

HOBBS OCD

JUN 13 2019

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed

#711H

OH

Design: OH

Midland PVA

02 March, 2019

Company: EOG Resources - Midland Project: Lees County, NM (NAD 83 NME) Site: Caballo 23 Fed Well: #711H Wellbore: OH Design: OH		Local Co-ordinate Reference: Well #711H TVD Reference: KB = 25 @ 3370.0ush MD Reference: KB = 25 @ 3370.0ush North Reference: Gld Survey Calculation Method: Minimum Curvature Database: EDM 5000.14	
Map System: US State Plane 1983 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone		Project: Lees County, NM (NAD 83 NME) System Datum: Mean Sea Level	
Site Position: Map Northing: 404,499.00 ush Easting: 785,117.00 ush Site Radius: 15.3/16 "		From: 0.0 ush Grid Convergence: 0.42 "	
Well Position: +NLS Northing: 404,516.00 ush Easting: 788,038.00 ush Wellhead Elevation: ush		Well: #711H Position Uncertainty: 3.345.0 ush	
Wellbore: OH		Magnetics:	
Model Name: IGRF2015 Sample Date: 2/17/2019 Declination: 6.75 Dip Angle: 59.94 Field Strength: 47,702.73448086 (nT)		Design: OH	
Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0		Vertical Section:	
Depth From (TVD): +NLS Direction: +ELW Direction: 1.66		Survey Program	
From (ush): 184.0 To (ush): 20,014.0 Newaco MWD (OH) Survey (Wellbore): MWD Tool Name: OWSG MWD - Standard Description:		Date: 3/2/2019	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #711H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Cabello 23 Fed	MD Reference:	KB = 25 @ 3370.0usft
Well:	#711H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/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	0.00	0.0	0.0
184.0	1.20	357.70	184.0	2.0	-0.1	0.82	0.82	0.00	0.0	0.0	0.0
310.0	1.80	3.50	310.0	4.8	0.0	0.37	0.34	5.00	0.0	0.0	0.0
486.0	1.40	22.40	485.9	9.3	0.9	0.30	-0.11	10.74	0.0	0.0	0.0
672.0	1.40	87.20	671.8	11.5	4.1	0.81	0.00	34.84	0.0	0.0	0.0
858.0	0.70	170.60	858.8	10.5	6.5	0.80	-0.37	44.60	0.0	0.0	0.0
1,047.0	0.80	171.80	1,046.8	8.1	6.9	0.05	0.05	0.84	0.0	0.0	0.0
1,208.0	1.00	173.30	1,205.8	5.6	7.2	0.13	0.13	0.84	0.0	0.0	0.0
1,328.0	1.10	160.30	1,325.8	3.5	7.7	0.21	0.08	-10.83	-0.1	0.2	0.2
1,517.0	1.10	146.90	1,516.7	0.2	8.4	0.13	0.00	-7.02	-2.8	0.4	0.4
1,704.0	1.60	145.30	1,703.7	-3.4	11.8	0.27	0.27	-0.86	-7.0	0.3	0.3
1,892.0	1.70	155.00	1,891.8	-8.1	14.5	0.16	0.05	5.16	-12.2	1.9	1.9
2,079.0	1.50	145.00	2,078.5	-12.7	17.1	0.18	-0.11	-5.35	-17.5	-0.8	-0.8
2,266.0	1.90	146.80	2,265.4	-17.2	20.2	0.22	0.21	0.86	-23.1	-0.2	-0.2
2,453.0	1.70	141.30	2,452.4	-22.0	23.6	0.14	-0.11	-2.83	-28.8	-2.6	-2.6
2,641.0	1.90	125.20	2,640.3	-26.0	27.9	0.29	0.11	-8.56	-30.3	-11.0	-11.0
2,829.0	5.10	119.90	2,827.9	-31.9	37.7	1.71	1.70	-2.82	-26.7	-10.8	-10.8
3,016.0	8.50	121.20	3,013.9	-41.6	54.0	0.75	0.75	0.70	-25.9	-5.9	-5.9
3,205.0	7.50	136.20	3,201.5	-56.0	71.7	1.10	0.53	7.94	-28.8	2.5	2.5
3,392.0	8.20	136.30	3,386.5	-75.6	80.4	0.91	0.91	0.05	-35.5	1.3	1.3
3,580.0	9.30	129.20	3,572.1	-96.1	112.6	0.61	0.05	-3.78	-45.1	-3.6	-3.6
3,767.0	8.50	131.80	3,756.9	-114.9	134.6	0.48	-0.43	1.39	-53.8	-0.6	-0.6
3,954.0	6.00	129.60	3,942.3	-130.3	152.4	1.34	-1.34	-1.18	-57.0	-2.0	-2.0
4,141.0	5.50	139.10	4,128.4	-143.3	165.8	0.57	-0.27	5.08	-54.8	6.7	6.7
4,329.0	5.50	139.10	4,315.5	-156.9	177.6	0.00	0.00	0.00	-52.4	4.5	4.5
4,518.0	7.20	131.50	4,503.4	-171.6	182.4	1.00	0.90	-4.02	-52.8	-3.2	-3.2
4,706.0	6.20	139.70	4,690.1	-187.2	207.8	0.73	-0.53	4.36	-54.2	3.5	3.5



