



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Vaca 24 Fed Com

#702H

OH

Design: OH

Final PVA

14 August, 2020

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Vaca 24 Fed Com Well: #702H Wellbore: OH Design: OH		Local Co-ordinate Reference: TVD Reference: KB = 32' @ 3374.0usft MD Reference: KB = 32' @ 3374.0usft North Reference: Grid Survey Calculation Method: Minimum Curvature Database: EDM 5000.14		Well #702H KB = 32' @ 3374.0usft KB = 32' @ 3374.0usft Grid Minimum Curvature EDM 5000.14	
Project Lea County, NM (NAD 83 NME)					
Map System: US State Plane 1983 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone		System Datum: Mean Sea Level			
Site Vaca 24 Fed Com					
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 404,270.00 usft Easting: 789,366.00 usft Slot Radius: 13-3/16 "		Latitude: 32° 6' 31.982 N Longitude: 103° 31' 56.186 W Grid Convergence: 0.43 °	
Well #702H					
Well Position +N/-S 0.0 usft +E/-W 0.0 usft Wellhead Elevation: 0.0 usft		404,270.00 usft 789,333.00 usft usft		Latitude: 32° 6' 31.985 N Longitude: 103° 31' 56.570 W Ground Level: 3,342.0 usft	
Wellbore OH					
Magnetics					
Model Name IGRF2015		Sample Date 8/9/2019		Declination (°) 6.69 Dip Angle (°) 59.93 Field Strength (nT) 47,654.11874851	
Design OH					
Audit Notes:					
Version: 1.0		Phase: ACTUAL		Tie On Depth: 0.0	
Vertical Section:		Depth From (TVD) (usft) 0.0		+N/-S (usft) 0.0 +E/-W (usft) 0.0 Direction (°) 1.23	
Survey Program					
From (usft) 124.0		To (usft) 22,719.0 Total MWD #1 (OH)		Survey (Wellbore)	
				Tool Name EOG MWD+IFR1 Description MWD + IFR1	

Company:			EOG Resources - Midland				Local Co-ordinate Reference:				
Project:			Lea County, NM (NAD 83 NME)				Well #702H				
Site:			Vaca 24 Fed Corn				KB = 32' @ 3374.0usft				
Well:			#702H				KB = 32' @ 3374.0usft				
Wellbore:			OH				Grid				
Design:			OH				Minimum Curvature				
							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	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0	
124.0	0.10	66.40	124.0	0.0	0.1	0.08	0.08	0.00	0.00	-0.1	
217.0	0.30	220.00	217.0	-0.1	0.0	0.42	0.22	165.16	0.00	-0.1	
309.0	0.30	185.30	309.0	-0.5	-0.2	0.19	0.00	-37.72	0.00	-0.5	
400.0	0.20	191.90	400.0	-0.9	-0.2	0.11	-0.11	7.25	0.00	-1.0	
584.0	0.60	264.90	584.0	-1.3	-1.2	0.31	0.22	39.67	0.00	-1.4	
771.0	1.10	269.20	771.0	-1.4	-4.0	0.27	0.27	2.30	0.00	-4.0	
962.0	1.50	260.20	961.9	-1.9	-8.3	0.23	0.21	-4.71	0.00	-8.5	
1,151.0	0.90	280.40	1,150.9	-2.0	-12.2	0.38	-0.32	10.69	0.00	-11.6	
1,262.0	1.50	279.90	1,261.9	-1.6	-14.5	0.54	0.54	-0.45	0.00	-14.0	
1,357.0	1.80	273.20	1,356.8	-1.3	-17.2	0.37	0.32	-7.05	0.00	-17.1	
1,452.0	1.70	271.80	1,451.8	-1.2	-20.1	0.11	-0.11	-1.47	0.00	-20.1	
1,547.0	1.30	61.90	1,546.8	-0.7	-20.6	3.05	-0.42	158.00	0.00	18.5	
1,642.0	2.00	76.10	1,641.7	0.2	-18.0	0.85	0.74	14.95	0.00	17.4	
1,737.0	2.00	75.60	1,736.7	1.1	-14.8	0.02	0.00	-0.53	0.00	14.1	
1,832.0	1.90	74.10	1,831.6	1.9	-11.7	0.12	-0.11	-1.58	0.00	10.7	
1,927.0	1.90	72.80	1,926.6	2.8	-8.7	0.05	0.00	-1.37	0.00	7.4	
2,022.0	5.00	79.60	2,021.4	4.0	-3.1	3.29	3.26	7.16	0.00	2.4	
2,118.0	8.40	83.10	2,116.7	5.6	8.0	3.57	3.54	3.65	0.00	-6.2	
2,213.0	9.50	82.10	2,210.5	7.5	22.7	1.17	1.16	-1.05	0.00	-15.7	
2,308.0	9.40	82.30	2,304.3	9.6	38.1	0.11	-0.11	0.21	0.00	-22.8	
2,402.0	7.70	92.40	2,397.2	10.4	52.0	2.41	-1.81	10.74	0.00	-24.2	
2,498.0	7.80	93.20	2,492.3	9.8	64.9	0.15	0.10	0.83	0.00	-25.3	
2,593.0	8.30	90.20	2,586.4	9.4	78.2	0.69	0.53	-3.16	0.00	-27.5	
2,688.0	8.50	90.90	2,680.4	9.3	92.1	0.24	0.21	0.74	0.00	-29.8	
2,782.0	8.60	90.80	2,773.3	9.0	106.1	0.11	0.11	-0.11	0.00	-32.4	
2,877.0	9.00	89.00	2,867.2	9.1	120.6	0.51	0.42	-1.89	0.00	-35.6	

