

HOBBS OCD
MAY 22 2019
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Magnolia 15 Fed Com

#707H

OH

Design: OH

Midland PVA

18 March, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3333.0usft
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3333.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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	Magnolia 15 Fed Com		
Site Position:		Northing:	381,905.00 usft
From:	Map	Easting:	780,373.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 51.321 N
		Longitude:	103° 33' 42.598 W
		Grid Convergence:	0.41 °

Well	#707H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	1/9/2019	6.76
			Dip Angle (°)
			59.88
			Field Strength (nT)
			47,676.25098284

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			177.90

Survey Program	Date 3/18/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
169.0	19,905.0	Prodirectional MWD (OH)	MWD
			Description
			CWSG MWD - Standard



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Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (")	Ad (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	D/Leg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
166.0	0.20	21.60	166.0	0.3	0.1	0.12	0.12	0.00	-0.3	0.0	
222.0	0.40	45.10	222.0	0.5	0.3	0.41	0.36	41.96	-0.6	0.2	
398.0	0.40	45.20	398.0	1.4	1.2	0.00	0.00	0.06	-1.8	0.2	
569.0	0.70	49.20	569.0	2.5	2.4	0.18	0.18	2.34	-3.4	0.3	
661.0	0.70	48.30	661.0	3.2	3.2	0.01	0.00	-0.88	-4.5	0.3	
847.0	0.70	33.90	847.0	4.9	4.7	0.09	0.00	-7.74	-6.7	-1.2	
990.0	0.70	28.20	990.0	6.4	5.6	0.05	0.00	-3.99	-8.3	-1.9	
1,119.0	0.70	28.70	1,118.8	7.8	6.3	0.01	0.00	-1.16	-9.8	-2.1	
1,210.0	0.70	8.20	1,209.9	8.8	6.6	0.25	0.00	-20.33	-9.7	-5.3	
1,303.0	0.50	355.80	1,302.9	9.8	6.7	0.26	-0.22	-13.33	-9.3	-7.4	
1,395.0	0.60	354.80	1,394.9	10.7	6.6	0.11	0.11	-1.09	-10.1	-7.6	
1,487.0	0.60	4.10	1,486.9	11.7	6.6	0.11	0.00	10.11	-12.1	-5.8	
1,581.0	0.70	340.10	1,580.9	12.7	6.5	0.31	0.11	-25.53	-9.7	-10.4	
1,676.0	0.70	332.70	1,675.9	13.7	6.0	0.10	0.00	-7.79	-9.5	-11.6	
1,769.0	1.10	320.10	1,768.9	14.9	5.2	0.48	0.43	-13.55	-8.1	-13.5	
1,863.0	1.10	299.30	1,862.9	16.1	3.8	0.42	0.00	-22.13	-4.6	-15.9	
1,956.0	1.40	289.30	1,955.9	17.1	2.0	0.32	0.32	0.00	-6.6	-15.9	
2,050.0	1.30	291.10	2,049.8	18.0	0.0	0.23	-0.11	-8.72	-6.5	-16.8	
2,143.0	1.40	291.30	2,142.8	18.8	-2.0	0.11	0.11	0.22	-8.7	-16.8	
2,237.0	1.20	288.00	2,236.8	19.5	-4.0	0.23	-0.21	-3.51	-9.9	-17.3	
2,331.0	1.30	286.70	2,330.8	20.1	-8.0	0.11	0.11	-1.38	-11.5	-17.6	
2,425.0	1.70	358.10	2,424.7	21.8	-7.0	1.89	0.43	75.96	-22.1	6.3	
2,519.0	3.50	16.90	2,518.8	26.0	-6.3	2.09	1.91	20.00	-22.0	13.8	
2,612.0	5.30	24.80	2,611.4	32.6	-3.6	2.04	1.94	8.49	-22.9	17.6	
2,706.0	6.90	30.30	2,704.8	41.4	1.0	1.81	1.70	5.85	-23.9	20.3	
2,800.0	6.60	30.50	2,798.2	50.9	6.6	0.32	-0.32	0.21	-25.3	20.6	



