



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Mamba 30 State Com

#708H

OH

Plan: Plan #0.1

Standard Planning Report

17 October, 2018

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3581.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3581.0usft
Site:	Mamba 30 State Com	North Reference:	Grid
Well:	#708H	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	Mamba 30 State Com				
Site Position:		Northing:	430,807.00 usft	Latitude:	32° 10' 56.143 N
From:	Map	Easting:	767,053.00 usft	Longitude:	103° 36' 13.509 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#708H					
Well Position	+N/-S	370.0 usft	Northing:	431,177.00 usft	Latitude:	32° 11' 0.095 N
	+E/-W	-4,373.0 usft	Easting:	762,680.00 usft	Longitude:	103° 37' 4.362 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,556.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/19/2018	6.84	60.00	47,778.91257738

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)	Direction (°)	
	0.0	0.0	0.0	4.44	

Plan Survey Tool Program	Date 10/17/2018				
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,408.7 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	
3,248.4	4.97	150.29	3,248.1	-9.4	5.3	2.00	2.00	0.00	150.29	
11,759.7	4.97	150.29	11,727.4	-649.6	370.7	0.00	0.00	0.00	0.00	
12,008.1	0.00	0.00	11,975.5	-659.0	376.0	2.00	-2.00	0.00	180.00	KOP (Mamba 30 Stat
12,758.1	90.00	359.68	12,453.0	-181.5	373.3	12.00	12.00	-0.04	359.68	
17,408.7	90.00	359.68	12,453.0	4,469.0	347.0	0.00	0.00	0.00	0.00	PBHL (Mamba 30 Sta

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Site:	Mamba 30 State Com	North Reference:	Grid
Well:	#708H	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)	
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	2.00	150.29	3,100.0	-1.5	0.9	-1.4	2.00	2.00	0.00	
3,200.0	4.00	150.29	3,199.8	-6.1	3.5	-5.8	2.00	2.00	0.00	
3,248.4	4.97	150.29	3,248.1	-9.4	5.3	-8.9	2.00	2.00	0.00	
3,300.0	4.97	150.29	3,299.5	-13.2	7.5	-12.6	0.00	0.00	0.00	
3,400.0	4.97	150.29	3,399.1	-20.8	11.8	-19.8	0.00	0.00	0.00	
3,500.0	4.97	150.29	3,498.7	-28.3	16.1	-26.9	0.00	0.00	0.00	
3,600.0	4.97	150.29	3,598.4	-35.8	20.4	-34.1	0.00	0.00	0.00	
3,700.0	4.97	150.29	3,698.0	-43.3	24.7	-41.3	0.00	0.00	0.00	
3,800.0	4.97	150.29	3,797.6	-50.8	29.0	-48.4	0.00	0.00	0.00	
3,900.0	4.97	150.29	3,897.2	-58.4	33.3	-55.6	0.00	0.00	0.00	
4,000.0	4.97	150.29	3,996.9	-65.9	37.6	-62.8	0.00	0.00	0.00	
4,100.0	4.97	150.29	4,096.5	-73.4	41.9	-70.0	0.00	0.00	0.00	
4,200.0	4.97	150.29	4,196.1	-80.9	46.2	-77.1	0.00	0.00	0.00	
4,300.0	4.97	150.29	4,295.7	-88.5	50.5	-84.3	0.00	0.00	0.00	
4,400.0	4.97	150.29	4,395.4	-96.0	54.8	-91.5	0.00	0.00	0.00	
4,500.0	4.97	150.29	4,495.0	-103.5	59.1	-98.6	0.00	0.00	0.00	
4,600.0	4.97	150.29	4,594.6	-111.0	63.3	-105.8	0.00	0.00	0.00	
4,700.0	4.97	150.29	4,694.2	-118.6	67.6	-113.0	0.00	0.00	0.00	
4,800.0	4.97	150.29	4,793.9	-126.1	71.9	-120.1	0.00	0.00	0.00	
4,900.0	4.97	150.29	4,893.5	-133.6	76.2	-127.3	0.00	0.00	0.00	
5,000.0	4.97	150.29	4,993.1	-141.1	80.5	-134.5	0.00	0.00	0.00	
5,100.0	4.97	150.29	5,092.7	-148.6	84.8	-141.6	0.00	0.00	0.00	
5,200.0	4.97	150.29	5,192.4	-156.2	89.1	-148.8	0.00	0.00	0.00	