Company:		EOG Resources - Midland			Local Co-ordinate Reference:					
Project:	Lea County, NM (NAD 83 NME)				TVD Reference:					
Site:	Vaca 24 Fed Com				MD Reference:					
Well:	#702H				North Reference:					
Wellbore:	OH				Survey Calculation Method:					
Design:	OH				Database:					
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)
2,972.0	6.40	84.10	2,961.4	9.7	133.3	2.82	-2.74	-5.16	-37.1	3.1
3,067.0	5.50	85.10	3,055.8	10.7	143.1	0.95	-0.95	1.05	-35.3	4.5
3,162.0	6.20	82.20	3,150.3	11.8	152.7	0.80	0.74	-3.05	-33.7	3.7
3,257.0	7.00	80.70	3,244.7	13.4	163.5	0.86	0.84	-1.58	-33.2	4.2
3,353.0	8.20	82.70	3,339.9	15.2	176.1	1.28	1.25	2.08	-34.1	6.7
3,448.0	8.50	83.50	3,433.9	16.9	189.8	0.34	0.32	0.84	-36.3	8.2
3,542.0	6.60	90.30	3,527.0	17.6	202.1	2.23	-2.02	7.23	-35.9	12.9
3,638.0	6.40	88.60	3,622.4	17.7	213.0	0.29	-0.21	-1.77	-35.4	11.6
3,733.0	5.20	76.80	3,716.9	18.8	222.5	1.77	-1.26	-12.42	-35.2	5.4
3,828.0	4.70	90.90	3,811.6	19.8	230.5	1.38	-0.53	14.84	-29.3	14.3
3,923.0	4.60	89.70	3,906.3	19.7	238.2	0.15	-0.11	-1.26	-25.7	13.3
4,018.0	8.00	69.10	4,000.7	22.1	248.2	4.24	3.58	-21.68	-28.0	5.9
4,113.0	9.80	70.00	4,094.6	27.2	262.0	1.90	1.89	0.95	-31.6	10.1
4,208.0	8.00	81.30	4,188.4	31.0	276.1	2.63	-1.89	11.89	-32.1	19.0
4,303.0	5.00	99.80	4,282.8	31.3	286.8	3.81	-3.16	19.47	-23.6	28.0
4,398.0	3.50	132.50	4,377.6	28.6	293.0	2.94	-1.58	34.42	-2.8	30.4
4,493.0	3.50	130.40	4,472.4	24.8	297.3	0.13	0.00	-2.21	-1.1	22.4
4,588.0	5.00	123.20	4,567.1	20.6	303.0	1.67	1.58	-7.58	-2.8	16.1
4,684.0	1.70	100.20	4,662.9	18.1	307.9	3.64	-3.44	-23.96	-7.4	10.7
4,779.0	2.10	114.90	4,757.9	17.1	310.9	0.66	0.42	15.47	-4.3	11.0
4,874.0	1.80	132.20	4,852.8	15.4	313.5	0.69	-0.32	18.21	-3.5	11.8
4,969.0	1.60	103.60	4,947.8	14.1	315.9	0.91	-0.21	-30.11	-11.4	8.0
5,064.0	1.90	103.00	5,042.7	13.4	318.8	0.32	0.32	-0.63	-14.4	7.8
5,158.0	1.50	100.10	5,136.7	12.8	321.5	0.44	-0.43	-3.09	-17.5	7.0
5,253.0	1.70	90.70	5,231.7	12.6	324.1	0.35	0.21	-9.89	-21.1	3.9
5,348.0	1.00	234.90	5,326.7	12.1	324.9	2.71	-0.74	151.79	19.7	10.0
5,443.0	2.50	215.70	5,421.6	9.9	323.0	1.67	1.58	-20.21	12.4	15.7