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 Well: #711H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #711H
 TVD Reference: KB = 25 @ 3370.0ush
 MD Reference: KB = 25 @ 3370.0ush
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	DLeg (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
4,893.0	5.50	132.50	4,876.1	-200.9	221.0	0.54	-0.37	-3.85	-52.7	-4.4	
5,081.0	2.90	127.10	5,063.6	-209.9	231.4	1.40	-1.38	-2.87	-45.4	-8.2	
5,269.0	4.30	139.30	5,251.2	-218.1	239.8	0.84	0.74	6.49	-37.4	0.2	
5,456.0	5.80	135.40	5,437.5	-230.1	251.0	0.82	0.80	-2.09	-33.3	-3.7	
5,644.0	6.00	131.80	5,624.5	-243.4	265.0	0.23	0.11	-2.02	-31.8	-8.1	
5,831.0	4.80	115.20	5,810.7	-253.3	279.6	1.01	-0.59	-8.77	-26.7	-11.4	
6,018.0	2.80	105.90	5,997.2	-258.0	291.2	1.17	-1.12	-4.97	-21.1	-8.8	
6,205.0	2.20	101.70	6,184.1	-259.9	299.1	0.34	-0.32	-2.25	-23.1	-7.4	
6,393.0	1.80	99.00	6,371.9	-261.1	305.5	0.22	-0.21	-1.44	-29.3	-8.7	
6,581.0	1.80	91.00	6,559.8	-261.7	311.4	0.13	0.00	-4.26	-33.6	-13.1	
6,768.0	1.80	111.70	6,746.8	-262.8	317.2	0.36	0.05	11.07	-41.9	0.7	
6,956.0	1.80	117.30	6,934.7	-265.4	322.7	0.11	-0.05	2.98	-47.7	5.1	
7,144.0	1.70	123.70	7,122.6	-266.3	327.7	0.12	-0.05	3.40	-52.6	10.7	
7,333.0	1.50	108.10	7,311.5	-270.8	332.4	0.25	-0.11	-8.25	-58.7	-4.8	
7,521.0	0.80	3.00	7,499.5	-270.4	334.8	0.93	-0.48	-55.90	19.4	-57.9	
7,707.0	1.00	320.00	7,685.5	-268.1	333.8	0.37	0.22	-23.12	51.3	-29.8	
7,895.0	0.70	279.10	7,873.4	-266.7	331.6	0.35	-0.16	-21.76	55.9	10.0	
8,083.0	1.00	276.90	8,061.4	-266.3	328.8	0.16	0.16	-1.17	52.7	12.1	
8,271.0	0.80	250.10	8,249.4	-266.6	326.0	0.24	-0.11	-14.26	36.8	33.8	
8,458.0	0.80	289.50	8,436.4	-266.6	323.5	0.29	0.00	21.07	49.1	2.3	
8,647.0	0.70	246.90	8,625.4	-266.6	321.2	0.29	-0.05	-22.54	32.4	34.1	
8,834.0	0.70	208.20	8,812.3	-268.1	319.6	0.25	0.00	-20.70	2.0	46.1	
9,022.0	1.30	263.70	9,000.3	-269.3	316.9	0.57	0.32	29.52	36.4	25.5	
9,210.0	1.30	271.90	9,188.3	-269.5	312.7	0.10	0.00	4.36	35.4	20.3	
9,397.0	1.10	273.20	9,375.2	-269.3	308.8	0.11	-0.11	0.70	31.9	19.5	
9,585.0	1.40	316.70	9,563.2	-267.5	305.4	0.51	0.16	23.14	33.0	-6.6	
9,773.0	0.50	56.10	9,751.2	-265.4	304.5	0.83	-0.48	52.87	-12.3	-29.2	



