Grendel 2 State
Well: #301H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #301H
TVD Reference: Kb = 25 @ 3479.0usft
MD Reference: Kb = 25 @ 3479.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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

Well #301H
Well Position +N/-S 0.0 usft Northing: 452,549.00 usft Latitude: 32° 14' 24.944 N
 +E/-W 0.0 usft Easting: 847,134.00 usft Longitude: 103° 20' 39.439 W
Position Uncertainty 0.0 usft Wellhead Elevation: Ground Level: 3,454.0 usft

Wellbore OH
Magnetics Model Name Sample Date Declination (") Dip Angle (") Field Strength (nT)
 IGRF2015 3/27/2018 6.76 60.10 47,891.49083376

Design Plan #0.1
Audit Notes:
Version: Phase: PLAN Tie On Depth: 0.0
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
 (usft) (usft) (usft) (")
 0.0 0.0 0.0 353.67

Plan Survey Tool Program Date 3/27/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	14,734.3 Plan #0.1 (OH)	MWD	
			OWSG MWD - Standard	

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	
3,475.4	4.75	233.77	3,474.9	-11.7	-15.9	1.00	1.00	0.00	233.77	
9,430.8	4.75	233.77	9,409.8	-303.4	-414.1	0.00	0.00	0.00	0.00	
10,203.7	90.00	359.15	9,909.0	173.0	-455.0	12.00	11.03	16.22	125.29	
14,734.3	90.00	359.15	9,909.0	4,703.0	-522.0	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: #301H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #301H
TVD Reference: Kb = 25 @ 3479.0usft
MD Reference: Kb = 25 @ 3479.0usft
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	233.77	3,100.0	-0.5	-0.7	-0.4	1.00	1.00	0.00
3,200.0	2.00	233.77	3,200.0	-2.1	-2.8	-1.7	1.00	1.00	0.00
3,300.0	3.00	233.77	3,299.9	-4.6	-6.3	-3.9	1.00	1.00	0.00
3,400.0	4.00	233.77	3,399.7	-8.2	-11.3	-7.0	1.00	1.00	0.00
3,475.4	4.75	233.77	3,474.9	-11.7	-15.9	-9.8	1.00	1.00	0.00
3,500.0	4.75	233.77	3,499.4	-12.9	-17.5	-10.8	0.00	0.00	0.00
3,600.0	4.75	233.77	3,599.0	-17.8	-24.2	-15.0	0.00	0.00	0.00
3,700.0	4.75	233.77	3,698.7	-22.7	-30.9	-19.1	0.00	0.00	0.00
3,800.0	4.75	233.77	3,798.3	-27.6	-37.6	-23.2	0.00	0.00	0.00
3,900.0	4.75	233.77	3,898.0	-32.5	-44.3	-27.4	0.00	0.00	0.00
4,000.0	4.75	233.77	3,997.6	-37.4	-51.0	-31.5	0.00	0.00	0.00
4,100.0	4.75	233.77	4,097.3	-42.3	-57.7	-35.6	0.00	0.00	0.00
4,200.0	4.75	233.77	4,197.0	-47.1	-64.3	-39.8	0.00	0.00	0.00
4,300.0	4.75	233.77	4,296.6	-52.0	-71.0	-43.9	0.00	0.00	0.00
4,400.0	4.75	233.77	4,396.3	-56.9	-77.7	-48.0	0.00	0.00	0.00
4,500.0	4.75	233.77	4,495.9	-61.8	-84.4	-52.2	0.00	0.00	0.00