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Site:			Vaca 24 Fed Corn			MD Reference: KB = 32' @ 3374.0usft				
Well:			#702H			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)
5,538.0	2.40	209.40	5,516.5	6.5	320.8	0.30	-0.11	-6.63	6.6	16.7
5,633.0	2.20	212.20	5,611.4	3.2	318.8	0.24	-0.21	2.95	3.6	16.5
5,728.0	2.10	206.50	5,706.4	0.1	317.1	0.25	-0.11	-6.00	-1.6	16.6
5,823.0	2.00	201.20	5,801.3	-3.0	315.7	0.23	-0.11	-5.58	-6.5	16.2
5,918.0	1.90	199.80	5,896.3	-6.0	314.6	0.12	-0.11	-1.47	-10.2	16.0
6,014.0	2.10	196.00	5,992.2	-9.2	313.6	0.25	0.21	-3.96	-14.6	15.2
6,109.0	1.60	309.30	6,087.2	-10.0	312.0	3.27	-0.53	119.26	19.0	9.0
6,203.0	2.70	314.80	6,181.1	-7.6	309.5	1.19	1.17	5.85	16.3	7.2
6,299.0	1.10	355.60	6,277.1	-5.1	307.8	2.08	-1.67	42.50	14.4	-3.7
6,394.0	0.30	331.80	6,372.1	-4.0	307.6	0.88	-0.84	-25.05	13.6	2.1
6,489.0	0.40	321.00	6,467.1	-3.5	307.3	0.13	0.11	-11.37	12.4	4.5
6,583.0	0.30	350.90	6,561.0	-3.0	307.0	0.22	-0.11	31.81	12.5	-2.1
6,678.0	0.30	9.40	6,656.0	-2.5	307.0	0.10	0.00	19.47	10.7	-5.9
6,773.0	0.50	22.90	6,751.0	-1.9	307.2	0.23	0.21	14.21	8.4	-8.1
6,868.0	0.50	25.90	6,846.0	-1.1	307.6	0.03	0.00	3.16	7.1	-8.5
6,963.0	0.60	17.40	6,941.0	-0.3	307.9	0.14	0.11	-8.95	7.4	-7.5
7,058.0	0.50	24.60	7,036.0	0.6	308.2	0.13	-0.11	7.58	5.5	-8.3
7,153.0	0.40	14.60	7,131.0	1.3	308.5	0.13	-0.11	-10.53	6.1	-7.2
7,248.0	0.40	357.70	7,226.0	1.9	308.5	0.12	0.00	-17.79	7.3	-5.3
7,343.0	0.60	339.20	7,321.0	2.7	308.4	0.27	0.21	-19.47	7.8	-2.8
7,438.0	0.40	298.90	7,416.0	3.3	307.9	0.41	-0.21	-42.42	7.0	2.6
7,534.0	0.30	303.90	7,512.0	3.6	307.4	0.11	-0.10	5.21	6.6	2.0
7,628.0	0.10	324.50	7,606.0	3.9	307.1	0.22	-0.21	21.91	6.6	-0.4
7,723.0	0.30	121.00	7,701.0	3.8	307.3	0.41	0.21	164.74	-6.4	-2.2
7,818.0	0.70	114.40	7,796.0	3.4	308.0	0.42	0.42	-6.95	-6.9	-3.0
7,913.0	1.10	138.30	7,891.0	2.5	309.2	0.57	0.42	25.16	-9.0	0.3
8,008.0	1.10	148.00	7,986.0	1.1	310.3	0.20	0.00	10.21	-10.6	2.0