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Well:	#711H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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9,958.0	3.30	190.90	9,938.1	-270.2	304.2	1.98	1.51	72.86	-16.8	29.9	
10,143.0	1.20	136.80	10,122.9	-276.9	304.5	1.48	-1.12	-28.93	-39.2	-0.5	
10,333.0	1.60	312.00	10,310.9	-276.6	303.9	1.49	0.21	93.19	38.4	3.9	
10,520.0	1.80	262.70	10,497.8	-275.2	299.0	0.76	0.11	-26.36	17.4	29.6	
10,708.0	1.10	263.10	10,685.8	-275.8	294.3	0.37	-0.37	0.21	12.9	29.5	
10,897.0	1.40	253.80	10,874.7	-276.6	290.3	0.19	0.16	-4.82	3.8	30.9	
11,084.0	1.40	277.80	11,061.7	-277.0	285.8	0.31	0.00	12.73	11.6	27.7	
11,272.0	1.60	321.50	11,249.6	-274.6	281.9	0.60	0.11	23.35	23.3	13.5	
11,459.0	3.10	292.10	11,438.5	-270.7	275.6	1.00	0.80	-15.72	6.3	21.9	
11,647.0	1.70	310.90	11,624.3	-266.9	268.8	0.84	-0.74	10.00	5.4	20.3	
11,743.0	1.80	293.60	11,720.3	-265.4	266.3	0.56	0.10	-18.02	-3.7	20.6	
11,868.0	1.80	257.90	11,845.2	-265.0	262.6	0.88	0.00	-28.56	-18.6	13.4	
11,981.0	1.50	223.90	11,938.2	-266.2	260.3	1.08	-0.32	-36.56	-25.4	-0.1	
12,055.0	11.40	6.00	12,031.6	-257.8	260.5	13.42	10.53	151.17	12.1	16.4	
12,149.0	24.40	4.90	12,120.9	-228.1	263.1	13.83	13.83	-1.17	-3.6	15.1	
12,243.0	35.30	0.90	12,202.3	-182.5	265.2	11.78	11.60	-4.26	-21.1	12.9	
12,337.0	43.30	4.90	12,275.0	-123.1	268.4	8.92	8.51	4.26	-33.6	11.2	
12,399.0	53.60	6.90	12,316.0	-77.0	273.2	16.79	16.61	3.23	-41.4	7.3	
12,431.0	57.40	7.70	12,334.2	-50.9	276.6	12.05	11.87	2.50	-46.1	4.2	
12,524.0	64.60	7.60	12,379.2	29.7	287.4	7.74	7.74	-0.11	-55.2	-7.8	
12,618.0	75.60	1.30	12,411.2	117.6	294.1	13.28	11.70	-6.70	-57.7	-18.4	
12,712.0	76.60	358.60	12,433.6	208.9	294.0	3.07	1.28	-2.87	-46.7	-19.6	
12,806.0	80.90	357.30	12,451.8	301.1	290.7	4.57	4.36	-1.38	-31.8	-17.1	
12,899.0	82.50	357.70	12,465.2	393.0	286.7	1.77	1.72	0.43	-18.0	-13.7	
12,993.0	87.80	2.10	12,473.2	486.6	286.5	7.32	5.64	4.68	-9.8	-14.2	
13,087.0	88.10	0.80	12,476.5	580.5	288.9	1.42	0.32	-1.36	-6.1	-17.3	
13,181.0	90.00	0.20	12,478.1	674.5	289.7	2.12	2.02	-0.64	-4.2	-18.8	



