



Amended

30-025-43819

HOBBS, NM

JUL 18 2018

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Ares 4 State

#703H

OH

Plan: Plan #0.4

Standard Planning Report

17 July, 2018

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Ares 4 State
Well: #703H
Wellbore: OH
Design: Plan #0.4

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25' @ 3611.0usft
MD Reference: KB = 25' @ 3611.0usft
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	Ares 4 State		
Site Position:		Northing:	451,993.00 usft
From:	Map	Easting:	777,413.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 14' 25.072 N
		Longitude:	103° 34' 11.215 W
		Grid Convergence:	0.41 °

Well	#703H		
Well Position	+N/-S	849.0 usft	Northing: 452,642.00 usft
	+E/-W	-824.0 usft	Easting: 776,589.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,586.0 usft
		Latitude:	32° 14' 31.551 N
		Longitude:	103° 34' 20.755 W
		Ground Level:	

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	5/19/2017	(°)
			6.96
			(°)
			60.08
			47,955.83001980

Design	Plan #0.4		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			2.02

Plan Survey Tool Program	Date 7/17/2018		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
1	0.0	17,496.0 Plan #0.4 (OH)	MWD
			OWSG MWD - Standard

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,352.8	7.06	168.48	4,351.9	-21.3	4.3	2.00	2.00	0.00	168.48	
11,742.4	7.06	168.48	11,685.6	-910.7	185.7	0.00	0.00	0.00	0.00	
12,095.3	0.00	0.00	12,037.5	-932.0	190.0	2.00	-2.00	0.00	180.00	KOP (Ares 4 State #7
12,845.2	90.00	359.53	12,515.0	-454.6	186.1	12.00	12.00	-0.06	359.53	
17,496.0	90.00	359.53	12,515.0	4,196.0	148.0	0.00	0.00	0.00	0.00	PBHL (Ares 4 State #

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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)
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	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	2.00	168.48	4,100.0	-1.7	0.3	-1.7	2.00	2.00	0.00
4,200.0	4.00	168.48	4,199.8	-6.8	1.4	-6.8	2.00	2.00	0.00
4,300.0	6.00	168.48	4,299.5	-15.4	3.1	-15.3	2.00	2.00	0.00
4,352.8	7.06	168.48	4,351.9	-21.3	4.3	-21.1	2.00	2.00	0.00
4,400.0	7.06	168.48	4,398.8	-26.9	5.5	-26.7	0.00	0.00	0.00
4,500.0	7.06	168.48	4,498.0	-39.0	7.9	-38.7	0.00	0.00	0.00
4,600.0	7.06	168.48	4,597.2	-51.0	10.4	-50.6	0.00	0.00	0.00
4,700.0	7.06	168.48	4,696.5	-63.1	12.9	-62.6	0.00	0.00	0.00
4,800.0	7.06	168.48	4,795.7	-75.1	15.3	-74.5	0.00	0.00	0.00
4,900.0	7.06	168.48	4,895.0	-87.1	17.8	-86.4	0.00	0.00	0.00
5,000.0	7.06	168.48	4,994.2	-99.2	20.2	-98.4	0.00	0.00	0.00
5,100.0	7.06	168.48	5,093.4	-111.2	22.7	-110.3	0.00	0.00	0.00
5,200.0	7.06	168.48	5,192.7	-123.2	25.1	-122.3	0.00	0.00	0.00