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Site: Vaca 24 Fed Com				KB = 32' @ 3374.0usft						
Well: #702H				KB = 32' @ 3374.0usft						
Wellbore: OH				Grid						
Design: OH				Minimum Curvature						
				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)
8,198.0	0.80	147.40	8,176.0	-1.6	312.0	0.16	-0.16	-0.32	-13.8	1.8
8,293.0	0.90	168.10	8,270.9	-2.9	312.5	0.34	0.11	21.79	-13.6	6.8
8,389.0	1.20	170.40	8,366.9	-4.6	312.8	0.32	0.31	2.40	-15.1	7.4
8,484.0	1.00	173.40	8,461.9	-6.4	313.0	0.22	-0.21	3.16	-16.5	8.2
8,579.0	1.50	178.40	8,556.9	-8.5	313.2	0.54	0.53	5.26	-17.8	9.7
8,674.0	0.70	228.80	8,651.9	-10.1	312.8	1.25	-0.84	53.05	-5.2	20.8
8,769.0	0.90	311.90	8,746.9	-10.0	311.8	1.13	0.21	87.47	19.2	8.3
8,864.0	0.50	248.70	8,841.9	-9.7	310.8	0.85	-0.42	-66.53	0.5	20.2
8,959.0	1.00	202.90	8,936.9	-10.6	310.1	0.78	0.53	-48.21	-15.3	14.2
9,054.0	1.10	324.30	9,031.8	-10.6	309.3	1.93	0.11	127.79	19.6	6.3
9,149.0	1.10	321.50	9,126.8	-9.1	308.2	0.06	0.00	-2.95	17.4	7.2
9,244.0	0.80	339.10	9,221.8	-7.8	307.4	0.44	-0.32	18.53	17.3	1.9
9,339.0	0.60	352.70	9,316.8	-6.7	307.1	0.27	-0.21	14.32	16.1	-2.0
9,434.0	1.00	345.90	9,411.8	-5.4	306.8	0.43	0.42	-7.16	14.9	-0.2
9,529.0	1.00	14.70	9,506.8	-3.8	306.8	0.52	0.00	30.32	11.4	-6.9
9,624.0	1.10	10.20	9,601.8	-2.1	307.2	0.14	0.11	-4.74	10.2	-6.1
9,719.0	1.00	341.10	9,696.8	-0.4	307.1	0.56	-0.11	-30.63	10.2	-0.8
9,813.0	1.30	324.00	9,790.7	1.2	306.2	0.48	0.32	-18.19	8.2	2.0
9,908.0	2.10	315.50	9,885.7	3.3	304.3	0.88	0.84	-8.95	5.0	3.0
10,003.0	1.10	329.10	9,980.7	5.4	302.6	1.12	-1.05	14.32	2.9	2.2
10,098.0	0.80	189.50	10,075.7	5.5	302.1	1.88	-0.32	-146.95	-3.6	-0.3
10,193.0	1.60	226.90	10,170.6	3.9	301.0	1.14	0.84	39.37	-4.9	2.3
10,288.0	3.30	251.10	10,265.5	2.1	297.4	2.06	1.79	25.47	-7.5	4.7
10,383.0	3.30	239.80	10,360.4	-0.1	292.5	0.68	0.00	-11.89	-13.7	2.6
10,478.0	4.20	218.60	10,455.2	-4.2	288.0	1.72	0.95	-22.32	-19.7	-3.5
10,573.0	2.70	214.60	10,550.0	-8.8	284.5	1.60	-1.58	-4.21	-25.1	-5.1
10,668.0	3.00	166.60	10,644.9	-13.0	283.8	2.46	0.32	-50.53	-17.0	-23.8

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10,762.0	1.80	178.80	10,738.8	-16.9	284.4	1.38	-1.28	12.98	-25.5	-19.1
10,857.0	3.20	128.80	10,833.7	-20.1	286.5	2.59	1.47	-52.63	-5.4	-33.0
10,952.0	3.70	119.70	10,928.6	-23.2	291.2	0.78	0.53	-9.58	-5.8	-33.8
11,047.0	3.20	109.00	11,023.4	-25.6	296.4	0.86	-0.53	-11.26	-5.0	-34.9
11,142.0	3.10	121.80	11,118.3	-27.8	301.1	0.75	-0.11	13.47	-17.8	-32.3
11,237.0	4.00	118.80	11,213.1	-30.8	306.2	0.97	0.95	-3.16	-21.9	-33.4
11,332.0	6.20	88.20	11,307.7	-32.2	314.2	3.61	2.32	-32.21	-9.9	-41.6
11,427.0	5.70	81.80	11,402.2	-31.4	324.0	0.87	-0.53	-6.74	-15.0	-43.0
11,522.0	3.90	82.00	11,496.9	-30.3	331.9	1.89	-1.89	0.21	-23.1	-42.9
11,617.0	1.60	69.20	11,591.7	-29.4	336.3	2.49	-2.42	-13.47	-17.5	-47.7
11,712.0	0.90	38.30	11,686.7	-28.3	338.0	1.00	-0.74	-32.53	7.6	-50.6
11,829.0	0.40	50.20	11,803.7	-27.3	338.9	0.44	-0.43	10.17	-4.4	-50.9
11,924.0	0.10	9.70	11,898.7	-27.0	339.2	0.35	-0.32	-42.63	29.4	-41.7
11,957.1	0.69	320.87	11,931.8	-26.8	339.1	1.89	1.77	-147.38	50.6	-5.4
KOP (Vaca 24 Fed Com #702H)										
12,019.0	1.85	316.51	11,993.7	-25.8	338.1	1.89	1.88	-7.04	51.8	0.5
12,114.0	19.21	340.95	12,086.8	-9.8	331.9	18.47	18.27	25.73	46.2	-15.3
12,209.0	31.78	352.63	12,172.4	30.0	323.6	14.19	13.23	12.29	31.7	-17.5
12,260.0	38.01	353.11	12,214.2	58.9	320.0	12.22	12.21	0.94	23.4	-15.3
HL Crossing, MD:12260.0', TVD:12214.2', N/S:58.9', E/W:320.0', INC:38.01										
12,304.0	43.38	353.43	12,247.5	87.4	316.6	12.22	12.21	0.72	15.4	-13.1
12,399.0	47.12	352.99	12,314.4	154.4	308.6	3.95	3.94	-0.46	1.9	-6.6
12,451.3	49.38	356.52	12,349.2	193.2	305.1	6.64	4.32	6.75	-1.8	-3.6
FTP (Vaca 24 Fed Com #702H)										
12,494.0	51.30	359.23	12,376.5	226.0	303.9	6.64	4.50	6.34	-2.7	-2.6
12,589.0	65.76	359.93	12,426.0	306.8	303.3	15.23	15.22	0.74	-6.7	-2.6
12,684.0	71.52	2.65	12,460.6	395.2	305.4	6.62	6.06	2.86	-11.5	-5.1