Midland PVA

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Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3333.0usft
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3333.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Ad (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
2,893.0	7.10	30.50	2,890.5	60.5	12.3	0.54	0.54	0.00	-26.6	20.8
2,887.0	7.70	35.30	2,883.7	70.6	18.8	0.92	0.64	5.11	-27.1	22.9
3,080.0	8.00	38.20	3,075.9	80.8	26.5	0.53	0.32	3.12	-29.0	23.4
3,175.0	7.80	40.00	3,170.0	90.9	34.7	0.33	-0.21	1.89	-31.5	23.1
3,270.0	7.30	39.70	3,264.1	100.5	42.7	0.53	-0.53	-0.32	-34.3	21.5
3,363.0	6.40	37.10	3,358.5	109.2	49.6	1.02	-0.97	-2.80	-36.6	18.8
3,457.0	6.20	40.90	3,449.9	117.2	56.1	0.49	-0.21	4.04	-35.9	19.9
3,551.0	6.30	48.00	3,543.3	124.5	63.2	0.83	0.11	7.55	-33.9	22.1
3,645.0	6.50	57.10	3,638.8	130.8	71.5	1.10	0.21	9.68	-31.6	23.7
3,739.0	7.30	60.20	3,730.1	136.7	81.2	0.94	0.85	3.30	-32.9	21.0
3,832.0	5.90	59.10	3,822.5	142.1	90.4	1.51	-1.51	-1.18	-35.3	15.8
3,927.0	5.80	53.80	3,917.0	147.4	98.5	0.56	-0.11	-5.58	-37.1	8.3
4,020.0	4.90	49.00	4,009.6	152.8	105.3	1.08	-0.97	-5.16	-37.0	1.9
4,114.0	5.00	34.80	4,103.2	158.8	110.8	1.30	0.11	-15.11	-34.5	-8.7
4,209.0	5.00	29.50	4,197.9	165.8	115.0	0.49	0.00	-5.58	-31.9	-11.8
4,303.0	4.70	31.10	4,291.5	172.7	119.0	0.35	-0.32	1.70	-30.3	-10.7
4,397.0	4.70	45.60	4,385.2	178.7	123.8	1.26	0.00	15.43	-30.1	-4.2
4,491.0	4.30	49.60	4,478.9	183.7	129.2	0.54	-0.43	4.28	-28.3	-4.8
4,679.0	5.30	46.80	4,666.3	194.2	140.9	0.55	0.53	-1.49	-24.8	-11.6
4,773.0	5.70	57.30	4,759.8	199.7	148.0	1.15	0.43	11.17	-26.5	-10.4
4,960.0	4.80	16.50	4,946.1	212.2	158.0	2.01	-0.46	-21.82	-9.3	-26.1
5,053.0	4.70	8.20	5,038.8	219.7	159.7	0.75	-0.11	-8.92	-4.2	-23.8
5,147.0	4.80	4.90	5,132.5	227.4	160.6	0.31	0.11	-3.51	-1.8	-19.8
5,240.0	5.50	2.70	5,225.1	235.7	161.1	0.78	0.75	-2.37	-0.9	-15.3
5,334.0	5.60	2.10	5,318.6	244.8	161.5	0.12	0.11	-0.64	-1.3	-10.5
5,427.0	5.60	0.60	5,411.2	253.9	161.7	0.16	0.00	-1.61	-1.8	-5.6
5,521.0	5.70	359.30	5,504.7	263.2	161.7	0.17	0.11	-1.38	-2.6	-0.5



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Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Ad (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,616.0	5.80	359.80	5,599.3	272.7	161.6	0.11	0.11	0.32	-3.7	4.8	
5,710.0	5.40	6.10	5,692.8	281.8	162.0	0.80	-0.43	6.91	-3.4	10.0	
5,802.0	5.70	15.30	5,784.4	290.5	163.7	1.02	0.33	10.00	-1.4	13.8	
5,895.0	5.40	22.10	5,876.9	299.0	166.6	0.76	-0.32	7.31	0.9	16.1	
5,989.0	5.30	27.50	5,970.5	307.0	170.2	0.55	-0.11	5.74	3.4	17.1	
6,083.0	5.50	28.30	6,064.1	314.8	174.4	0.23	0.21	0.85	4.6	17.7	
6,176.0	5.30	27.00	6,156.7	322.6	176.4	0.25	-0.22	-1.40	5.2	18.5	
6,270.0	4.40	29.20	6,250.4	329.6	182.2	0.98	-0.96	2.34	7.8	18.9	
6,364.0	2.60	44.70	6,344.2	334.2	185.4	2.15	-1.91	16.49	15.2	15.2	
6,457.0	2.80	44.20	6,437.1	337.4	188.5	0.22	0.22	-0.54	15.9	14.1	
6,646.0	2.90	36.80	6,625.9	344.5	194.6	0.20	0.05	-3.92	7.0	15.2	
6,741.0	2.80	30.90	6,720.7	348.4	197.2	0.33	-0.11	-6.21	0.7	15.6	
6,835.0	2.30	35.20	6,814.6	351.9	199.5	0.57	-0.53	4.57	-2.3	15.7	
6,929.0	1.40	40.10	6,908.6	354.3	201.3	0.87	-0.96	5.21	-4.0	16.0	
7,021.0	1.00	50.50	7,000.6	355.7	202.7	0.49	-0.43	11.30	-2.9	16.7	
7,116.0	0.70	57.80	7,095.6	356.6	203.8	0.34	-0.32	7.66	-2.2	17.0	
7,210.0	0.70	66.50	7,189.6	357.1	204.8	0.11	0.00	9.26	-0.7	17.2	
7,303.0	0.90	144.30	7,282.6	356.7	205.7	1.09	0.22	63.66	15.8	4.9	
7,396.0	0.90	159.00	7,375.5	353.5	206.4	0.23	0.00	14.73	15.1	1.2	
7,490.0	0.90	181.30	7,469.5	354.0	206.7	0.39	0.00	24.79	12.9	-4.6	
7,584.0	0.90	187.60	7,563.5	352.6	206.6	0.11	0.00	6.91	10.9	-5.9	
7,677.0	1.00	191.40	7,656.5	351.0	206.3	0.13	0.11	3.87	8.9	-6.6	
7,772.0	1.10	101.90	7,751.5	350.0	207.1	1.58	0.11	-94.21	5.7	8.0	
7,866.0	1.20	204.70	7,845.5	349.0	207.5	1.91	0.11	109.36	5.8	-6.5	
7,960.0	1.10	213.70	7,939.5	347.3	206.6	0.22	-0.11	9.57	2.8	-7.2	
8,053.0	1.50	206.00	8,032.4	345.5	205.6	0.47	0.43	-8.28	1.7	-6.8	
8,145.0	1.70	209.40	8,124.4	343.2	204.4	0.24	0.22	3.70	-1.3	-6.8	



