



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Magnolia 15 Fed Com

#745H

OH

Design: OH

Final PVA Report

11 October, 2019



Final PVA Report

Company:	EOG Resources - Midland		Local Co-ordinate Reference:	Well #745H
Project:	Lea County, NM (NAD 83 NME)		TVD Reference:	KB = 25' @ 3348.0usft
Site:	Magnolia 15 Fed Com		MD Reference:	KB = 25' @ 3348.0usft
Well:	#745H		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:	381,805.00 usft	Latitude:	32° 2' 51.321 N
From: Map	Easting:	780,373.00 usft	Longitude:	103° 33' 42.698 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:
				0.41 "

Well	#745H			
Well Position	+N-S	0.0 usft	Northing:	382,315.00 usft
	+E-W	0.0 usft	Easting:	782,281.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:
				3,323.0 usft

Wellbore	OH			
Magnetics	Model Name	Sample Date	Declination	Dip Angle
	IGRF2015	9/10/2019	(°)	(°)
			6.69	59.87
				Field Strength
				(nT)
				47,607.23183410

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
				0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	174.84

Survey Program	Date	10/11/2019		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
114.0	20,561.0	TrueShot MWD #1 (OH)	MWD	OWSG MWD - Standard



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Well:	#745H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (grid north azim)	TVD (usft)	N/S (usft)	EA (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	0.0	0.0	
114.0	0.44	188.65	114.0	-0.4	-0.1	0.39	0.39	0.00	0.0	0.0	
203.0	0.40	35.63	203.0	-0.5	0.1	0.92	-0.04	-171.93	0.0	0.0	
293.0	0.75	18.58	293.0	0.3	0.4	0.43	0.39	-18.84	0.0	0.0	
382.0	0.70	19.84	382.0	1.4	0.8	0.06	-0.08	1.19	0.0	0.0	
472.0	0.70	28.25	472.0	2.4	1.2	0.12	0.00	9.57	0.0	0.0	
560.0	0.75	3.47	560.0	3.4	1.5	0.38	0.06	-28.16	0.0	0.0	
658.0	0.82	354.59	658.0	4.8	1.5	0.17	-0.13	-9.08	0.0	0.0	
754.0	0.40	348.08	754.0	5.4	1.4	0.24	-0.23	-8.78	0.0	0.0	
849.0	0.35	5.14	849.0	6.0	1.4	0.13	-0.05	17.86	0.0	0.0	
944.0	0.84	342.28	944.0	7.0	1.2	0.58	0.52	-24.06	0.0	0.0	
1,040.0	0.62	318.44	1,039.9	8.0	0.6	0.41	-0.23	-26.92	0.0	0.0	
1,132.0	0.88	320.48	1,131.9	8.9	-0.2	0.29	0.28	4.40	0.0	0.0	
1,227.0	0.67	312.49	1,228.9	9.8	-1.0	0.34	-0.33	-8.42	0.0	0.0	
1,322.0	1.14	118.76	1,321.9	9.7	-0.6	1.78	0.60	172.92	0.0	0.0	
1,418.0	2.89	104.10	1,413.9	8.7	2.7	2.02	1.97	-13.47	0.0	0.0	
1,511.0	4.97	89.33	1,510.6	7.4	9.2	2.11	2.08	-4.81	0.0	0.0	
1,608.0	5.71	107.09	1,605.2	5.3	17.7	1.07	0.78	7.96	0.0	0.0	
1,701.0	8.78	113.24	1,699.4	1.1	28.8	3.34	3.24	8.47	0.0	0.0	
1,798.0	10.73	114.63	1,793.1	-5.5	43.8	2.06	2.04	1.48	0.0	0.0	
1,891.0	11.25	85.57	1,886.4	-10.1	60.9	3.85	0.55	-20.08	0.0	0.0	
1,988.0	13.71	85.56	1,979.1	-10.1	81.4	3.44	2.59	-10.84	0.0	0.0	
2,080.0	11.56	70.81	2,070.9	-6.1	101.4	4.15	-2.28	-15.90	0.0	0.0	
2,175.0	10.88	49.78	2,164.1	2.8	117.2	4.30	-0.74	-21.93	0.0	0.0	
2,270.0	10.29	28.31	2,257.5	18.0	128.2	3.98	-0.60	-21.55	0.0	0.0	
2,365.0	9.45	7.33	2,351.1	31.2	133.3	4.04	-0.88	-23.14	0.0	0.0	
2,460.0	9.41	8.10	2,444.8	48.8	135.2	0.20	-0.04	-1.20	0.0	0.0	