Company:			EOG Resources - Midland				Local Co-ordinate Reference:				
Project:			Lea County, NM (NAD 83 NME)				Well #702H				
Site:			Vaca 24 Fed Com				TVD Reference: KB = 32' @ 3374.0usft				
Well:			#702H				MD Reference: KB = 32' @ 3374.0usft				
Wellbore:			OH				North Reference: Grid				
Design:			OH				Survey Calculation Method: Minimum Curvature				
							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)	
12,779.0	70.55	359.23	12,491.4	485.1	306.8	3.55	-1.02	-3.60	-4.1	-7.5	
12,874.0	82.02	355.36	12,513.9	577.1	302.4	12.70	12.07	-4.07	10.0	-3.8	
12,969.0	91.34	355.36	12,519.4	671.5	294.8	9.81	9.81	0.00	16.2	3.1	
13,063.0	94.86	356.77	12,514.3	765.1	288.3	4.03	3.74	1.50	12.0	8.9	
13,158.0	91.43	359.05	12,509.1	859.9	284.9	4.33	-3.61	2.40	7.6	11.6	
13,253.0	90.81	358.61	12,507.3	954.9	282.9	0.80	-0.65	-0.46	6.6	12.8	
13,348.0	90.15	356.77	12,506.5	1,049.8	279.1	2.06	-0.69	-1.94	6.7	15.9	
13,443.0	92.26	0.46	12,504.5	1,144.7	276.8	4.47	2.22	3.88	5.5	17.5	
13,538.0	92.20	358.61	12,500.8	1,239.6	276.0	1.95	-0.06	-1.95	2.7	17.5	
13,633.0	91.12	358.61	12,498.0	1,334.6	273.7	1.14	-1.14	0.00	0.8	19.1	
13,728.0	93.76	359.40	12,494.0	1,429.4	272.1	2.90	2.78	0.83	-2.4	20.0	
13,823.0	91.03	3.53	12,490.0	1,524.3	274.5	5.21	-2.87	4.35	-5.5	16.8	
13,918.0	87.60	0.90	12,491.1	1,619.2	278.2	4.55	-3.61	-2.77	-3.5	12.5	
13,993.0	86.88	359.18	12,494.8	1,694.1	278.2	2.48	-0.96	-2.29	0.8	11.8	
TGT 1 (Vaca 24 Fed Com #702H)											
14,014.0	86.68	358.70	12,495.9	1,715.1	277.8	2.48	-0.96	-2.29	2.0	12.1	
14,035.0	86.99	358.26	12,497.1	1,736.0	277.3	2.56	1.48	-2.10	3.2	12.5	
14,130.0	92.04	358.61	12,497.9	1,831.0	274.7	5.33	5.32	0.37	4.2	14.3	
14,225.0	91.91	0.72	12,494.6	1,925.9	274.1	2.22	-0.14	2.22	1.0	14.1	
14,320.0	89.27	2.48	12,493.7	2,020.8	276.8	3.34	-2.78	1.85	0.1	10.8	
14,415.0	90.86	3.53	12,493.5	2,115.7	281.8	2.01	1.67	1.11	0.1	5.0	
14,510.0	88.53	2.92	12,494.0	2,210.6	287.1	2.54	-2.45	-0.64	0.7	-1.0	
14,605.0	93.10	3.36	12,492.7	2,305.4	292.3	4.83	4.81	0.46	-0.5	-7.0	
14,700.0	90.81	2.57	12,489.5	2,400.2	297.2	2.55	-2.41	-0.83	-3.6	-12.6	
14,795.0	88.04	0.90	12,490.4	2,495.1	300.1	3.40	-2.92	-1.76	-2.6	-16.2	
14,890.0	88.62	0.81	12,493.2	2,590.1	301.5	0.62	0.61	-0.09	0.3	-18.3	
14,985.0	90.55	1.16	12,493.9	2,685.1	303.2	2.06	2.03	0.37	1.1	-20.7	