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Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Designer:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
8,240.0	1.80	213.80	8,219.4	340.7	202.8	0.26	0.21	4.83	-4.8	-8.6	
8,333.0	1.80	214.00	8,312.3	338.1	201.1	0.01	0.00	0.22	-7.9	-8.6	
8,427.0	1.80	204.00	8,406.3	335.5	199.6	0.36	-0.11	-10.64	-9.7	-8.1	
8,521.0	2.20	211.80	8,500.2	332.6	198.1	0.51	0.43	8.30	-14.0	-8.6	
8,614.0	2.50	210.90	8,593.1	329.3	196.1	0.33	0.32	-0.97	-17.7	-8.8	
8,709.0	2.60	205.10	8,688.0	325.6	194.1	0.29	0.11	-6.11	-21.1	-8.8	
8,802.0	2.30	211.80	8,780.9	322.1	192.2	0.45	-0.32	7.20	-25.9	-6.0	
8,895.0	2.30	209.90	8,873.9	318.9	190.3	0.08	0.00	-2.04	-29.5	-6.9	
8,989.0	2.20	220.10	8,967.8	315.9	188.2	0.44	-0.11	10.85	-33.9	-1.2	
9,083.0	2.10	231.40	9,061.7	313.4	185.7	0.46	-0.11	12.02	-37.0	5.8	
9,177.0	2.10	232.10	9,155.7	311.3	183.0	0.03	0.00	0.74	-40.3	6.2	
9,271.0	2.00	234.80	9,249.6	309.3	180.3	0.15	-0.11	2.87	-43.3	8.2	
9,365.0	1.80	240.00	9,343.6	307.6	177.7	0.28	-0.21	5.53	-45.5	12.3	
9,460.0	1.50	245.20	9,438.5	306.3	175.3	0.35	-0.32	5.47	-47.0	16.5	
9,553.0	1.60	253.00	9,531.5	305.5	172.9	0.25	0.11	8.39	-46.8	22.9	
9,647.0	1.20	254.70	9,625.5	304.8	170.7	0.43	-0.43	1.81	-48.4	24.3	
9,741.0	1.40	241.60	9,719.4	304.0	168.8	0.38	0.21	-13.94	-54.7	12.5	
9,835.0	1.80	233.30	9,813.4	302.6	166.6	0.49	0.43	-6.83	-58.6	4.3	
9,929.0	1.60	325.80	9,907.4	302.8	164.6	2.62	-0.21	98.40	5.6	59.8	
10,022.0	2.10	338.40	10,000.3	305.4	163.3	0.69	0.54	13.55	15.5	57.5	
10,116.0	1.10	305.60	10,094.3	307.6	161.9	1.40	-1.06	-34.89	-20.4	55.8	
10,210.0	1.20	289.20	10,188.3	308.6	160.3	0.17	0.11	-6.81	-28.4	53.0	
10,303.0	1.90	7.70	10,281.2	310.6	159.7	1.98	0.75	73.66	37.0	46.8	
10,397.0	3.40	25.30	10,375.1	314.8	161.1	1.80	1.60	18.72	45.1	33.9	
10,491.0	3.40	27.30	10,469.0	319.6	163.6	0.13	0.00	2.13	40.7	32.4	
10,585.0	3.40	32.60	10,562.8	324.5	166.3	0.33	0.00	5.64	38.0	28.8	
10,678.0	3.30	35.10	10,655.6	329.0	169.4	0.19	-0.11	2.69	33.8	27.2	