4,600.0	4.75	233.77	4,595.6	-66.7	-91.1	-56.3	0.00	0.00	0.00
4,700.0	4.75	233.77	4,695.2	-71.6	-97.8	-60.4	0.00	0.00	0.00
4,800.0	4.75	233.77	4,794.9	-76.5	-104.5	-64.6	0.00	0.00	0.00
4,900.0	4.75	233.77	4,894.6	-81.4	-111.1	-68.7	0.00	0.00	0.00
5,000.0	4.75	233.77	4,994.2	-86.3	-117.8	-72.8	0.00	0.00	0.00
5,100.0	4.75	233.77	5,093.9	-91.2	-124.5	-76.9	0.00	0.00	0.00
5,200.0	4.75	233.77	5,193.5	-96.1	-131.2	-81.1	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: #301H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:
TVD Reference: Kb = 25 @ 3479.0usft
MD Reference: Kb = 25 @ 3479.0usft
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	4.75	233.77	5,293.2	-101.0	-137.9	-85.2	0.00	0.00	0.00
5,400.0	4.75	233.77	5,392.8	-105.9	-144.6	-89.3	0.00	0.00	0.00
5,500.0	4.75	233.77	5,492.5	-110.8	-151.3	-93.5	0.00	0.00	0.00
5,600.0	4.75	233.77	5,592.1	-115.7	-157.9	-97.6	0.00	0.00	0.00
5,700.0	4.75	233.77	5,691.8	-120.6	-164.6	-101.7	0.00	0.00	0.00
5,800.0	4.75	233.77	5,791.5	-125.5	-171.3	-105.9	0.00	0.00	0.00
5,900.0	4.75	233.77	5,891.1	-130.4	-178.0	-110.0	0.00	0.00	0.00
6,000.0	4.75	233.77	5,990.8	-135.3	-184.7	-114.1	0.00	0.00	0.00
6,100.0	4.75	233.77	6,090.4	-140.2	-191.4	-118.3	0.00	0.00	0.00
6,200.0	4.75	233.77	6,190.1	-145.1	-198.1	-122.4	0.00	0.00	0.00
6,300.0	4.75	233.77	6,289.7	-150.0	-204.7	-126.5	0.00	0.00	0.00
6,400.0	4.75	233.77	6,389.4	-154.9	-211.4	-130.7	0.00	0.00	0.00
6,500.0	4.75	233.77	6,489.0	-159.8	-218.1	-134.8	0.00	0.00	0.00
6,600.0	4.75	233.77	6,588.7	-164.7	-224.8	-138.9	0.00	0.00	0.00
6,700.0	4.75	233.77	6,688.4	-169.6	-231.5	-143.1	0.00	0.00	0.00
6,800.0	4.75	233.77	6,788.0	-174.5	-238.2	-147.2	0.00	0.00	0.00
6,900.0	4.75	233.77	6,887.7	-179.4	-244.9	-151.3	0.00	0.00	0.00
7,000.0	4.75	233.77	6,987.3	-184.3	-251.5	-155.5	0.00	0.00	0.00
7,100.0	4.75	233.77	7,087.0	-189.2	-258.2	-159.6	0.00	0.00	0.00
7,200.0	4.75	233.77	7,186.6	-194.1	-264.9	-163.7	0.00	0.00	0.00
7,300.0	4.75	233.77	7,286.3	-199.0	-271.6	-167.8	0.00	0.00	0.00
7,400.0	4.75	233.77	7,386.0	-203.9	-278.3	-172.0	0.00	0.00	0.00
7,500.0	4.75	233.77	7,485.6	-208.8	-285.0	-176.1	0.00	0.00	0.00
7,600.0	4.75	233.77	7,585.3	-213.7	-291.7	-180.2	0.00	0.00	0.00
7,700.0	4.75	233.77	7,684.9	-218.6	-298.3	-184.4	0.00	0.00	0.00
7,800.0	4.75	233.77	7,784.6	-223.5	-305.0	-188.5	0.00	0.00	0.00
7,900.0	4.75	233.77	7,884.2	-228.4	-311.7	-192.6	0.00	0.00	0.00
8,000.0	4.75	233.77	7,983.9	-233.3	-318.4	-196.8	0.00	0.00	0.00