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Vaca 24 Fed Com #702H Well: OH Wellbore: OH Design: OH				Local Co-ordinate Reference: Well #702H KB = 32' @ 3374.0usft TVD Reference: KB = 32' @ 3374.0usft MD Reference: Grid North Reference: Minimum Curvature Survey Calculation Method: EDM 5000.14 Database:							
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)	
15,080.0	87.08	357.21	12,495.8	2,780.0	301.8	5.53	-3.65	-4.16	3.2	-20.1	
15,175.0	87.65	356.33	12,500.2	2,874.7	296.5	1.10	0.60	-0.93	7.7	-15.5	
15,270.0	92.48	359.05	12,500.1	2,969.6	292.6	5.83	5.08	2.86	7.7	-12.4	
15,365.0	91.38	359.40	12,496.9	3,064.6	291.3	1.22	-1.16	0.37	4.6	-11.8	
15,460.0	90.68	359.23	12,495.2	3,159.5	290.2	0.76	-0.74	-0.18	3.0	-11.4	
15,555.0	91.30	358.70	12,493.5	3,254.5	288.5	0.86	0.65	-0.56	1.4	-10.4	
15,649.0	93.63	359.75	12,489.5	3,348.4	287.2	2.72	2.48	1.12	-2.5	-9.9	
15,744.0	91.56	1.16	12,485.2	3,443.3	288.0	2.64	-2.18	1.48	-6.7	-11.4	
15,839.0	87.74	0.46	12,485.8	3,538.3	289.3	4.09	-4.02	-0.74	-6.0	-13.4	
15,934.0	88.35	0.63	12,489.0	3,633.2	290.2	0.67	0.64	0.18	-2.6	-15.1	
16,029.0	88.31	1.16	12,491.8	3,728.2	291.7	0.56	-0.04	0.56	0.2	-17.3	
16,124.0	92.04	2.13	12,491.5	3,823.1	294.4	4.06	3.93	1.02	0.1	-20.7	
16,219.0	90.07	0.72	12,489.7	3,918.0	296.8	2.55	-2.07	-1.48	-1.6	-23.8	
16,314.0	91.21	1.51	12,488.7	4,013.0	298.6	1.46	1.20	0.83	-2.5	-26.4	
16,409.0	89.67	0.72	12,488.0	4,108.0	300.5	1.82	-1.62	-0.83	-3.1	-29.0	
16,496.7	88.54	357.96	12,489.3	4,195.6	299.5	3.40	-1.29	-3.15	-1.6	-28.6	
TGT 2 (Vaca 24 Fed Com #702H)											
16,504.0	88.44	357.73	12,489.5	4,203.0	299.2	3.40	-1.29	-3.15	-1.4	-28.4	
16,599.0	89.89	357.29	12,490.9	4,297.9	295.1	1.60	1.53	-0.46	-0.2	-25.0	
16,694.0	87.25	357.38	12,493.3	4,392.7	290.7	2.78	-2.78	0.09	2.2	-21.3	
16,789.0	88.84	357.64	12,496.5	4,487.6	286.5	1.70	1.67	0.27	5.3	-17.9	
16,884.0	89.27	357.47	12,498.1	4,582.5	282.5	0.49	0.45	-0.18	6.8	-14.6	
16,979.0	90.15	358.17	12,498.6	4,677.4	278.9	1.18	0.93	0.74	7.2	-11.7	
17,074.0	90.51	358.52	12,498.0	4,772.4	276.1	0.53	0.38	0.37	6.6	-9.7	
17,169.0	86.81	357.91	12,500.2	4,867.3	273.2	3.95	-3.89	-0.64	8.7	-7.5	
17,264.0	88.53	357.29	12,504.1	4,962.1	269.2	1.92	1.81	-0.65	12.5	-4.2	
17,359.0	89.76	356.77	12,505.5	5,057.0	264.3	1.41	1.29	-0.55	13.8	0.0	