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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)
5,300.0	7.06	168.48	5,291.9	-135.3	27.6	-134.2	0.00	0.00	0.00
5,400.0	7.06	168.48	5,391.2	-147.3	30.0	-146.2	0.00	0.00	0.00
5,500.0	7.06	168.48	5,490.4	-159.3	32.5	-158.1	0.00	0.00	0.00
5,600.0	7.06	168.48	5,589.7	-171.4	34.9	-170.0	0.00	0.00	0.00
5,700.0	7.06	168.48	5,688.9	-183.4	37.4	-182.0	0.00	0.00	0.00
5,800.0	7.06	168.48	5,788.1	-195.5	39.8	-193.9	0.00	0.00	0.00
5,900.0	7.06	168.48	5,887.4	-207.5	42.3	-205.9	0.00	0.00	0.00
6,000.0	7.06	168.48	5,986.6	-219.5	44.8	-217.8	0.00	0.00	0.00
6,100.0	7.06	168.48	6,085.9	-231.6	47.2	-229.8	0.00	0.00	0.00
6,200.0	7.06	168.48	6,185.1	-243.6	49.7	-241.7	0.00	0.00	0.00
6,300.0	7.06	168.48	6,284.4	-255.6	52.1	-253.6	0.00	0.00	0.00
6,400.0	7.06	168.48	6,383.6	-267.7	54.6	-265.6	0.00	0.00	0.00
6,500.0	7.06	168.48	6,482.8	-279.7	57.0	-277.5	0.00	0.00	0.00
6,600.0	7.06	168.48	6,582.1	-291.8	59.5	-289.5	0.00	0.00	0.00
6,700.0	7.06	168.48	6,681.3	-303.8	61.9	-301.4	0.00	0.00	0.00
6,800.0	7.06	168.48	6,780.6	-315.8	64.4	-313.4	0.00	0.00	0.00
6,900.0	7.06	168.48	6,879.8	-327.9	66.8	-325.3	0.00	0.00	0.00
7,000.0	7.06	168.48	6,979.1	-339.9	69.3	-337.2	0.00	0.00	0.00
7,100.0	7.06	168.48	7,078.3	-351.9	71.7	-349.2	0.00	0.00	0.00
7,200.0	7.06	168.48	7,177.5	-364.0	74.2	-361.1	0.00	0.00	0.00
7,300.0	7.06	168.48	7,276.8	-376.0	76.7	-373.1	0.00	0.00	0.00
7,400.0	7.06	168.48	7,376.0	-388.0	79.1	-385.0	0.00	0.00	0.00
7,500.0	7.06	168.48	7,475.3	-400.1	81.6	-397.0	0.00	0.00	0.00
7,600.0	7.06	168.48	7,574.5	-412.1	84.0	-408.9	0.00	0.00	0.00
7,700.0	7.06	168.48	7,673.8	-424.2	86.5	-420.8	0.00	0.00	0.00
7,800.0	7.06	168.48	7,773.0	-436.2	88.9	-432.8	0.00	0.00	0.00