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Site:	Mamba 30 State Com	North Reference:	Grid
Well:	#708H	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)
5,300.0	4.97	150.29	5,292.0	-163.7	93.4	-156.0	0.00	0.00	0.00
5,400.0	4.97	150.29	5,391.6	-171.2	97.7	-163.1	0.00	0.00	0.00
5,500.0	4.97	150.29	5,491.2	-178.7	102.0	-170.3	0.00	0.00	0.00
5,600.0	4.97	150.29	5,590.9	-186.3	106.3	-177.5	0.00	0.00	0.00
5,700.0	4.97	150.29	5,690.5	-193.8	110.6	-184.6	0.00	0.00	0.00
5,800.0	4.97	150.29	5,790.1	-201.3	114.9	-191.8	0.00	0.00	0.00
5,900.0	4.97	150.29	5,889.7	-208.8	119.1	-199.0	0.00	0.00	0.00
6,000.0	4.97	150.29	5,989.3	-216.4	123.4	-206.1	0.00	0.00	0.00
6,100.0	4.97	150.29	6,089.0	-223.9	127.7	-213.3	0.00	0.00	0.00
6,200.0	4.97	150.29	6,188.6	-231.4	132.0	-220.5	0.00	0.00	0.00
6,300.0	4.97	150.29	6,288.2	-238.9	136.3	-227.6	0.00	0.00	0.00
6,400.0	4.97	150.29	6,387.8	-246.4	140.6	-234.8	0.00	0.00	0.00
6,500.0	4.97	150.29	6,487.5	-254.0	144.9	-242.0	0.00	0.00	0.00
6,600.0	4.97	150.29	6,587.1	-261.5	149.2	-249.2	0.00	0.00	0.00
6,700.0	4.97	150.29	6,686.7	-269.0	153.5	-256.3	0.00	0.00	0.00
6,800.0	4.97	150.29	6,786.3	-276.5	157.8	-263.5	0.00	0.00	0.00
6,900.0	4.97	150.29	6,886.0	-284.1	162.1	-270.7	0.00	0.00	0.00
7,000.0	4.97	150.29	6,985.6	-291.6	166.4	-277.8	0.00	0.00	0.00
7,100.0	4.97	150.29	7,085.2	-299.1	170.7	-285.0	0.00	0.00	0.00
7,200.0	4.97	150.29	7,184.8	-306.6	174.9	-292.2	0.00	0.00	0.00
7,300.0	4.97	150.29	7,284.5	-314.1	179.2	-299.3	0.00	0.00	0.00
7,400.0	4.97	150.29	7,384.1	-321.7	183.5	-306.5	0.00	0.00	0.00
7,500.0	4.97	150.29	7,483.7	-329.2	187.8	-313.7	0.00	0.00	0.00
7,600.0	4.97	150.29	7,583.3	-336.7	192.1	-320.8	0.00	0.00	0.00
7,700.0	4.97	150.29	7,683.0	-344.2	196.4	-328.0	0.00	0.00	0.00
7,800.0	4.97	150.29	7,782.6	-351.8	200.7	-335.2	0.00	0.00	0.00
7,900.0	4.97	150.29	7,882.2	-359.3	205.0	-342.3	0.00	0.00	0.00
8,000.0	4.97	150.29	7,981.8	-366.8	209.3	-349.5	0.00	0.00	0.00
8,100.0	4.97	150.29	8,081.5	-374.3	213.6	-356.7	0.00	0.00	0.00
8,200.0	4.97	150.29	8,181.1	-381.9	217.9	-363.8	0.00	0.00	0.00
8,300.0	4.97	150.29	8,280.7	-389.4	222.2	-371.0	0.00	0.00	0.00
8,400.0	4.97	150.29	8,380.3	-396.9	226.5	-378.2	0.00	0.00	0.00
8,500.0	4.97	150.29	8,480.0	-404.4	230.7	-385.3	0.00	0.00	0.00
8,600.0	4.97	150.29	8,579.6	-411.9	235.0	-392.5	0.00	0.00	0.00
8,700.0	4.97	150.29	8,679.2	-419.5	239.3	-399.7	0.00	0.00	0.00
8,800.0	4.97	150.29	8,778.8	-427.0	243.6	-406.9	0.00	0.00	0.00
8,900.0	4.97	150.29	8,878.4	-434.5	247.9	-414.0	0.00	0.00	0.00
9,000.0	4.97	150.29	8,978.1	-442.0	252.2	-421.2	0.00	0.00	0.00
9,100.0	4.97	150.29	9,077.7	-449.6	256.5	-428.4	0.00	0.00	0.00
9,200.0	4.97	150.29	9,177.3	-457.1	260.8	-435.5	0.00	0.00	0.00
9,300.0	4.97	150.29	9,276.9	-464.6	265.1	-442.7	0.00	0.00	0.00
9,400.0	4.97	150.29	9,376.6	-472.1	269.4	-449.9	0.00	0.00	0.00
9,500.0	4.97	150.29	9,476.2	-479.7	273.7	-457.0	0.00	0.00	0.00
9,600.0	4.97	150.29	9,575.8	-487.2	278.0	-464.2	0.00	0.00	0.00
9,700.0	4.97	150.29	9,675.4	-494.7	282.3	-471.4	0.00	0.00	0.00
9,800.0	4.97	150.29	9,775.1	-502.2	286.5	-478.5	0.00	0.00	0.00
9,900.0	4.97	150.29	9,874.7	-509.7	290.8	-485.7	0.00	0.00	0.00
10,000.0	4.97	150.29	9,974.3	-517.3	295.1	-492.9	0.00	0.00	0.00
10,100.0	4.97	150.29	10,073.9	-524.8	299.4	-500.0	0.00	0.00	0.00
10,200.0	4.97	150.29	10,173.6	-532.3	303.7	-507.2	0.00	0.00	0.00
10,300.0	4.97	150.29	10,273.2	-539.8	308.0	-514.4	0.00	0.00	0.00
10,400.0	4.97	150.29	10,372.8	-547.4	312.3	-521.5	0.00	0.00	0.00
10,500.0	4.97	150.29	10,472.4	-554.9	316.6	-528.7	0.00	0.00	0.00
10,600.0	4.97	150.29	10,572.1	-562.4	320.9	-535.9	0.00	0.00	0.00