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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Survey											
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10,773.0	3.30	33.90	10,750.5	333.5	172.5	0.07	0.00	-1.26	27.7	27.8	
10,866.0	2.20	70.90	10,843.4	338.3	175.6	2.19	-1.18	39.78	35.0	7.1	
10,860.0	2.00	71.10	10,937.3	337.4	178.9	0.21	-0.21	0.21	31.5	7.0	
11,055.0	1.70	80.90	11,032.3	338.2	181.9	0.46	-0.32	10.32	29.2	1.8	
11,148.0	1.40	87.80	11,125.2	338.2	184.3	0.58	-0.32	17.96	28.1	-8.3	
11,243.0	1.30	80.30	11,220.2	338.3	186.6	0.44	-0.11	-18.21	24.6	1.4	
11,337.0	0.80	87.70	11,314.2	338.5	188.1	0.75	-0.74	7.87	23.0	-1.8	
11,419.0	0.40	89.70	11,396.2	338.6	188.8	0.31	-0.24	-21.95	21.7	5.4	
11,489.0	0.20	201.30	11,486.2	338.6	189.0	0.79	-0.29	188.00	-10.3	-19.6	
11,583.0	0.70	220.70	11,560.2	338.0	188.5	0.55	0.53	20.64	-16.9	-15.0	
11,677.0	1.10	229.80	11,654.2	336.9	187.5	0.45	0.43	9.47	-20.5	-12.2	
11,771.0	1.50	266.80	11,748.2	336.3	185.6	0.97	0.43	39.57	-25.7	3.3	
11,865.0	1.80	275.30	11,842.1	336.4	182.9	0.41	0.32	9.04	-27.6	7.2	
11,959.0	8.50	200.30	11,835.7	330.0	179.0	8.74	7.13	-79.79	-15.3	-28.6	
12,054.0	17.10	197.20	12,028.3	310.0	172.4	9.08	9.05	-3.28	-10.5	-37.4	
12,148.0	28.50	198.80	12,114.8	275.5	181.1	12.14	12.13	1.70	-6.5	-50.8	
12,242.0	39.50	193.90	12,192.6	225.0	148.6	12.05	11.70	-5.21	3.1	-67.1	
12,335.0	50.80	185.50	12,258.2	160.2	136.0	13.71	12.15	-9.03	16.4	-77.7	
12,379.0	63.10	182.80	12,282.1	123.5	133.4	28.42	27.95	-6.14	18.6	-79.8	
12,429.0	74.20	180.20	12,300.3	77.0	132.2	22.72	22.20	-5.20	13.9	-80.9	
12,524.0	83.30	176.60	12,318.6	-16.0	134.9	10.27	9.58	-3.79	0.0	-78.9	
12,618.0	83.80	175.50	12,329.3	-109.2	141.3	1.33	0.64	-1.17	-4.3	-73.3	
12,712.0	89.10	174.70	12,335.0	-202.7	149.3	5.60	5.53	-0.85	-0.3	-66.0	
12,806.0	88.10	174.20	12,337.3	-296.2	158.4	1.19	-1.06	-0.53	1.4	-57.6	
12,899.0	88.40	174.20	12,340.2	-388.7	167.8	0.32	0.32	0.00	3.6	-48.9	
12,993.0	88.00	173.20	12,343.1	-482.1	178.1	1.15	-0.43	-1.06	6.0	-39.3	
13,087.0	88.30	173.50	12,345.3	-575.4	189.0	1.42	1.38	0.32	7.4	-29.2	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Magnolia 15 Fed Com