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Vaca 24 Fed Com
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 32' @ 3374.0usft
MD Reference: KB = 32' @ 3374.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Well #702H
KB = 32' @ 3374.0usft
KB = 32' @ 3374.0usft
Grid
Minimum Curvature
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)
17,454.0	92.13	358.08	12,504.0	5,151.8	260.0	2.85	2.49	1.38	12.2	3.5
17,549.0	93.10	358.61	12,499.6	5,246.7	257.3	1.16	1.02	0.56	7.8	5.5
17,644.0	91.78	359.49	12,495.6	5,341.6	255.7	1.67	-1.39	0.93	3.7	6.3
17,739.0	89.58	1.69	12,494.5	5,436.6	256.7	3.27	-2.32	2.32	2.5	4.6
17,834.0	90.29	2.13	12,494.6	5,531.5	259.8	0.88	0.75	0.46	2.5	0.7
17,929.0	89.01	3.62	12,495.1	5,626.4	264.6	2.07	-1.35	1.57	3.0	-4.7
18,024.0	87.52	3.52	12,498.0	5,721.2	270.5	1.57	-1.57	-0.11	5.8	-11.4
18,119.0	91.47	1.51	12,498.9	5,816.0	274.7	4.67	4.16	-2.12	6.6	-16.3
18,214.0	92.97	1.95	12,495.2	5,910.9	277.6	1.65	1.58	0.46	2.8	-19.9
18,309.0	90.77	0.55	12,492.1	6,005.8	279.6	2.74	-2.32	-1.47	-0.4	-22.7
18,404.0	90.33	358.17	12,491.2	6,100.8	278.6	2.55	-0.46	-2.51	-1.4	-22.3
18,499.0	90.68	358.61	12,490.3	6,195.8	275.9	0.59	0.37	0.46	-2.3	-20.4
18,593.0	88.40	359.58	12,491.1	6,289.8	274.4	2.64	-2.43	1.03	-1.6	-19.6
18,688.0	92.22	2.04	12,490.6	6,384.7	275.7	4.78	4.02	2.59	-2.2	-21.7
18,783.0	84.09	357.82	12,493.6	6,479.6	275.6	9.64	-8.56	-4.44	0.9	-22.3
18,879.0	89.27	357.12	12,499.2	6,575.3	271.4	5.44	5.40	-0.73	6.3	-18.8
18,974.0	90.51	357.47	12,499.4	6,670.2	266.9	1.36	1.31	0.37	6.4	-15.1
19,000.4	90.06	357.76	12,499.2	6,696.6	265.8	2.03	-1.69	1.12	6.2	-14.2

TGT 3 (Vaca 24 Fed Com #702H)

19,068.0	88.92	358.52	12,499.8	6,764.1	263.6	2.03	-1.69	1.12	7.0	-12.5
19,163.0	88.92	358.52	12,501.6	6,859.1	261.2	0.00	0.00	0.00	8.9	-10.8
19,258.0	93.71	1.07	12,499.4	6,954.0	260.8	5.71	5.04	2.68	7.0	-11.2
19,353.0	91.70	0.80	12,495.0	7,048.9	262.4	2.13	-2.12	-0.28	2.7	-13.5
19,448.0	89.80	1.40	12,493.7	7,143.9	264.2	2.10	-2.00	0.63	1.6	-16.0
19,543.0	89.70	2.20	12,494.1	7,238.8	267.2	0.85	-0.11	0.84	2.2	-19.7
19,638.0	90.20	2.50	12,494.2	7,333.7	271.1	0.61	0.53	0.32	2.5	-24.4
19,733.0	88.04	0.23	12,495.7	7,428.7	273.4	3.30	-2.27	-2.39	4.1	-27.3