Final PVA Report

Company: EOG Resources - Midland		Local Coordinate Reference: VME #745H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference: KB = 25 @ 3348.0usft	
Site: Magnolia.15 Fed Com		MD Reference: KB = 25 @ 3348.0usft	
Well: #745H		North Reference: Grid	
Wellbore: OH		Survey Calculation Method: Minimum Curvature	
Design: OH		Database: EDM 5000.14	

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,855.0	9.58	5.86	2,538.5	62.2	138.8	0.20	0.18	-0.56	0.0	0.0	
2,850.0	8.09	38.95	2,632.5	75.4	141.6	5.22	-1.57	32.94	0.0	0.0	
2,745.0	7.98	35.81	2,726.5	88.1	149.4	0.22	-0.14	-1.20	0.0	0.0	
2,840.0	7.38	38.18	2,820.7	86.2	157.1	0.70	-0.81	2.49	0.0	0.0	
2,935.0	7.43	38.09	2,914.9	105.8	164.6	0.05	0.05	-0.09	0.0	0.0	
3,030.0	7.38	41.43	3,009.1	115.3	172.4	0.48	-0.05	3.52	0.0	0.0	
3,125.0	7.74	43.02	3,104.3	124.6	180.9	0.43	0.37	1.66	0.0	0.0	
3,221.0	9.01	25.53	3,168.3	138.0	188.5	2.98	1.34	-18.41	0.0	0.0	
3,316.0	8.48	25.35	3,292.2	149.1	184.7	0.58	-0.58	-0.19	0.0	0.0	
3,411.0	8.35	23.15	3,386.1	161.7	200.4	0.57	-0.14	-2.32	0.0	0.0	
3,506.0	7.78	25.79	3,480.2	173.8	205.9	0.72	-0.60	2.78	0.0	0.0	
3,601.0	8.18	35.90	3,574.3	185.1	212.7	1.53	0.42	10.84	0.0	0.0	
3,696.0	8.68	43.37	3,668.3	195.8	221.6	1.28	0.51	7.86	0.0	0.0	
3,791.0	9.05	38.45	3,762.1	206.9	231.1	0.90	0.41	-5.18	0.0	0.0	
3,886.0	7.34	29.13	3,856.2	218.0	238.7	2.27	-1.80	-9.81	0.0	0.0	
3,981.0	8.18	32.73	3,950.3	229.0	245.3	1.02	0.88	3.79	0.0	0.0	
4,077.0	7.60	32.03	4,045.4	240.1	252.4	0.81	-0.60	-0.73	0.0	0.0	
4,171.0	6.51	31.33	4,138.7	249.9	258.6	1.16	-1.18	-0.74	0.0	0.0	
4,267.0	8.90	35.90	4,234.0	259.3	264.7	0.69	0.41	4.76	0.0	0.0	
4,362.0	6.99	40.91	4,328.3	268.3	271.8	0.64	0.09	5.27	0.0	0.0	
4,457.0	6.99	50.14	4,422.6	276.3	280.0	1.18	0.00	9.72	0.0	0.0	
4,552.0	8.18	33.79	4,516.8	285.7	288.2	2.58	1.25	-17.21	0.0	0.0	
4,647.0	7.65	42.23	4,610.9	296.0	298.2	1.34	-0.56	8.88	0.0	0.0	
4,742.0	7.52	48.73	4,705.1	304.7	305.2	0.91	-0.14	6.84	0.0	0.0	
4,837.0	8.57	44.60	4,799.1	313.9	314.8	1.28	1.11	-4.35	0.0	0.0	
4,932.0	7.98	27.55	4,893.2	324.8	322.8	2.65	-0.64	-17.95	0.0	0.0	
5,027.0	7.21	25.61	4,987.3	336.0	328.4	0.83	-0.79	-2.04	0.0	0.0	