 Well: #707H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #707H
 TVD Reference: KB = 25' @ 3333.0usft
 MD Reference: KB = 25' @ 3333.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D Leg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
13,180.0	89.50	173.00	12,348.3	-887.7	199.9	0.58	0.22	-0.54	7.8	-19.0
13,275.0	88.80	171.70	12,347.7	-781.9	212.6	1.55	-0.74	-1.37	8.5	-7.0
13,369.0	87.90	173.40	12,350.4	-855.0	224.7	2.05	-0.96	1.81	10.5	4.3
13,463.0	89.10	177.70	12,352.9	-948.7	232.0	4.75	1.28	4.57	12.3	10.9
13,557.0	92.00	181.30	12,352.0	-1,042.7	232.8	4.82	3.09	3.83	10.8	11.0
13,651.0	92.20	181.10	12,348.5	-1,138.6	230.9	0.30	0.21	-0.21	6.7	8.3
13,745.0	89.50	179.70	12,347.2	-1,230.6	230.2	3.24	-2.87	-1.49	4.7	6.9
13,839.0	89.00	179.50	12,348.4	-1,324.6	230.9	0.57	-0.53	-0.21	5.3	6.8
13,932.0	88.50	178.60	12,350.4	-1,417.5	232.4	1.11	-0.54	-0.97	6.6	7.6
14,025.0	87.50	178.40	12,353.7	-1,510.4	234.9	1.10	-1.08	-0.22	9.2	9.3
14,118.0	87.10	177.80	12,358.0	-1,603.3	237.9	0.77	-0.43	-0.65	13.0	11.7
14,212.0	89.50	179.90	12,360.8	-1,697.2	239.6	3.39	2.55	2.23	15.1	12.8
14,306.0	89.30	181.20	12,361.8	-1,791.2	238.9	1.40	-0.21	1.38	15.4	11.2
14,401.0	91.10	180.30	12,361.5	-1,886.2	237.7	2.12	1.89	-0.95	14.3	9.2
14,494.0	91.80	180.50	12,359.1	-1,979.1	237.0	0.78	0.75	0.22	11.2	7.8
14,588.0	88.90	178.90	12,358.6	-2,073.1	237.5	3.52	-3.09	-1.70	9.9	7.8
14,682.0	92.00	181.40	12,357.8	-2,167.1	237.3	4.24	3.30	2.66	8.4	6.6
14,776.0	88.20	178.60	12,357.6	-2,261.1	237.3	5.02	-4.04	-2.98	7.5	5.9
14,869.0	92.40	181.20	12,357.2	-2,354.0	237.4	5.31	4.52	2.80	6.3	5.3
14,963.0	92.80	181.40	12,352.9	-2,447.9	235.3	0.48	0.43	0.21	1.3	2.4
15,058.0	90.00	182.10	12,350.6	-2,542.8	232.4	3.04	-2.95	0.74	-1.8	-1.2
15,152.0	87.90	182.30	12,352.3	-2,638.8	228.8	2.24	-2.23	0.21	-0.9	-5.6
15,246.0	86.20	181.60	12,357.1	-2,730.6	225.8	1.98	-1.81	-0.74	3.2	-9.5
15,341.0	90.10	181.20	12,360.2	-2,825.5	223.3	4.13	4.11	-0.42	5.5	-12.6
15,435.0	91.10	181.20	12,359.2	-2,919.4	221.3	1.06	1.06	0.00	3.8	-15.3
15,529.0	91.90	181.30	12,356.8	-3,013.4	219.3	0.86	0.85	0.11	0.6	-18.1
15,623.0	89.40	181.50	12,355.7	-3,107.4	217.0	2.67	-2.66	0.21	-1.4	-21.1