8,100.0	4.75	233.77	8,083.5	-238.2	-325.1	-200.9	0.00	0.00	0.00
8,200.0	4.75	233.77	8,183.2	-243.1	-331.8	-205.0	0.00	0.00	0.00
8,300.0	4.75	233.77	8,282.9	-248.0	-338.5	-209.2	0.00	0.00	0.00
8,400.0	4.75	233.77	8,382.5	-252.9	-345.1	-213.3	0.00	0.00	0.00
8,500.0	4.75	233.77	8,482.2	-257.8	-351.8	-217.4	0.00	0.00	0.00
8,600.0	4.75	233.77	8,581.8	-262.7	-358.5	-221.6	0.00	0.00	0.00
8,700.0	4.75	233.77	8,681.5	-267.6	-365.2	-225.7	0.00	0.00	0.00
8,800.0	4.75	233.77	8,781.1	-272.5	-371.9	-229.8	0.00	0.00	0.00
8,900.0	4.75	233.77	8,880.8	-277.4	-378.6	-234.0	0.00	0.00	0.00
9,000.0	4.75	233.77	8,980.4	-282.3	-385.3	-238.1	0.00	0.00	0.00
9,100.0	4.75	233.77	9,080.1	-287.2	-391.9	-242.2	0.00	0.00	0.00
9,200.0	4.75	233.77	9,179.8	-292.1	-398.6	-246.3	0.00	0.00	0.00
9,300.0	4.75	233.77	9,279.4	-297.0	-405.3	-250.5	0.00	0.00	0.00
9,400.0	4.75	233.77	9,379.1	-301.9	-412.0	-254.6	0.00	0.00	0.00
9,430.8	4.75	233.77	9,409.8	-303.4	-414.1	-255.9	0.00	0.00	0.00
9,450.0	3.90	262.57	9,428.9	-304.0	-415.3	-256.3	12.00	-4.43	150.03
9,475.0	4.64	302.54	9,453.8	-303.5	-417.0	-255.7	12.00	2.95	159.87
9,500.0	6.77	324.32	9,478.7	-301.8	-418.8	-253.8	12.00	8.51	87.13
9,525.0	9.39	334.93	9,503.5	-298.7	-420.5	-250.5	12.00	10.46	42.45
9,550.0	12.18	340.84	9,528.0	-294.4	-422.2	-246.0	12.00	11.17	23.63
9,575.0	15.05	344.55	9,552.3	-288.8	-423.9	-240.3	12.00	11.49	14.82
9,600.0	17.96	347.08	9,576.3	-281.9	-425.7	-233.2	12.00	11.65	10.14
9,625.0	20.90	348.92	9,599.9	-273.8	-427.4	-224.9	12.00	11.75	7.38
9,650.0	23.85	350.33	9,623.0	-264.4	-429.1	-215.5	12.00	11.81	5.63
9,675.0	26.81	351.44	9,645.6	-253.8	-430.8	-204.8	12.00	11.85	4.45
9,700.0	29.78	352.35	9,667.6	-242.1	-432.4	-192.9	12.00	11.88	3.62



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #301H
Company:	EOG Resources - Midland	TVD Reference:	Kb = 25 @ 3479.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 25 @ 3479.0usft
Site:	Grendel 2 State	North Reference:	Grid
Well:	#301H	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)
9,725.0	32.76	353.10	9,689.0	-229.2	-434.1	-180.0	12.00	11.90	3.02
9,750.0	35.74	353.74	9,709.6	-215.3	-435.7	-165.9	12.00	11.91	2.57
9,775.0	38.72	354.30	9,729.5	-200.2	-437.3	-150.8	12.00	11.92	2.22
9,800.0	41.70	354.79	9,748.6	-184.2	-438.8	-134.6	12.00	11.93	1.95
9,825.0	44.69	355.22	9,766.8	-167.1	-440.3	-117.5	12.00	11.94	1.73
9,850.0	47.67	355.61	9,784.1	-149.1	-441.7	-99.5	12.00	11.95	1.56