Midland PVA

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 TVD Reference: KB = 25 @ 3370.0usft
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 North Reference: Grid
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Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
13,275.0	88.60	359.00	12,478.2	768.5	289.0	1.98	-1.49	-1.28	-2.6	-18.9	
13,369.0	90.30	0.70	12,480.1	862.5	288.8	2.56	1.81	1.81	-1.4	-19.4	
13,462.0	87.70	355.70	12,481.8	955.4	285.9	6.06	-2.80	-5.38	0.7	-17.2	
13,556.0	90.20	355.20	12,483.5	1,049.1	278.4	2.71	2.66	-0.53	2.6	-10.5	
13,649.0	91.50	358.10	12,482.1	1,141.9	273.0	3.42	1.40	3.12	1.5	-5.7	
13,743.0	91.40	359.30	12,479.7	1,235.8	270.9	1.28	-0.11	1.28	-0.6	-4.3	
13,837.0	87.30	356.70	12,480.8	1,329.7	267.6	5.16	-4.36	-2.77	0.7	-1.8	
13,930.0	88.00	354.60	12,484.6	1,422.4	260.5	2.38	0.75	-2.26	4.8	4.6	
14,024.0	90.50	356.70	12,485.8	1,516.1	253.4	3.47	2.66	2.23	6.2	11.0	
14,118.0	90.60	1.20	12,484.9	1,610.0	251.7	4.79	0.11	4.79	5.6	12.0	
14,212.0	92.50	2.50	12,482.4	1,703.9	254.7	2.45	2.02	1.38	3.3	8.2	
14,306.0	92.30	1.20	12,478.5	1,797.8	257.8	1.40	-0.21	-1.38	-0.4	4.4	
14,399.0	90.20	1.20	12,476.4	1,890.8	259.7	2.26	-2.26	0.00	-2.2	1.8	
14,492.0	87.40	358.90	12,478.4	1,983.7	259.8	3.90	-3.01	-2.47	0.0	1.0	
14,586.0	94.20	0.60	12,477.1	2,077.7	259.4	7.46	7.23	1.81	-1.0	0.7	
14,680.0	90.70	358.80	12,473.0	2,171.6	258.9	4.19	-3.72	-1.91	-4.8	0.4	
14,774.0	88.40	359.20	12,473.8	2,265.5	257.2	2.48	-2.45	0.43	-3.8	1.3	
14,868.0	87.10	0.40	12,477.5	2,359.5	256.9	1.88	-1.38	1.28	0.1	0.9	
14,961.0	88.70	2.20	12,480.9	2,452.4	259.0	2.59	1.72	1.94	3.8	-1.9	
15,055.0	92.60	2.40	12,479.8	2,546.3	262.8	4.15	4.15	0.21	2.8	-6.4	
15,148.0	89.90	1.80	12,477.8	2,639.2	266.2	2.87	-2.90	-0.65	0.8	-10.5	
15,242.0	87.90	359.70	12,479.6	2,733.1	267.4	3.08	-2.13	-2.23	2.8	-12.5	
15,336.0	87.50	0.80	12,483.4	2,827.1	267.8	1.24	-0.43	1.17	6.4	-13.8	
15,431.0	93.20	357.90	12,482.7	2,921.0	266.5	5.56	4.96	-2.52	5.6	-13.2	
15,525.0	93.10	358.80	12,477.5	3,015.8	263.8	0.96	-0.11	0.96	0.5	-11.2	
15,619.0	90.80	1.30	12,474.3	3,109.7	263.9	3.61	-2.45	2.66	-2.7	-12.0	
15,712.0	89.60	0.00	12,474.0	3,202.7	265.0	1.80	-1.29	-1.39	-3.0	-13.8	