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Wellbore:	OH		
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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)
10,700.0	4.97	150.29	10,671.7	-569.9	325.2	-543.0	0.00	0.00	0.00
10,800.0	4.97	150.29	10,771.3	-577.5	329.5	-550.2	0.00	0.00	0.00
10,900.0	4.97	150.29	10,870.9	-585.0	333.8	-557.4	0.00	0.00	0.00
11,000.0	4.97	150.29	10,970.6	-592.5	338.1	-564.6	0.00	0.00	0.00
11,100.0	4.97	150.29	11,070.2	-600.0	342.3	-571.7	0.00	0.00	0.00
11,200.0	4.97	150.29	11,169.8	-607.5	346.6	-578.9	0.00	0.00	0.00
11,300.0	4.97	150.29	11,269.4	-615.1	350.9	-586.1	0.00	0.00	0.00
11,400.0	4.97	150.29	11,369.1	-622.6	355.2	-593.2	0.00	0.00	0.00
11,500.0	4.97	150.29	11,468.7	-630.1	359.5	-600.4	0.00	0.00	0.00
11,600.0	4.97	150.29	11,568.3	-637.6	363.8	-607.6	0.00	0.00	0.00
11,700.0	4.97	150.29	11,667.9	-645.2	368.1	-614.7	0.00	0.00	0.00
11,759.7	4.97	150.29	11,727.4	-649.6	370.7	-619.0	0.00	0.00	0.00
11,800.0	4.16	150.29	11,767.6	-652.4	372.3	-621.7	2.00	-2.00	0.00
11,900.0	2.16	150.29	11,867.4	-657.2	375.0	-626.2	2.00	-2.00	0.00
12,008.1	0.00	0.00	11,975.5	-659.0	376.0	-627.9	2.00	-2.00	0.00
KOP (Mamba 30 State #708H)									
12,025.0	2.03	359.68	11,992.4	-658.7	376.0	-627.6	12.00	12.00	0.00
12,050.0	5.03	359.68	12,017.3	-657.2	376.0	-626.1	12.00	12.00	0.00
12,075.0	8.03	359.68	12,042.2	-654.3	376.0	-623.3	12.00	12.00	0.00
12,100.0	11.03	359.68	12,066.8	-650.2	376.0	-619.1	12.00	12.00	0.00
12,125.0	14.03	359.68	12,091.2	-644.8	375.9	-613.7	12.00	12.00	0.00
12,150.0	17.03	359.68	12,115.3	-638.1	375.9	-607.1	12.00	12.00	0.00
12,175.0	20.03	359.68	12,139.0	-630.1	375.8	-599.1	12.00	12.00	0.00
12,200.0	23.03	359.68	12,162.3	-621.0	375.8	-590.0	12.00	12.00	0.00
12,225.0	26.03	359.68	12,185.0	-610.6	375.7	-579.7	12.00	12.00	0.00
12,250.0	29.03	359.68	12,207.2	-599.0	375.7	-568.1	12.00	12.00	0.00
12,275.0	32.03	359.68	12,228.7	-586.3	375.6	-555.5	12.00	12.00	0.00
12,300.0	35.03	359.68	12,249.5	-572.5	375.5	-541.7	12.00	12.00	0.00
12,325.0	38.03	359.68	12,269.6	-557.6	375.4	-526.9	12.00	12.00	0.00
12,350.0	41.03	359.68	12,288.9	-541.7	375.3	-511.1	12.00	12.00	0.00
12,375.0	44.03	359.68	12,307.3	-524.8	375.2	-494.2	12.00	12.00	0.00
12,400.0	47.03	359.68	12,324.8	-507.0	375.1	-476.4	12.00	12.00	0.00