7,900.0	7.06	168.48	7,872.2	-448.2	91.4	-444.7	0.00	0.00	0.00
8,000.0	7.06	168.48	7,971.5	-460.3	93.8	-456.7	0.00	0.00	0.00
8,100.0	7.06	168.48	8,070.7	-472.3	96.3	-468.6	0.00	0.00	0.00
8,200.0	7.06	168.48	8,170.0	-484.3	98.7	-480.6	0.00	0.00	0.00
8,300.0	7.06	168.48	8,269.2	-496.4	101.2	-492.5	0.00	0.00	0.00
8,400.0	7.06	168.48	8,368.5	-508.4	103.6	-504.4	0.00	0.00	0.00
8,500.0	7.06	168.48	8,467.7	-520.5	106.1	-516.4	0.00	0.00	0.00
8,600.0	7.06	168.48	8,566.9	-532.5	108.6	-528.3	0.00	0.00	0.00
8,700.0	7.06	168.48	8,666.2	-544.5	111.0	-540.3	0.00	0.00	0.00
8,800.0	7.06	168.48	8,765.4	-556.6	113.5	-552.2	0.00	0.00	0.00
8,900.0	7.06	168.48	8,864.7	-568.6	115.9	-564.2	0.00	0.00	0.00
9,000.0	7.06	168.48	8,963.9	-580.6	118.4	-576.1	0.00	0.00	0.00
9,100.0	7.06	168.48	9,063.2	-592.7	120.8	-588.0	0.00	0.00	0.00
9,200.0	7.06	168.48	9,162.4	-604.7	123.3	-600.0	0.00	0.00	0.00
9,300.0	7.06	168.48	9,261.6	-616.7	125.7	-611.9	0.00	0.00	0.00
9,400.0	7.06	168.48	9,360.9	-628.8	128.2	-623.9	0.00	0.00	0.00
9,500.0	7.06	168.48	9,460.1	-640.8	130.6	-635.8	0.00	0.00	0.00
9,600.0	7.06	168.48	9,559.4	-652.9	133.1	-647.8	0.00	0.00	0.00
9,700.0	7.06	168.48	9,658.6	-664.9	135.5	-659.7	0.00	0.00	0.00
9,800.0	7.06	168.48	9,757.9	-676.9	138.0	-671.6	0.00	0.00	0.00
9,900.0	7.06	168.48	9,857.1	-689.0	140.5	-683.6	0.00	0.00	0.00
10,000.0	7.06	168.48	9,956.3	-701.0	142.9	-695.5	0.00	0.00	0.00
10,100.0	7.06	168.48	10,055.6	-713.0	145.4	-707.5	0.00	0.00	0.00
10,200.0	7.06	168.48	10,154.8	-725.1	147.8	-719.4	0.00	0.00	0.00
10,300.0	7.06	168.48	10,254.1	-737.1	150.3	-731.4	0.00	0.00	0.00
10,400.0	7.06	168.48	10,353.3	-749.2	152.7	-743.3	0.00	0.00	0.00
10,500.0	7.06	168.48	10,452.5	-761.2	155.2	-755.2	0.00	0.00	0.00
10,600.0	7.06	168.48	10,551.8	-773.2	157.6	-767.2	0.00	0.00	0.00