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15,826.0	89.00	359.80	12,475.1	3,316.7	264.8	0.87	-0.64	-0.22	-1.9	-14.4	
15,920.0	88.80	358.10	12,476.9	3,410.7	263.1	1.82	-0.21	-1.81	-0.1	-13.4	
16,013.0	89.40	357.80	12,478.4	3,503.6	259.8	0.72	0.85	-0.32	1.4	-10.8	
16,108.0	91.30	358.10	12,477.8	3,596.5	256.4	2.07	2.04	0.32	0.8	-6.2	
16,200.0	89.10	357.80	12,477.5	3,690.5	253.1	2.36	-2.34	-0.32	0.5	-5.5	
16,293.0	90.20	358.30	12,478.1	3,783.4	249.9	1.30	1.18	0.54	1.1	-3.1	
16,386.0	93.50	0.50	12,475.1	3,876.3	248.9	4.26	3.55	2.37	-1.9	-2.8	
16,479.0	89.20	359.60	12,472.9	3,969.3	249.0	4.72	-4.62	-0.97	-4.1	-3.8	
16,573.0	89.70	359.30	12,473.8	4,063.3	248.1	0.82	0.53	-0.32	-3.5	-3.4	
16,666.0	89.00	359.10	12,474.8	4,156.3	246.6	0.78	-0.75	-0.22	-2.8	-2.9	
16,759.0	88.60	359.60	12,476.8	4,249.2	245.8	0.69	-0.43	0.54	-1.2	-2.5	
16,853.0	87.00	359.70	12,480.4	4,343.2	245.2	1.71	-1.70	0.11	2.0	-2.7	
16,947.0	87.70	359.40	12,484.7	4,437.1	244.4	0.81	0.74	-0.32	6.0	-2.7	
17,040.0	90.30	359.50	12,486.3	4,530.0	243.6	2.80	2.80	0.11	7.2	-2.5	
17,134.0	87.20	359.70	12,488.4	4,624.0	242.9	3.30	-3.30	0.21	8.9	-2.6	
17,228.0	89.30	0.00	12,491.3	4,718.0	242.7	2.26	2.23	0.32	11.4	-3.0	
17,321.0	91.10	0.10	12,490.9	4,811.0	242.7	1.94	1.94	0.10	10.7	-3.8	
17,414.0	92.50	359.60	12,488.0	4,903.9	242.5	1.60	1.51	-0.54	7.4	-4.3	
17,508.0	92.10	359.80	12,484.2	4,997.8	242.1	0.53	-0.43	0.32	3.2	-4.6	
17,602.0	88.80	0.40	12,483.5	5,091.8	242.3	3.55	-3.51	0.53	2.1	-5.6	
17,696.0	89.00	0.40	12,485.3	5,185.8	243.0	0.21	0.21	0.00	3.6	-7.0	
17,790.0	91.10	0.70	12,485.2	5,279.8	243.9	2.26	2.23	0.32	3.1	-6.6	
17,884.0	90.40	359.70	12,484.0	5,373.8	244.2	1.30	-0.74	-1.06	1.5	-9.7	
17,977.0	90.10	359.50	12,483.6	5,468.8	243.6	0.39	-0.32	-0.22	0.7	-9.7	
18,071.0	88.50	358.70	12,484.7	5,560.7	242.1	1.90	-1.70	-0.85	1.4	-9.0	
18,165.0	89.20	358.90	12,486.6	5,654.7	240.1	0.77	0.74	0.21	2.7	-7.8	
18,259.0	89.80	358.60	12,487.5	5,748.7	238.1	0.71	0.64	-0.32	2.9	-6.4	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #711H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #711H
 TVD Reference: KB = 25 @ 3370.0usft
 MD Reference: KB = 25 @ 3370.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLag ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
18,353.0	89.60	358.80	12,488.0	5,842.7	235.9	0.38	-0.32	0.21	2.9	-5.0
18,447.0	92.90	0.40	12,486.1	5,936.6	235.3	4.00	3.62	1.70	0.4	-5.1
18,540.0	89.70	359.10	12,483.9	6,029.6	234.9	3.71	-3.44	-1.40	-2.3	-5.4
18,633.0	87.70	359.30	12,486.1	6,122.5	233.6	2.16	-2.15	0.22	-0.7	-4.8
18,727.0	88.40	359.70	12,489.3	6,216.5	232.6	0.86	0.74	0.43	1.9	-4.7
18,821.0	89.50	359.60	12,491.0	6,310.5	232.2	1.18	1.17	-0.11	3.1	-4.9
18,915.0	87.30	359.90	12,493.6	6,404.4	231.8	2.36	-2.34	0.32	5.1	-5.2
19,009.0	89.00	0.00	12,496.6	6,498.4	231.7	1.81	1.81	0.11	7.6	-5.8
19,103.0	89.40	0.00	12,497.9	6,592.4	231.7	0.43	0.43	0.00	9.2	-6.6
19,197.0	88.80	0.20	12,499.4	6,686.3	231.9	0.67	-0.64	0.21	11.1	-7.5
19,291.0	90.60	359.80	12,499.8	6,780.3	231.9	2.17	2.13	-0.43	11.8	-8.2
19,385.0	89.80	359.00	12,499.3	6,874.3	230.9	1.36	-1.06	-0.85	11.7	-7.9
19,478.0	90.60	359.80	12,498.9	6,967.3	229.9	1.22	0.86	0.86	11.7	-7.7
19,572.0	92.70	1.10	12,496.2	7,061.3	230.7	2.63	2.23	1.38	9.4	-9.1
19,665.0	91.30	359.80	12,493.0	7,154.2	231.4	2.05	-1.51	-1.40	6.5	-10.6
19,759.0	91.60	359.80	12,490.6	7,248.2	231.1	0.32	0.32	0.00	4.5	-11.0
19,852.0	92.00	359.00	12,487.7	7,341.1	230.1	0.96	0.43	-0.86	2.0	-10.7
19,946.0	92.10	359.30	12,484.3	7,435.1	228.7	0.34	0.11	0.32	-1.0	-10.1
20,014.0	92.10	359.30	12,481.8	7,503.0	227.9	0.00	0.00	0.00	-3.2	-9.8