12,408.4	48.04	359.68	12,330.6	-500.8	375.1	-470.2	12.00	12.00	0.00
FTP (Mamba 30 State #708H)									
12,425.0	50.03	359.68	12,341.4	-488.3	375.0	-457.8	12.00	12.00	0.00
12,450.0	53.03	359.68	12,357.0	-468.7	374.9	-438.3	12.00	12.00	0.00
12,475.0	56.03	359.68	12,371.5	-448.3	374.8	-418.0	12.00	12.00	0.00
12,500.0	59.03	359.68	12,384.9	-427.3	374.7	-397.0	12.00	12.00	0.00
12,525.0	62.03	359.68	12,397.2	-405.5	374.6	-375.3	12.00	12.00	0.00
12,550.0	65.03	359.68	12,408.3	-383.1	374.4	-353.0	12.00	12.00	0.00
12,575.0	68.03	359.68	12,418.3	-360.2	374.3	-330.1	12.00	12.00	0.00
12,600.0	71.03	359.68	12,427.0	-336.8	374.2	-306.8	12.00	12.00	0.00
12,625.0	74.03	359.68	12,434.5	-312.9	374.0	-283.0	12.00	12.00	0.00
12,650.0	77.03	359.68	12,440.8	-288.7	373.9	-258.9	12.00	12.00	0.00
12,675.0	80.03	359.68	12,445.7	-264.2	373.8	-234.5	12.00	12.00	0.00
12,700.0	83.03	359.68	12,449.4	-239.5	373.6	-209.9	12.00	12.00	0.00
12,725.0	86.03	359.68	12,451.8	-214.6	373.5	-185.1	12.00	12.00	0.00
12,750.0	89.03	359.68	12,452.9	-189.7	373.3	-160.2	12.00	12.00	0.00
12,758.1	90.00	359.68	12,453.0	-181.5	373.3	-152.1	12.00	12.00	0.00
12,800.0	90.00	359.68	12,453.0	-139.7	373.1	-110.4	0.00	0.00	0.00
12,900.0	90.00	359.68	12,453.0	-39.7	372.5	-10.7	0.00	0.00	0.00
13,000.0	90.00	359.68	12,453.0	60.3	371.9	89.0	0.00	0.00	0.00
13,100.0	90.00	359.68	12,453.0	160.3	371.4	188.6	0.00	0.00	0.00
13,200.0	90.00	359.68	12,453.0	260.3	370.8	288.3	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3581.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3581.0usft
Site:	Mamba 30 State Com	North Reference:	Grid
Well:	#708H	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)
13,300.0	90.00	359.68	12,453.0	360.3	370.2	387.9	0.00	0.00	0.00
13,400.0	90.00	359.68	12,453.0	460.3	369.7	487.6	0.00	0.00	0.00
13,500.0	90.00	359.68	12,453.0	560.3	369.1	587.2	0.00	0.00	0.00
13,600.0	90.00	359.68	12,453.0	660.3	368.5	686.9	0.00	0.00	0.00
13,700.0	90.00	359.68	12,453.0	760.3	368.0	786.5	0.00	0.00	0.00
13,800.0	90.00	359.68	12,453.0	860.3	367.4	886.2	0.00	0.00	0.00
13,900.0	90.00	359.68	12,453.0	960.3	366.8	985.8	0.00	0.00	0.00
14,000.0	90.00	359.68	12,453.0	1,060.3	366.3	1,085.5	0.00	0.00	0.00
14,100.0	90.00	359.68	12,453.0	1,160.3	365.7	1,185.2	0.00	0.00	0.00