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10,700.0	7.06	168.48	10,651.0	-785.3	160.1	-779.1	0.00	0.00	0.00
10,800.0	7.06	168.48	10,750.3	-797.3	162.5	-791.1	0.00	0.00	0.00
10,900.0	7.06	168.48	10,849.5	-809.3	165.0	-803.0	0.00	0.00	0.00
11,000.0	7.06	168.48	10,948.8	-821.4	167.4	-815.0	0.00	0.00	0.00
11,100.0	7.06	168.48	11,048.0	-833.4	169.9	-826.9	0.00	0.00	0.00
11,200.0	7.06	168.48	11,147.2	-845.4	172.4	-838.8	0.00	0.00	0.00
11,300.0	7.06	168.48	11,246.5	-857.5	174.8	-850.8	0.00	0.00	0.00
11,400.0	7.06	168.48	11,345.7	-869.5	177.3	-862.7	0.00	0.00	0.00
11,500.0	7.06	168.48	11,445.0	-881.6	179.7	-874.7	0.00	0.00	0.00
11,600.0	7.06	168.48	11,544.2	-893.6	182.2	-886.6	0.00	0.00	0.00
11,700.0	7.06	168.48	11,643.5	-905.6	184.6	-898.6	0.00	0.00	0.00
11,742.4	7.06	168.48	11,685.6	-910.7	185.7	-903.6	0.00	0.00	0.00
11,800.0	5.91	168.48	11,742.8	-917.1	187.0	-909.9	2.00	-2.00	0.00
11,900.0	3.91	168.48	11,842.4	-925.5	188.7	-918.3	2.00	-2.00	0.00
12,000.0	1.91	168.48	11,942.3	-930.4	189.7	-923.2	2.00	-2.00	0.00
12,095.3	0.00	0.00	12,037.5	-932.0	190.0	-924.7	2.00	-2.00	0.00
KOP (Ares 4 State #703H)									
12,100.0	0.57	359.53	12,042.2	-932.0	190.0	-924.7	12.00	12.00	0.00
12,125.0	3.57	359.53	12,067.2	-931.1	190.0	-923.8	12.00	12.00	0.00
12,150.0	6.57	359.53	12,092.1	-928.9	190.0	-921.6	12.00	12.00	0.00
12,175.0	9.57	359.53	12,116.9	-925.4	189.9	-918.1	12.00	12.00	0.00
12,200.0	12.57	359.53	12,141.4	-920.6	189.9	-913.3	12.00	12.00	0.00
12,225.0	15.57	359.53	12,165.7	-914.5	189.9	-907.2	12.00	12.00	0.00
12,250.0	18.57	359.53	12,189.6	-907.1	189.8	-899.9	12.00	12.00	0.00
12,275.0	21.57	359.53	12,213.0	-898.6	189.7	-891.3	12.00	12.00	0.00
12,300.0	24.57	359.53	12,236.0	-888.8	189.6	-881.5	12.00	12.00	0.00
12,325.0	27.57	359.53	12,258.5	-877.8	189.6	-870.6	12.00	12.00	0.00
12,350.0	30.57	359.53	12,280.3	-865.6	189.5	-858.4	12.00	12.00	0.00
12,375.0	33.57	359.53	12,301.5	-852.4	189.3	-845.2	12.00	12.00	0.00
12,400.0	36.57	359.53	12,322.0	-838.0	189.2	-830.8	12.00	12.00	0.00
12,425.0	39.57	359.53	12,341.7	-822.6	189.1	-815.4	12.00	12.00	0.00
12,450.0	42.57	359.53	12,360.5	-806.2	189.0	-799.0	12.00	12.00	0.00
12,475.0	45.57	359.53	12,378.5	-788.8	188.8	-781.6	12.00	12.00	0.00
12,499.7	48.54	359.53	12,395.3	-770.7	188.7	-763.5	12.00	12.00	0.00
FTP (Ares 4 State #703H)									
12,500.0	48.57	359.53	12,395.5	-770.5	188.7	-763.4	12.00	12.00	0.00
12,525.0	51.57	359.53	12,411.5	-751.3	188.5	-744.2	12.00	12.00	0.00
12,550.0	54.57	359.53	12,426.5	-731.3	188.4	-724.2	12.00	12.00	0.00
12,575.0	57.57	359.53	12,440.5	-710.6	188.2	-703.5	12.00	12.00	0.00
12,600.0	60.57	359.53	12,453.4	-689.2	188.0	-682.1	12.00	12.00	0.00
12,625.0	63.57	359.53	12,465.1	-667.1	187.8	-660.0	12.00	12.00	0.00
12,650.0	66.57	359.53	12,475.8	-644.4	187.6	-637.4	12.00	12.00	0.00
12,675.0	69.57	359.53	12,484.9	-621.2	187.5	-614.2	12.00	12.00	0.00
12,700.0	72.57	359.53	12,493.0	-597.6	187.3	-590.6	12.00	12.00	0.00
12,725.0	75.57	359.53	12,499.9	-573.5	187.1	-566.6	12.00	12.00	0.00
12,750.0	78.57	359.53	12,505.5	-549.2	186.9	-542.2	12.00	12.00	0.00
12,775.0	81.57	359.53	12,509.8	-524.5	186.7	-517.6	12.00	12.00	0.00
12,800.0	84.57	359.53	12,512.8	-499.7	186.5	-492.9	12.00	12.00	0.00
12,825.0	87.57	359.53	12,514.5	-474.8	186.3	-467.9	12.00	12.00	0.00
12,845.2	90.00	359.53	12,515.0	-454.6	186.1	-447.7	12.00	12.00	0.00
12,900.0	90.00	359.53	12,515.0	-399.8	185.6	-393.0	0.00	0.00	0.00
13,000.0	90.00	359.53	12,515.0	-299.8	184.8	-293.1	0.00	0.00	0.00
13,100.0	90.00	359.53	12,515.0	-199.8	184.0	-193.2	0.00	0.00	0.00
13,200.0	90.00	359.53	12,515.0	-99.8	183.2	-93.3	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ares 4 State
 Well: #703H
 Wellbore: OH
 Design: Plan #0.4