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
11,975.0	11,952.2	-266.2	260.1	KOP, MD:11975.0', TVD:11952.2', N/S:-266.2', E/W:260.1', INC:1.05
12,215.0	12,179.0	-198.0	264.8	FTP Crossing, MD:12215.0', TVD:12179.0', N/S:-198.0', E/W:264.8', INC:32.04
19,946.0	12,484.3	7,435.1	228.7	Last MWD Survey (MD=19946.0')
20,014.0	12,481.8	7,503.0	227.9	Projection to Bit (MD=20014.0')



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #711H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3370.0usft
Well:	#711H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Caballo 23 Fed #711H

Plan #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: #711H

KB = 25 @ 3370.0usft 3348.0
Northing 404518.00 Easting 788038.00 Latitude 32° 6' 34.534 N Longitude 103° 32' 11.504 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSec	Target
1	1206.0	1.00	173.30	1205.8	5.6	7.2	0.00	0.00	5.8	
2	1354.0	1.00	173.30	1353.8	3.0	7.5	0.00	0.00	3.2	
3	1454.0	0.00	0.00	1453.8	2.2	7.6	1.00	180.00	2.4	
4	2520.2	0.00	0.00	2520.0	2.2	7.6	0.00	0.00	-8.4	
5	2833.5	6.26	132.78	2832.6	-8.5	20.2	2.00	132.78	-8.9	
6	5895.8	6.26	132.78	5876.4	-236.4	265.4	0.00	0.00	-228.0	
7	6208.8	0.00	0.00	6189.0	-248.0	278.0	2.00	180.00	-239.8	
8	12026.3	0.00	0.00	12006.5	-248.0	278.0	0.00	0.00	-239.8	
9	12778.1	90.22	359.56	12484.0	231.3	274.3	12.00	359.56	239.2	
10	13539.6	90.22	359.56	12481.0	992.6	268.4	0.00	0.00	1000.0	TGT#1 (Caballo 23 Fed Com #711H)
11	13543.0	90.15	359.58	12481.0	996.1	268.4	2.00	180.00	1003.5	
12	15040.5	90.15	359.58	12477.0	2493.6	256.8	0.00	0.00	2500.0	TGT#2 (Caballo 23 Fed Com #711H)
13	15048.1	90.00	359.58	12477.0	2501.2	256.8	2.00	-180.00	2507.6	
14	16541.5	80.00	359.58	12477.0	3994.6	245.2	0.00	0.00	4000.0	TGT#3 (Caballo 23 Fed Com #711H)
15	16553.0	89.77	359.56	12477.0	4008.1	245.1	2.00	180.00	4011.5	
16	18042.5	89.77	359.56	12483.0	5495.5	233.6	0.00	0.00	5500.0	TGT#4 (Caballo 23 Fed Com #711H)
17	18048.2	89.66	359.56	12483.0	5501.2	233.6	2.00	180.00	5505.7	
18	19043.3	89.66	359.56	12489.0	6496.2	225.9	0.00	0.00	6500.0	TGT#5 (Caballo 23 Fed Com #711H)
19	19072.1	90.23	359.56	12489.0	6525.0	225.7	2.00	0.00	6528.8	
20	20062.1	90.23	359.56	12485.0	7515.0	218.0	0.00	0.00	7518.2	PBHL (Caballo 23 Fed Com #711H)