Final PVA Report

Company:	Eog Resources - Midland	Local Co-ordinate Reference:	Well 0745H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3348.0usf
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3348.0usf
Well:	0745H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usf)	Inc (°)	Azi (grid_north_azim)	TVD (usf)	N/S (usf)	E/W (usf)	DLeg (°/100usf)	Bulld (°/100usf)	Turn (°/100usf)	High to Plan (usf)	Right to Plan (usf)	
9,122.0	6.42	26.23	5,081.7	346.1	333.4	0.64	-0.83	0.65	0.0	0.0	
5,217.0	7.74	22.54	5,175.9	356.8	338.2	1.47	1.39	-3.88	0.0	0.0	
8,312.0	8.31	18.20	6,270.0	389.2	342.9	0.77	0.60	-3.52	0.0	0.0	
5,406.0	7.78	25.70	5,363.1	381.3	347.9	1.12	-0.56	6.91	0.0	0.0	
5,501.0	7.87	29.38	5,457.2	392.8	353.8	0.54	0.09	3.68	0.0	0.0	
5,596.0	7.87	29.57	5,551.3	404.1	360.2	0.03	0.00	0.19	0.0	0.0	
5,691.0	6.90	34.67	5,645.5	414.6	366.7	1.23	-1.02	5.37	0.0	0.0	
5,786.0	6.51	35.72	5,739.9	423.5	373.1	0.43	-0.41	1.11	0.0	0.0	
5,881.0	6.73	32.47	5,834.2	432.6	379.2	0.48	0.23	-3.42	0.0	0.0	
5,976.0	6.55	30.62	5,927.6	441.8	384.9	0.30	-0.19	-1.97	0.0	0.0	
6,070.0	5.85	26.40	6,022.0	450.8	389.8	0.88	-0.74	-4.44	0.0	0.0	
6,165.0	5.49	13.13	6,116.8	459.6	393.0	1.43	-0.38	-13.97	0.0	0.0	
6,260.0	6.02	13.48	6,211.1	468.9	395.2	0.56	0.56	0.37	0.0	0.0	
6,355.0	5.41	13.22	6,305.6	478.1	397.4	0.64	-0.64	-0.27	0.0	0.0	
6,450.0	5.01	13.05	6,400.2	488.5	399.4	0.42	-0.42	-0.18	0.0	0.0	
6,545.0	5.05	15.95	6,494.9	494.5	401.4	0.27	0.04	3.05	0.0	0.0	
6,640.0	5.84	17.88	6,589.5	502.9	404.0	0.55	0.52	2.03	0.0	0.0	
6,735.0	5.98	16.21	6,684.0	512.0	406.8	0.50	0.48	-1.76	0.0	0.0	
6,830.0	6.81	22.10	6,778.4	521.8	410.2	0.87	0.58	6.20	0.0	0.0	
6,925.0	6.55	31.24	6,872.8	531.4	415.0	1.09	0.04	9.62	0.0	0.0	
7,020.0	7.69	40.38	6,967.1	540.9	422.0	1.69	1.20	9.62	0.0	0.0	
7,114.0	7.47	41.52	7,060.2	550.2	430.1	0.28	-0.23	1.21	0.0	0.0	
7,209.0	7.30	43.28	7,154.5	559.3	438.3	0.30	-0.18	1.85	0.0	0.0	
7,304.0	7.12	45.57	7,248.7	567.8	446.7	0.38	-0.19	2.41	0.0	0.0	
7,399.0	7.38	45.13	7,343.0	576.2	455.2	0.28	0.27	-0.46	0.0	0.0	
7,494.0	7.34	43.90	7,437.2	584.9	463.7	0.17	-0.04	-1.29	0.0	0.0	
7,589.0	6.64	45.21	7,531.5	593.1	471.8	0.76	-0.74	1.58	0.0	0.0	



Final PVA Report

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Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3348.0ush
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3348.0ush
Well:	#745H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (grid north azim)	TVD (ush)	N/S (ush)	E/W (ush)	DLag (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
7,694.0	6.68	44.69	7,625.8	600.9	479.6	0.08	0.04	-0.55	0.0	0.0	
7,779.0	5.49	48.36	7,720.3	608.0	486.8	1.27	-1.25	1.76	0.0	0.0	
7,874.0	4.87	48.83	7,814.9	614.0	493.1	0.55	-0.55	0.18	0.0	0.0	
7,969.0	4.40	41.96	7,909.6	618.5	498.5	0.72	-0.60	-4.81	0.0	0.0	
8,065.0	4.00	40.82	8,005.3	624.8	503.1	0.43	-0.42	-1.16	0.0	0.0	
8,159.0	3.43	39.68	8,099.1	629.4	507.1	0.61	-0.61	-1.21	0.0	0.0	
8,254.0	2.99	44.85	8,194.0	633.4	510.6	0.56	-0.46	5.55	0.0	0.0	
8,349.0	2.90	45.65	8,288.8	636.8	514.1	0.10	-0.09	0.74	0.0	0.0	
8,444.0	2.16	45.13	8,383.7	639.7	517.1	0.78	-0.79	-0.55	0.0	0.0	
8,529.0	1.71	44.25	8,468.7	641.8	519.1	0.52	-0.52	-1.04	0.0	0.0	
8,634.0	1.27	41.17	8,573.7	643.8	521.0	0.43	-0.42	-2.93	0.0	0.0	
8,728.0	0.97	83.48	8,668.6	645.0	522.3	0.40	-0.32	12.96	0.0	0.0	
8,824.0	0.84	58.84	8,763.8	645.9	523.5	0.16	-0.14	8.64	0.0	0.0	
8,919.0	0.53	48.47	8,858.6	646.5	524.5	0.35	-0.33	-10.92	0.0	0.0	
9,014.0	0.18	353.27	8,953.6	647.0	524.8	0.48	-0.37	-58.11	0.0	0.0	
9,108.0	0.40	265.91	9,047.6	647.1	524.4	0.46	0.23	-92.94	0.0	0.0	
9,203.0	0.44	299.13	9,142.6	647.2	523.8	0.26	0.04	34.87	0.0	0.0	
9,298.0	0.57	274.26	9,237.6	647.5	523.0	0.27	0.14	-26.18	0.0	0.0	
9,393.0	0.79	293.70	9,332.6	647.8	521.9	0.35	0.23	22.57	0.0	0.0	
9,488.0	1.41	286.91	9,427.6	648.4	520.2	0.67	0.65	-8.25	0.0	0.0	
9,582.0	0.79	170.46	9,521.6	648.1	519.2	2.02	-0.68	-123.88	0.0	0.0	
9,677.0	0.97	188.65	9,616.6	648.6	519.2	0.35	0.19	19.15	0.0	0.0	
9,772.0	1.45	209.39	9,711.6	644.8	518.5	0.68	0.51	21.83	0.0	0.0	
9,867.0	1.23	208.78	9,806.6	642.9	517.4	0.23	-0.23	-0.64	0.0	0.0	
9,962.0	1.36	218.08	9,901.6	641.1	516.2	0.28	0.14	9.60	0.0	0.0	
10,056.0	1.58	239.54	9,995.5	639.6	514.4	0.63	0.23	22.82	0.0	0.0	
10,151.0	1.63	261.51	10,090.4	638.7	512.0	0.65	0.05	23.13	0.0	0.0	