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25' @ 3611.0usft
 MD Reference: KB = 25' @ 3611.0usft
 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	359.53	12,515.0	0.2	182.4	6.6	0.00	0.00	0.00
13,400.0	90.00	359.53	12,515.0	100.2	181.5	106.5	0.00	0.00	0.00
13,500.0	90.00	359.53	12,515.0	200.2	180.7	206.4	0.00	0.00	0.00
13,600.0	90.00	359.53	12,515.0	300.2	179.9	306.3	0.00	0.00	0.00
13,700.0	90.00	359.53	12,515.0	400.2	179.1	406.2	0.00	0.00	0.00
13,800.0	90.00	359.53	12,515.0	500.2	178.3	506.1	0.00	0.00	0.00
13,900.0	90.00	359.53	12,515.0	600.2	177.5	606.0	0.00	0.00	0.00
14,000.0	90.00	359.53	12,515.0	700.2	176.6	705.9	0.00	0.00	0.00
14,100.0	90.00	359.53	12,515.0	800.2	175.8	805.9	0.00	0.00	0.00
14,200.0	90.00	359.53	12,515.0	900.2	175.0	905.8	0.00	0.00	0.00
14,300.0	90.00	359.53	12,515.0	1,000.1	174.2	1,005.7	0.00	0.00	0.00
14,400.0	90.00	359.53	12,515.0	1,100.1	173.4	1,105.6	0.00	0.00	0.00
14,500.0	90.00	359.53	12,515.0	1,200.1	172.5	1,205.5	0.00	0.00	0.00
14,600.0	90.00	359.53	12,515.0	1,300.1	171.7	1,305.4	0.00	0.00	0.00
14,700.0	90.00	359.53	12,515.0	1,400.1	170.9	1,405.3	0.00	0.00	0.00
14,800.0	90.00	359.53	12,515.0	1,500.1	170.1	1,505.2	0.00	0.00	0.00
14,900.0	90.00	359.53	12,515.0	1,600.1	169.3	1,605.1	0.00	0.00	0.00
15,000.0	90.00	359.53	12,515.0	1,700.1	168.4	1,705.0	0.00	0.00	0.00
15,100.0	90.00	359.53	12,515.0	1,800.1	167.6	1,804.9	0.00	0.00	0.00
15,200.0	90.00	359.53	12,515.0	1,900.1	166.8	1,904.8	0.00	0.00	0.00
15,300.0	90.00	359.53	12,515.0	2,000.1	166.0	2,004.7	0.00	0.00	0.00
15,400.0	90.00	359.53	12,515.0	2,100.1	165.2	2,104.6	0.00	0.00	0.00
15,500.0	90.00	359.53	12,515.0	2,200.1	164.3	2,204.5	0.00	0.00	0.00
15,600.0	90.00	359.53	12,515.0	2,300.1	163.5	2,304.4	0.00	0.00	0.00
15,700.0	90.00	359.53	12,515.0	2,400.1	162.7	2,404.3	0.00	0.00	0.00
15,800.0	90.00	359.53	12,515.0	2,500.1	161.9	2,504.3	0.00	0.00	0.00
15,900.0	90.00	359.53	12,515.0	2,600.1	161.1	2,604.2	0.00	0.00	0.00
16,000.0	90.00	359.53	12,515.0	2,700.1	160.3	2,704.1	0.00	0.00	0.00
16,100.0	90.00	359.53	12,515.0	2,800.1	159.4	2,804.0	0.00	0.00	0.00
16,200.0	90.00	359.53	12,515.0	2,900.1	158.6	2,903.9	0.00	0.00	0.00
16,300.0	90.00	359.53	12,515.0	3,000.1	157.8	3,003.8	0.00	0.00	0.00
16,400.0	90.00	359.53	12,515.0	3,100.1	157.0	3,103.7	0.00	0.00	0.00
16,500.0	90.00	359.53	12,515.0	3,200.1	156.2	3,203.6	0.00	0.00	0.00
16,600.0	90.00	359.53	12,515.0	3,300.1	155.3	3,303.5	0.00	0.00	0.00
16,700.0	90.00	359.53	12,515.0	3,400.1	154.5	3,403.4	0.00	0.00	0.00
16,800.0	90.00	359.53	12,515.0	3,500.1	153.7	3,503.3	0.00	0.00	0.00
16,900.0	90.00	359.53	12,515.0	3,600.1	152.9	3,603.2	0.00	0.00	0.00
17,000.0	90.00	359.53	12,515.0	3,700.1	152.1	3,703.1	0.00	0.00	0.00
17,100.0	90.00	359.53	12,515.0	3,800.1	151.2	3,803.0	0.00	0.00	0.00
17,200.0	90.00	359.53	12,515.0	3,900.1	150.4	3,902.9	0.00	0.00	0.00
17,300.0	90.00	359.53	12,515.0	4,000.0	149.6	4,002.8	0.00	0.00	0.00
17,400.0	90.00	359.53	12,515.0	4,100.0	148.8	4,102.7	0.00	0.00	0.00
17,496.0	90.00	359.53	12,515.0	4,196.0	148.0	4,196.6	0.00	0.00	0.00