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3333.0usft
Site:	Magnolia 15 Fed Corn	MD Reference:	KB = 25' @ 3333.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,717.0	88.30	180.90	12,357.6	-3,201.3	215.0	1.33	-1.17	-0.64	-0.5	-23.8	
15,811.0	88.40	180.60	12,360.3	-3,285.3	213.8	0.34	0.11	-0.32	1.3	-25.8	
15,905.0	88.70	180.90	12,362.7	-3,369.2	212.5	0.45	0.32	0.32	2.7	-27.7	
15,999.0	92.00	180.20	12,362.1	-3,483.2	211.6	3.59	3.51	-0.74	1.2	-29.4	
16,094.0	90.60	179.70	12,359.8	-3,578.2	211.7	1.37	-1.26	-0.53	-2.1	-30.0	
16,188.0	89.80	179.10	12,359.3	-3,672.2	212.7	1.24	-1.06	-0.64	-3.5	-29.8	
16,281.0	89.90	178.50	12,359.5	-3,765.1	214.7	0.65	0.11	-0.65	-4.2	-28.6	
16,375.0	91.30	178.90	12,358.5	-3,859.1	216.8	1.55	1.49	0.43	-6.1	-27.2	
16,469.0	87.50	179.60	12,359.5	-3,953.1	218.0	4.11	-4.04	0.74	-6.1	-26.7	
16,563.0	86.50	179.20	12,364.4	-4,046.9	219.0	1.15	-1.06	-0.43	-2.2	-26.4	
16,658.0	89.60	177.80	12,367.7	-4,141.8	221.5	3.58	3.26	-1.47	0.0	-24.7	
16,751.0	89.70	177.00	12,368.2	-4,234.7	225.7	0.87	0.11	-0.86	-0.6	-21.2	
16,846.0	88.90	177.00	12,369.4	-4,329.6	230.7	0.84	-0.84	0.00	-0.5	-17.0	
16,940.0	89.40	176.70	12,370.8	-4,423.5	235.8	0.62	0.53	-0.32	-0.2	-12.5	
17,035.0	90.70	177.30	12,370.7	-4,518.3	240.8	1.51	1.37	0.63	-1.4	-8.3	
17,130.0	88.10	175.90	12,371.7	-4,613.1	246.4	3.11	-2.74	-1.47	-1.5	-3.4	
17,223.0	88.50	176.60	12,374.5	-4,708.0	250.9	2.93	0.43	2.90	0.2	0.3	
17,318.0	87.00	177.80	12,378.2	-4,800.9	253.8	1.74	-1.58	-0.74	2.8	2.4	
17,368.0	90.20	178.70	12,379.4	-4,850.8	255.3	6.60	6.40	1.60	3.4	3.5	
17,412.0	89.50	178.70	12,379.5	-4,894.8	256.3	1.59	-1.59	0.00	3.0	4.2	
17,506.0	90.30	177.60	12,378.7	-4,988.8	259.2	1.28	0.85	-0.96	2.1	6.3	
17,601.0	91.80	177.90	12,378.0	-5,083.7	262.7	1.58	1.58	0.11	-0.8	9.1	
17,696.0	92.80	176.60	12,374.1	-5,178.6	265.6	1.28	1.05	0.74	-5.7	11.3	
17,789.0	93.30	178.70	12,369.2	-5,271.4	267.6	0.55	0.54	0.11	-11.7	12.8	
17,883.0	91.00	179.00	12,365.7	-5,365.3	269.7	2.47	-2.45	0.32	-16.3	13.9	
17,977.0	90.90	178.90	12,364.1	-5,459.3	271.4	0.15	-0.11	-0.11	-19.0	14.9	
18,071.0	91.60	179.50	12,362.1	-5,553.2	272.7	0.98	0.74	0.64	-22.1	15.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3333.0usft
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3333.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,164.0	90.90	179.50	12,360.0	-5,646.2	273.5	0.75	-0.75	0.00	-25.2	15.5	
18,258.0	89.40	181.00	12,359.8	-5,740.2	273.1	2.28	-1.80	1.60	-28.6	14.4	
18,352.0	88.60	179.70	12,361.4	-5,834.2	272.5	1.62	-0.85	-1.38	-26.1	13.1	
18,446.0	90.10	180.00	12,362.5	-5,928.2	272.8	1.63	1.60	0.32	-26.1	12.6	
18,540.0	89.70	179.20	12,362.7	-6,022.2	273.5	0.95	-0.43	-0.85	-27.0	12.5	
18,634.0	89.80	177.30	12,363.1	-6,116.1	276.3	2.02	0.11	-2.02	-27.7	14.6	
18,727.0	89.10	176.50	12,364.0	-6,209.0	281.4	1.14	-0.75	-0.88	-27.9	18.9	
18,822.0	89.30	179.90	12,365.3	-6,303.9	284.3	3.58	0.21	3.58	-27.7	21.1	
18,916.0	89.00	180.10	12,366.7	-6,397.9	284.3	0.38	-0.32	0.21	-27.4	20.4	
19,010.0	90.90	181.60	12,366.8	-6,491.9	282.9	2.58	2.02	1.60	-28.4	18.3	
19,103.0	90.20	182.10	12,365.9	-6,584.8	279.9	0.92	-0.75	0.54	-30.4	14.5	
19,197.0	87.90	182.50	12,367.4	-6,678.7	276.2	2.48	-2.45	0.43	-29.9	10.0	
19,291.0	89.10	183.40	12,369.9	-6,772.8	271.3	1.60	1.28	0.96	-28.5	4.5	
19,384.0	89.50	182.70	12,371.0	-6,865.4	266.4	0.87	0.43	-0.75	-28.5	-1.2	
19,477.0	90.90	183.30	12,370.7	-6,958.3	261.5	1.64	1.51	0.65	-29.9	-6.8	
19,571.0	90.90	183.20	12,369.2	-7,052.1	256.2	0.11	0.00	-0.11	-32.5	-12.9	
19,665.0	86.40	182.80	12,371.4	-7,146.0	251.3	4.81	-4.79	-0.43	-31.4	-18.5	
19,759.0	89.90	181.80	12,374.5	-7,239.8	247.5	3.87	3.72	-1.06	-29.4	-23.1	
19,840.0	91.60	181.20	12,373.4	-7,320.8	245.4	2.23	2.10	-0.74	-31.4	-25.8	
19,905.0	91.60	181.20	12,371.6	-7,385.8	244.0	0.00	0.00	0.00	-34.0	-27.7	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3333.0usft
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3333.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+NLS (usft)	+E/W (usft)	
11,877.0	11,854.1	336.3	162.5	KOP, MD:11877.0', TVD:11854.1', N/S:336.3', E/W:162.5', INC:2.13
12,111.0	12,081.6	291.0	166.3	FTP Crossing, MD:12111.0', TVD:12081.6', N/S:291.0', E/W:166.3', INC:24.01
19,840.0	12,373.4	-7,320.8	245.4	Last MWD Survey (MD=19840.0')
19,905.0	12,371.6	-7,385.8	244.0	Projection to Bit (MD=19905.0')