9,875.0	50.66	355.97	9,800.5	-130.3	-443.1	-80.6	12.00	11.95	1.42
9,900.0	53.65	356.29	9,815.8	-110.6	-444.4	-60.9	12.00	11.96	1.30
9,925.0	56.64	356.59	9,830.1	-90.1	-445.7	-40.4	12.00	11.96	1.21
9,950.0	59.63	356.87	9,843.3	-68.9	-446.9	-19.2	12.00	11.96	1.13
9,975.0	62.62	357.14	9,855.4	-47.1	-448.1	2.7	12.00	11.96	1.06
10,000.0	65.61	357.39	9,866.3	-24.6	-449.1	25.1	12.00	11.97	1.00
10,014.5	67.35	357.53	9,872.1	-11.3	-449.7	38.4	12.00	11.97	0.97
FTP(Grendel 2 state #301H)									
10,025.0	68.60	357.63	9,876.0	-1.6	-450.1	48.1	12.00	11.97	0.94
10,050.0	71.60	357.86	9,884.5	21.9	-451.1	71.5	12.00	11.97	0.92
10,075.0	74.59	358.08	9,891.8	45.8	-451.9	95.4	12.00	11.97	0.89
10,100.0	77.58	358.30	9,897.8	70.1	-452.7	119.6	12.00	11.97	0.86
10,125.0	80.57	358.51	9,902.5	94.6	-453.4	144.0	12.00	11.97	0.84
10,150.0	83.57	358.71	9,906.0	119.3	-454.0	168.7	12.00	11.97	0.83
10,175.0	86.56	358.92	9,908.1	144.2	-454.5	193.5	12.00	11.97	0.82
10,200.0	89.55	359.12	9,909.0	169.2	-454.9	218.4	12.00	11.97	0.81
10,203.7	90.00	359.15	9,909.0	173.0	-455.0	222.1	12.00	11.97	0.81
10,300.0	90.00	359.15	9,909.0	269.2	-456.4	317.9	0.00	0.00	0.00
10,400.0	90.00	359.15	9,909.0	369.2	-457.9	417.5	0.00	0.00	0.00
10,500.0	90.00	359.15	9,909.0	469.2	-459.3	517.0	0.00	0.00	0.00
10,600.0	90.00	359.15	9,909.0	569.2	-460.8	616.5	0.00	0.00	0.00
10,700.0	90.00	359.15	9,909.0	669.2	-462.3	716.1	0.00	0.00	0.00
10,800.0	90.00	359.15	9,909.0	769.2	-463.8	815.6	0.00	0.00	0.00
10,900.0	90.00	359.15	9,909.0	869.1	-465.3	915.2	0.00	0.00	0.00
11,000.0	90.00	359.15	9,909.0	969.1	-466.7	1,014.7	0.00	0.00	0.00
11,100.0	90.00	359.15	9,909.0	1,069.1	-468.2	1,114.3	0.00	0.00	0.00
11,200.0	90.00	359.15	9,909.0	1,169.1	-469.7	1,213.8	0.00	0.00	0.00
11,300.0	90.00	359.15	9,909.0	1,269.1	-471.2	1,313.3	0.00	0.00	0.00
11,400.0	90.00	359.15	9,909.0	1,369.1	-472.7	1,412.9	0.00	0.00	0.00
11,500.0	90.00	359.15	9,909.0	1,469.1	-474.1	1,512.4	0.00	0.00	0.00
11,600.0	90.00	359.15	9,909.0	1,569.1	-475.6	1,612.0	0.00	0.00	0.00
11,700.0	90.00	359.15	9,909.0	1,669.1	-477.1	1,711.5	0.00	0.00	0.00
11,800.0	90.00	359.15	9,909.0	1,769.0	-478.6	1,811.0	0.00	0.00	0.00
11,900.0	90.00	359.15	9,909.0	1,869.0	-480.1	1,910.6	0.00	0.00	0.00
12,000.0	90.00	359.15	9,909.0	1,969.0	-481.5	2,010.1	0.00	0.00	0.00
12,100.0	90.00	359.15	9,909.0	2,069.0	-483.0	2,109.7	0.00	0.00	0.00
12,200.0	90.00	359.15	9,909.0	2,169.0	-484.5	2,209.2	0.00	0.00	0.00