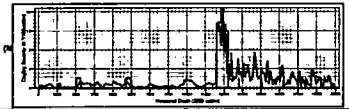
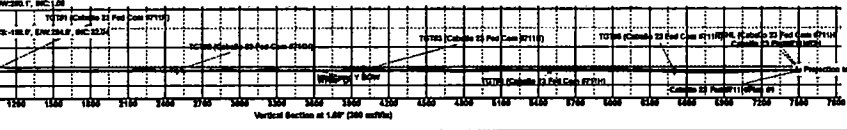
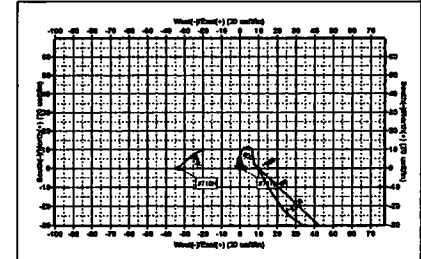
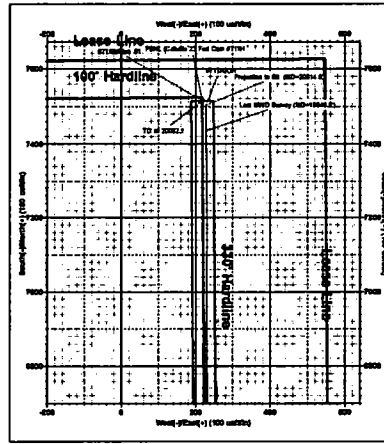
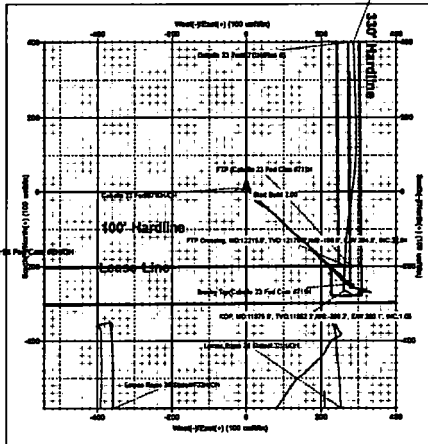
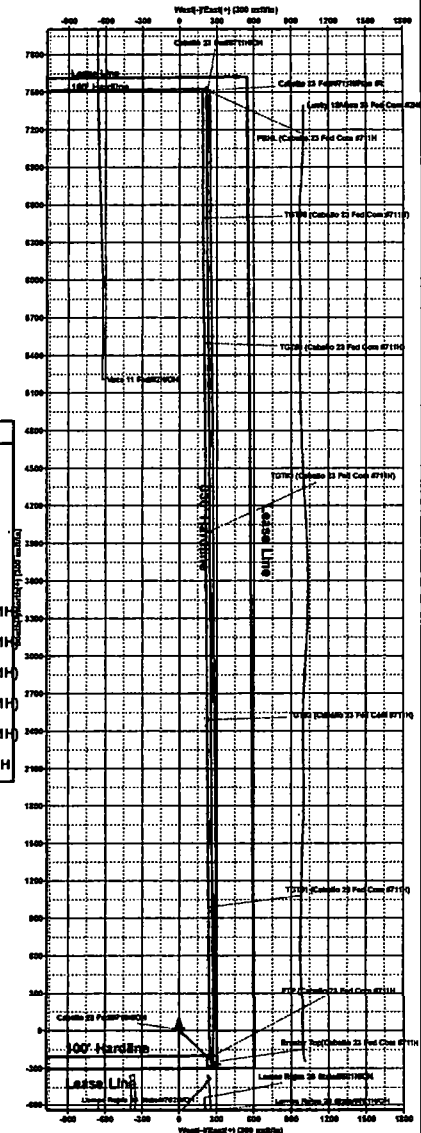
To convert a Magnetic Direction to a Grid Direction, Add 9.32°
To convert a Magnetic Direction to a True Direction, Add 6.75° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

CASING DETAILS

No casing data is available

WELLBORE TAYLOR DETAILS (MAP COORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top (Caballo 23 Fed Com #711H)	7764.0	-348.0	278.0	404270.00	788218.00
TGT#1 (Caballo 23 Fed Com #711H)	12477.0	3453.6	256.8	407011.80	788294.91
TGT#2 (Caballo 23 Fed Com #711H)	12477.0	3994.6	245.2	408811.80	788225.21
TGT#3 (Caballo 23 Fed Com #711H)	12481.0	882.8	288.4	408810.80	788306.41
TGT#4 (Caballo 23 Fed Com #711H)	12483.0	5495.5	233.6	410013.00	788271.81
PTP (Caballo 23 Fed Com #711H)	12484.0	-189.0	278.0	404325.00	788218.00
PBHL (Caballo 23 Fed Com #711H)	12488.0	7516.0	218.0	410233.00	788258.00
TGT#5 (Caballo 23 Fed Com #711H)	12489.0	6496.2	225.9	410214.20	788293.87



Lea County, NM (NAD 83 NME)
Caballo 23 Fed #711H
Plan #1