14,200.0	90.00	359.68	12,453.0	1,260.3	365.1	1,284.8	0.00	0.00	0.00
14,300.0	90.00	359.68	12,453.0	1,360.3	364.6	1,384.5	0.00	0.00	0.00
14,400.0	90.00	359.68	12,453.0	1,460.3	364.0	1,484.1	0.00	0.00	0.00
14,500.0	90.00	359.68	12,453.0	1,560.3	363.4	1,583.8	0.00	0.00	0.00
14,600.0	90.00	359.68	12,453.0	1,660.3	362.9	1,683.4	0.00	0.00	0.00
14,700.0	90.00	359.68	12,453.0	1,760.3	362.3	1,783.1	0.00	0.00	0.00
14,800.0	90.00	359.68	12,453.0	1,860.3	361.8	1,882.7	0.00	0.00	0.00
14,900.0	90.00	359.68	12,453.0	1,960.3	361.2	1,982.4	0.00	0.00	0.00
15,000.0	90.00	359.68	12,453.0	2,060.3	360.6	2,082.0	0.00	0.00	0.00
15,100.0	90.00	359.68	12,453.0	2,160.3	360.1	2,181.7	0.00	0.00	0.00
15,200.0	90.00	359.68	12,453.0	2,260.3	359.5	2,281.4	0.00	0.00	0.00
15,300.0	90.00	359.68	12,453.0	2,360.3	358.9	2,381.0	0.00	0.00	0.00
15,400.0	90.00	359.68	12,453.0	2,460.3	358.4	2,480.7	0.00	0.00	0.00
15,500.0	90.00	359.68	12,453.0	2,560.3	357.8	2,580.3	0.00	0.00	0.00
15,600.0	90.00	359.68	12,453.0	2,660.3	357.2	2,680.0	0.00	0.00	0.00
15,700.0	90.00	359.68	12,453.0	2,760.3	356.7	2,779.6	0.00	0.00	0.00
15,800.0	90.00	359.68	12,453.0	2,860.3	356.1	2,879.3	0.00	0.00	0.00
15,900.0	90.00	359.68	12,453.0	2,960.3	355.5	2,978.9	0.00	0.00	0.00
16,000.0	90.00	359.68	12,453.0	3,060.3	355.0	3,078.6	0.00	0.00	0.00
16,100.0	90.00	359.68	12,453.0	3,160.3	354.4	3,178.2	0.00	0.00	0.00
16,200.0	90.00	359.68	12,453.0	3,260.3	353.8	3,277.9	0.00	0.00	0.00
16,300.0	90.00	359.68	12,453.0	3,360.3	353.3	3,377.6	0.00	0.00	0.00
16,400.0	90.00	359.68	12,453.0	3,460.3	352.7	3,477.2	0.00	0.00	0.00
16,500.0	90.00	359.68	12,453.0	3,560.3	352.1	3,576.9	0.00	0.00	0.00
16,600.0	90.00	359.68	12,453.0	3,660.3	351.6	3,676.5	0.00	0.00	0.00
16,700.0	90.00	359.68	12,453.0	3,760.3	351.0	3,776.2	0.00	0.00	0.00
16,800.0	90.00	359.68	12,453.0	3,860.3	350.4	3,875.8	0.00	0.00	0.00
16,900.0	90.00	359.68	12,453.0	3,960.3	349.9	3,975.5	0.00	0.00	0.00
17,000.0	90.00	359.68	12,453.0	4,060.3	349.3	4,075.1	0.00	0.00	0.00
17,100.0	90.00	359.68	12,453.0	4,160.3	348.7	4,174.8	0.00	0.00	0.00
17,200.0	90.00	359.68	12,453.0	4,260.3	348.2	4,274.4	0.00	0.00	0.00
17,300.0	90.00	359.68	12,453.0	4,360.3	347.6	4,374.1	0.00	0.00	0.00
17,408.7	90.00	359.68	12,453.0	4,469.0	347.0	4,482.5	0.00	0.00	0.00
PBHL (Mamba 30 State #708H)									