PBHL (Ares 4 State #703H)

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Ares 4 State
Well: #703H
Wellbore: OH
Design: Plan #0.4

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25' @ 3611.0usft
MD Reference: KB = 25' @ 3611.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
KOP (Ares 4 State #703	0.00	0.00	12,037.5	-932.0	190.0	451,710.00	776,779.00	32° 14' 22.316 N	103° 34' 18.620 W
- plan hits target center									
- Point									
FTP (Ares 4 State #703H	0.00	0.00	12,515.0	-882.0	190.0	451,760.00	776,779.00	32° 14' 22.811 N	103° 34' 18.615 W
- plan misses target center by 163.5usft at 12499.7usft MD (12395.3 TVD, -770.7 N, 188.7 E)									
- Point									
PBHL (Ares 4 State #70:	0.00	0.00	12,515.0	4,196.0	148.0	456,838.00	776,737.00	32° 15' 13.061 N	103° 34' 18.685 W
- plan hits target center									
- Polygon									
Point 1			12,515.0	-5,077.6	72.0	451,760.40	776,809.00		
Point 2			12,515.0	-5,077.7	117.0	451,760.30	776,854.00		
Point 3			12,515.0	-5,152.5	117.3	451,685.50	776,854.30		
Point 4			12,515.0	-5,152.8	17.8	451,685.20	776,754.80		
Point 5			12,515.0	0.1	-29.1	456,838.10	776,707.90		

HOBBS OGD

JUL 18 2018

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Amended



Lea County, NM (NAD 83 NME)

Ares 4 State #703H

Plan #0.4

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: #703H

Ground Level: 3586.0
KB = 28' @ 3811.0surf
Northing 85842.00 Easting 776589.00 Latitude 32° 14' 51.551 N Longitude 103° 34' 10.755 W

SECTION DETAILS

Sec	MD	Inc	AJ	TVD	+W-S	+E-W	Dog	TFace	VFace	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4000.0	9.00	0.00	4000.0	9.0	0.0	0.00	0.00	0.0		
3	4382.6	7.06	189.48	4381.9	-21.3	4.3	2.00	189.49	-21.1		
4	11742.4	7.06	189.48	11685.8	-610.7	198.7	0.00	0.00	-603.8		
5	12096.3	0.00	0.00	12097.6	-632.8	180.0	3.00	180.00	-624.7		
6	12848.2	80.00	305.53	12816.0	-454.6	188.1	12.00	303.81	-447.7		
7	17488.0	80.00	309.63	12816.0	4196.0	148.0	0.00	0.00	4189.8		

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+W-S	+E-W	Northing	Easting
KOP (Area 4 State #703H)	12037.8	-832.0	190.0	481710.00	776779.00
PBHL (Area 4 State #703H)	12816.0	4196.0	148.0	486530.00	776757.00
FTP (Area 4 State #703H)	12816.0	-382.0	190.0	481700.00	776779.00