Checked By: _____	Approved By: _____	Date: _____
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PROJECT DETAILS: Lea County, NM (NAD 83 NME)

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

Lea County, NM (NAD 83 NME)

Magnolia 15 Fed Com

#707H

Plan #1

WELL DETAILS: #707H

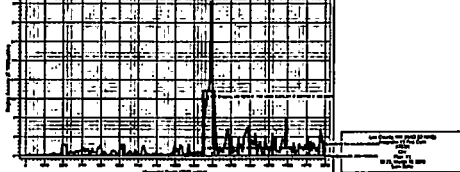
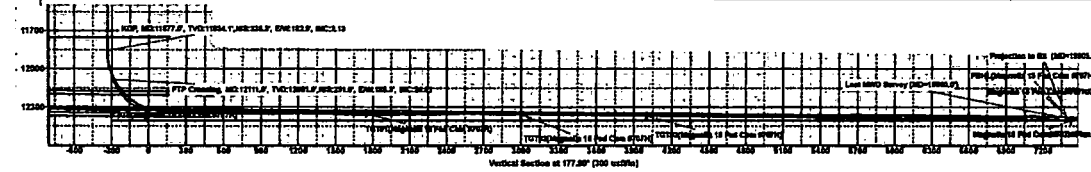
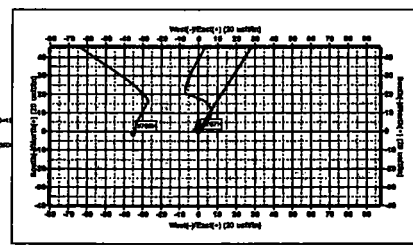
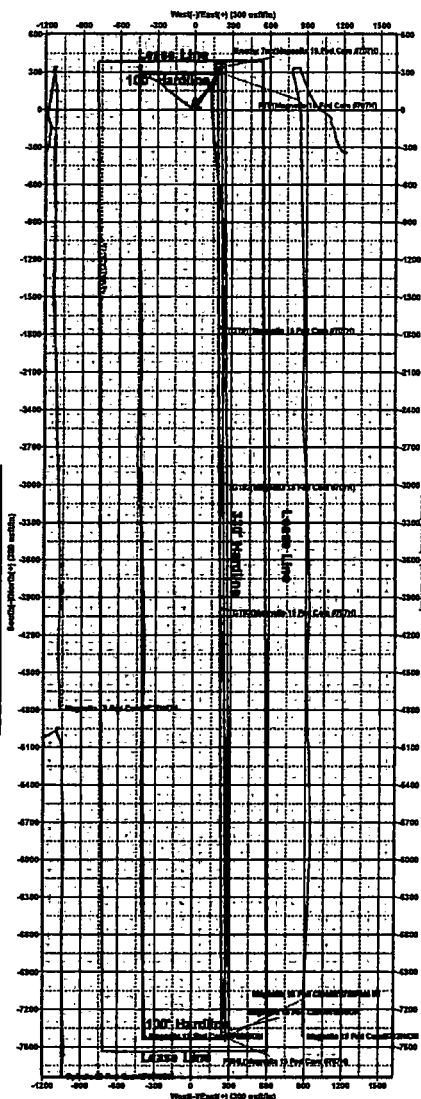
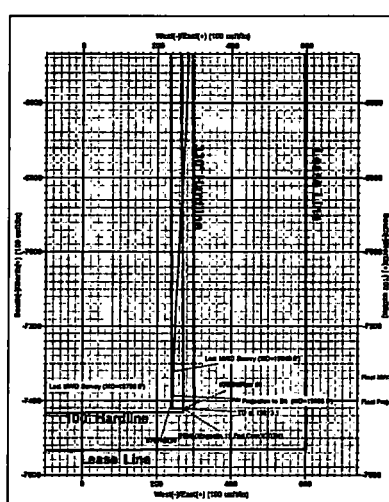
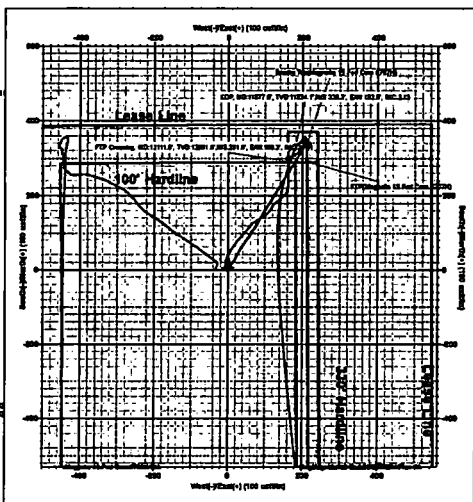
+N-S +E-W Northing Easting
0.0 0.0 342958.00 781654.00
KS = 25' @ 3333.00ft
22' 2" 58.780 N 103' 33" 27.652 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2440.0	0.00	0.00	2440.0	0.0	0.0	0.00	0.00	0.0	
2740.0	0.00	31.75	2739.5	13.3	8.3	2.00	31.75	-13.0	
6275.4	0.00	31.75	6255.5	327.7	202.7	0.00	0.00	-320.0	
6575.5	0.00	0.00	6555.0	341.0	211.0	2.00	180.00	-333.0	
11878.0	0.00	0.00	11857.5	341.0	211.0	0.00	0.00	-333.0	
12624.7	89.61	179.55	12335.0	-133.2	214.7	12.00	179.55	140.9	TGT#1(Magnolia 15 Fed Com #707H)
14234.4	89.61	179.55	12346.0	-1742.8	227.4	0.00	0.00	1750.0	
14237.7	89.54	179.55	12346.0	-1746.1	227.4	2.00	180.00	1753.2	TGT#2(Magnolia 15 Fed Com #707H)
15485.0	89.54	179.55	12356.0	-2993.3	237.2	0.00	0.00	3000.0	TGT#3(Magnolia 15 Fed Com #707H)
15490.7	89.43	179.55	12356.1	-2999.0	237.2	2.00	179.38	3005.7	
16485.5	89.43	179.55	12366.0	-3993.7	245.0	0.00	0.00	4000.0	
16490.3	89.33	179.55	12366.1	-3998.5	245.0	2.00	-178.25	4004.8	
18913.1	89.33	179.55	12406.0	-7421.0	272.0	0.00	0.00	7426.0	PBHL(Magnolia 15 Fed Com #707H)

WELLSBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting	Shape
Brushy Top(Magnolia 15 Fed Com #707H)	7738.0	341.0	211.0	352308.00	781825.00	Polygon
FTP(Magnolia 15 Fed Com #707H)	12334.0	291.0	211.0	352328.00	781825.00	Point
TGT#1(Magnolia 15 Fed Com #707H)	12546.0	-1742.8	227.4	350228.00	781821.38	Point
TGT#2(Magnolia 15 Fed Com #707H)	12556.0	-2993.3	237.2	378674.70	781821.17	Point
TGT#3(Magnolia 15 Fed Com #707H)	12588.0	-3993.7	245.0	378874.30	781825.00	Point
PBHL(Magnolia 15 Fed Com #707H)	12406.0	-7421.0	272.0	378247.00	781826.00	Rectangle (Sides: L&O W&O)



Bureau of Land Management

Hobbs Field Office

414 W. Taylor

Hobbs, New Mexico

505.393.3612

WATER PRODUCTION & DISPOSAL INFORMATION

Wells: MAGNOLIA 15 FEDERAL COM # 706H 30-025-44399
MAGNOLIA 15 FEDERAL COM # 707H 30-025-44400
MAGNOLIA 15 FEDERAL COM # 713H 30-025-44405
MAGNOLIA 15 FEDERAL COM # 714H 30-025-44406
Sec 15, T26S, R33E
Lea County, NM

1. Name of formations producing water on lease: WOLFCAMP
2. Amount of water produced from all formations in barrels per day 6000 - 8000 BWPD
3. How water is stored on lease Tanks 2 -400 bbl tanks
4. How water is moved to disposal facility Pipeline/Trucked
5. Disposal Facility:
 - a. Facility Operators name EOG RESOURCES, INC
 - b. Name of facility or well name & number
ENDURANCE 25 FEDERAL #2 SWD
30-025-41067
E - 25 - T26S - R33E
SWD - 1424-0
High percentage of water goes to EOG Water
gathering system to be recycled