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3581.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3581.0usft
Site:	Mamba 30 State Com	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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
KOP (Mamba 30 State # - plan hits target center - Point	0.00	0.00	11,975.5	-659.0	376.0	430,518.00	763,056.00	32° 10' 53.549 N	103° 37' 0.038 W
FTP (Mamba 30 State # - plan misses target center by 163.4usft at 12408.4usft MD (12330.6 TVD, -500.8 N, 375.1 E) - Point	0.00	0.00	12,453.0	-609.0	376.0	430,568.00	763,056.00	32° 10' 54.044 N	103° 37' 0.034 W
PBHL (Mamba 30 State - plan hits target center - Point	0.00	0.00	12,453.0	4,469.0	347.0	435,646.00	763,027.00	32° 11' 44.294 N	103° 36' 59.978 W



Lea County, NM (NAD 83 NME)

Mamba 30 State Com #708H

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: #708H

KB = 25 @ 3581.0usft
Northing 431177.00 Easting 762680.00 Latitude 32° 11' 0.095 N Longitude 103° 37' 4.362 W



Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.45°
Magnetic Field
Strength: 47778.5nT
Dip Angle: 60.00°
Date: 9/19/2018
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.45°
To convert a Magnetic Direction to a True Direction, Add 6.84° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3248.4	4.97	150.29	3248.1	-9.4	5.3	2.00	150.29	-8.9	
4	11759.7	4.97	150.29	11727.4	-649.6	370.7	0.00	0.00	-619.0	
5	12008.1	0.00	0.00	11975.5	-659.0	376.0	2.00	180.00	-627.9	KOP (Mamba 30 State #708H)
6	12758.1	90.00	359.68	12453.0	-181.5	373.3	12.00	359.68	-152.1	
7	17408.7	90.00	359.68	12453.0	4469.0	347.0	0.00	0.00	4482.5	PBHL (Mamba 30 State #708H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Mamba 30 State #708H)	11975.5	-659.0	376.0	430518.00	763056.00
PBHL (Mamba 30 State #708H)	12453.0	4469.0	347.0	435648.00	763027.00
FTP (Mamba 30 State #708H)	12453.0	-609.0	376.0	430568.00	763056.00