12,300.0	90.00	359.15	9,909.0	2,269.0	-486.0	2,308.8	0.00	0.00	0.00
12,400.0	90.00	359.15	9,909.0	2,369.0	-487.5	2,408.3	0.00	0.00	0.00
12,500.0	90.00	359.15	9,909.0	2,469.0	-488.9	2,507.8	0.00	0.00	0.00
12,600.0	90.00	359.15	9,909.0	2,569.0	-490.4	2,607.4	0.00	0.00	0.00
12,700.0	90.00	359.15	9,909.0	2,668.9	-491.9	2,706.9	0.00	0.00	0.00
12,800.0	90.00	359.15	9,909.0	2,768.9	-493.4	2,806.5	0.00	0.00	0.00
12,900.0	90.00	359.15	9,909.0	2,868.9	-494.9	2,906.0	0.00	0.00	0.00
13,000.0	90.00	359.15	9,909.0	2,968.9	-496.3	3,005.6	0.00	0.00	0.00
13,100.0	90.00	359.15	9,909.0	3,068.9	-497.8	3,105.1	0.00	0.00	0.00
13,200.0	90.00	359.15	9,909.0	3,168.9	-499.3	3,204.6	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: #301H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #301H
TVD Reference: Kb = 25 @ 3479.0usft
MD Reference: Kb = 25 @ 3479.0usft
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)
13,300.0	90.00	359.15	9,909.0	3,268.9	-500.8	3,304.2	0.00	0.00	0.00
13,400.0	90.00	359.15	9,909.0	3,368.9	-502.3	3,403.7	0.00	0.00	0.00
13,500.0	90.00	359.15	9,909.0	3,468.9	-503.7	3,503.3	0.00	0.00	0.00
13,600.0	90.00	359.15	9,909.0	3,568.9	-505.2	3,602.8	0.00	0.00	0.00
13,700.0	90.00	359.15	9,909.0	3,668.8	-506.7	3,702.3	0.00	0.00	0.00
13,800.0	90.00	359.15	9,909.0	3,768.8	-508.2	3,801.9	0.00	0.00	0.00
13,900.0	90.00	359.15	9,909.0	3,868.8	-509.7	3,901.4	0.00	0.00	0.00
14,000.0	90.00	359.15	9,909.0	3,968.8	-511.1	4,001.0	0.00	0.00	0.00
14,100.0	90.00	359.15	9,909.0	4,068.8	-512.6	4,100.5	0.00	0.00	0.00
14,200.0	90.00	359.15	9,909.0	4,168.8	-514.1	4,200.1	0.00	0.00	0.00
14,300.0	90.00	359.15	9,909.0	4,268.8	-515.6	4,299.6	0.00	0.00	0.00
14,400.0	90.00	359.15	9,909.0	4,368.8	-517.1	4,399.1	0.00	0.00	0.00
14,500.0	90.00	359.15	9,909.0	4,468.8	-518.5	4,498.7	0.00	0.00	0.00
14,600.0	90.00	359.15	9,909.0	4,568.7	-520.0	4,598.2	0.00	0.00	0.00
14,700.0	90.00	359.15	9,909.0	4,668.7	-521.5	4,697.8	0.00	0.00	0.00
14,734.3	90.00	359.15	9,909.0	4,703.0	-522.0	4,731.9	0.00	0.00	0.00
PBHL(Grendel 2 state #301H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(Grendel 2 state #301H) - plan hits target center - Point	0.00	0.00	9,909.0	4,703.0	-522.0	457,252.00	846,612.00	32° 15' 11.525 N	103° 20' 45.012 W
FTP(Grendel 2 state #301H) - plan misses target center by 40.2usft at 10014.5usft MD (9872.1 TVD, -11.3 N, -449.7 E) - Point	0.00	0.00	9,909.0	-27.0	-452.0	452,522.00	846,682.00	32° 14' 24.718 N	103° 20' 44.704 W