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Vaca 24 Fed Com
Well: #702H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 32' @ 3374.0usft
MD Reference: KB = 32' @ 3374.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Well #702H
KB = 32' @ 3374.0usft
KB = 32' @ 3374.0usft
Grid
Minimum Curvature
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)
19,828.0	86.20	358.08	12,500.4	7,523.5	272.0	2.98	-1.94	-2.26	9.1	-26.7
19,923.0	87.03	358.79	12,506.1	7,618.3	269.4	1.15	0.87	0.75	14.9	-24.8
20,018.0	92.88	357.03	12,506.1	7,713.2	265.9	6.43	6.16	-1.85	15.1	-22.1
20,113.0	94.07	358.00	12,500.4	7,808.0	261.8	1.61	1.25	1.02	9.5	-18.7
20,208.0	90.15	357.91	12,496.9	7,902.8	258.4	4.13	-4.13	-0.09	6.3	-16.0
20,303.0	89.63	358.35	12,497.1	7,997.8	255.3	0.72	-0.55	0.46	6.7	-13.7
20,398.0	93.67	358.17	12,494.3	8,092.7	252.4	4.26	4.25	-0.19	4.1	-11.5
20,493.0	89.54	357.64	12,491.7	8,187.5	249.0	4.38	-4.35	-0.56	1.6	-8.8
20,513.0	89.14	357.82	12,491.9	8,207.5	248.2	2.19	-2.00	0.90	1.9	-8.1
20,588.0	90.24	358.61	12,492.3	8,282.5	245.8	1.81	1.47	1.05	2.5	-6.4
20,684.0	86.64	357.56	12,494.9	8,378.4	242.6	3.91	-3.75	-1.09	5.3	-3.9
20,705.0	89.49	358.96	12,495.6	8,399.4	242.0	15.12	13.57	6.67	6.0	-3.4
20,779.0	87.30	359.67	12,497.7	8,473.3	241.1	3.11	-2.96	0.96	8.2	-3.1
20,874.0	89.85	1.86	12,500.1	8,568.3	242.4	3.54	2.68	2.31	10.8	-5.1
20,969.0	88.00	358.70	12,501.8	8,663.2	242.8	3.85	-1.95	-3.33	12.8	-6.3
21,002.3	87.80	358.73	12,503.1	8,696.5	242.1	0.61	-0.60	0.09	14.1	-5.8
TGT 4 (Vaca 24 Fed Com #702H)										
21,064.0	87.43	358.79	12,505.6	8,758.1	240.8	0.61	-0.60	0.09	16.9	-5.0
21,159.0	94.77	359.67	12,503.8	8,853.0	239.5	7.78	7.73	0.93	15.4	-4.4
21,254.0	95.47	0.19	12,495.3	8,947.7	239.4	0.92	0.74	0.55	7.3	-5.0
21,349.0	89.98	359.58	12,490.8	9,042.5	239.2	5.81	-5.78	-0.64	3.2	-5.6
21,444.0	90.51	0.72	12,490.4	9,137.5	239.4	1.32	0.56	1.20	3.2	-6.5
21,539.0	91.25	1.07	12,488.9	9,232.5	240.9	0.86	0.78	0.37	2.1	-8.7
21,634.0	86.95	0.63	12,490.4	9,327.4	242.3	4.55	-4.53	-0.46	4.0	-10.9
21,729.0	87.87	1.07	12,494.7	9,422.3	243.7	1.07	0.97	0.46	8.7	-13.0
21,832.0	89.80	359.58	12,496.8	9,525.3	244.3	2.37	1.87	-1.45	11.2	-14.4
21,927.0	89.19	358.17	12,497.7	9,620.3	242.4	1.62	-0.64	-1.48	12.4	-13.3



EOG Resources
Final PVA

Company: EOG Resources - Midland				Local Co-ordinate Reference:				Well #702H			
Project: Lea County, NM (NAD 83 NME)				TVD Reference:				KB = 32' @ 3374.0usft			
Site: Vaca 24 Fed Com				MD Reference:				KB = 32' @ 3374.0usft			
Well: #702H				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)	
22,022.0	90.68	358.00	12,497.8	9,715.2	239.3	1.58	1.57	-0.18	12.9	-10.8	
22,117.0	91.96	358.17	12,495.6	9,810.1	236.1	1.36	1.35	0.18	11.1	-8.4	
22,212.0	93.45	358.35	12,491.1	9,905.0	233.2	1.58	1.57	0.19	7.0	-6.2	
22,307.0	92.13	359.58	12,486.5	9,999.9	231.5	1.90	-1.39	1.29	2.8	-5.2	
22,402.0	91.69	0.02	12,483.3	10,094.8	231.2	0.65	-0.46	0.46	0.0	-5.6	
22,497.0	91.60	0.70	12,480.6	10,189.8	231.8	0.72	-0.09	0.72	-2.3	-7.0	
22,592.0	91.65	0.98	12,477.9	10,284.7	233.2	0.30	0.05	0.29	-4.6	-9.1	
22,664.0	91.56	1.07	12,475.9	10,356.7	234.4	0.18	-0.12	0.12	-6.4	-10.9	
Final MWD Survey (MD=22664.0')											
22,718.9	91.56	1.07	12,474.4	10,411.6	235.5	0.00	0.00	0.00	-7.6	-12.4	
PBHL (Vaca 24 Fed Com #702H)											
22,719.0	91.56	1.07	12,474.4	10,411.6	235.5	0.00	0.00	0.00	-7.6	-12.4	
Final Projection to Bit (MD=22719.0')											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
12,260.0	12,214.2	58.9	320.0	HL Crossing, MD:12260.0', TVD:12214.2', N/S:58.9', E/W:320.0', INC:38.01
22,664.0	12,475.9	10,356.7	234.4	Final MWD Survey (MD=22664.0')
22,719.0	12,474.4	10,411.6	235.5	Final Projection to Bit (MD=22719.0')

Checked By: _____	Approved By: _____	Date: _____
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