Final PVA Report

Company: EOG Resources - Midland		Local Co-ordinate Reference: IWell 8745H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference: KB = 25' @ 3348.0usft	
Site: Magnolia 15 Fed Com		MD Reference: KB = 25' @ 3348.0usft	
Well: 8745H		North Reference: Grid	
Wellbore: OH		Survey Calculation Method: Minimum Curvature	
Design: OH		Datum: EDM 5000.14	

Survey											
MD (usft)	Inc (")	Adj (grid north azim)	TVD (usft)	N/S (usft)	EW (usft)	Dleg ("/100usft)	Bulld ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
10,248.0	1.45	282.82	10,185.4	638.3	509.4	0.19	-0.18	1.48	0.0	0.0	0.0
10,341.0	0.57	81.51	10,280.4	638.3	508.7	2.13	-0.83	187.88	0.0	0.0	0.0
10,436.0	2.65	73.07	10,375.4	638.8	511.2	2.09	2.08	-8.88	0.0	0.0	0.0
10,531.0	1.58	38.71	10,470.3	640.6	514.0	1.81	-1.02	-38.17	0.0	0.0	0.0
10,628.0	1.23	36.34	10,565.3	642.4	515.5	0.37	-0.37	-2.49	0.0	0.0	0.0
10,721.0	0.88	57.81	10,660.2	643.8	518.7	0.53	-0.37	22.39	0.0	0.0	0.0
10,818.0	0.53	237.87	10,755.2	643.8	516.9	1.68	-0.37	-189.20	0.0	0.0	0.0
10,911.0	0.75	203.77	10,850.2	643.0	516.3	0.45	0.23	-35.89	0.0	0.0	0.0
11,006.0	1.27	225.39	10,945.2	641.7	515.3	0.87	0.55	22.78	0.0	0.0	0.0
11,101.0	1.63	268.78	11,040.2	640.9	513.2	1.14	0.38	43.58	0.0	0.0	0.0
11,196.0	1.38	287.18	11,135.2	641.1	510.8	0.62	-0.28	21.48	0.0	0.0	0.0
11,291.0	1.54	317.94	11,230.1	642.4	508.8	0.83	0.19	32.38	0.0	0.0	0.0
11,388.0	2.24	300.36	11,325.1	644.3	508.4	0.95	0.74	-18.51	0.0	0.0	0.0
11,481.0	2.73	269.33	11,420.0	645.2	502.5	1.48	0.52	-32.66	0.0	0.0	0.0
11,578.0	3.78	272.50	11,514.8	645.3	497.1	1.12	1.11	3.34	0.0	0.0	0.0
11,671.0	3.91	289.02	11,609.6	648.5	480.9	1.17	0.14	17.39	0.0	0.0	0.0
11,769.0	3.65	284.82	11,707.4	648.9	485.0	0.47	-0.27	5.92	0.0	0.0	0.0
11,828.0	3.16	308.16	11,788.3	650.7	481.9	1.41	-0.83	19.22	0.2	-0.4	-0.4
11,824.0	3.03	320.49	11,882.2	654.2	478.2	0.81	-0.14	14.93	0.2	0.0	0.0
12,019.0	3.85	333.23	11,957.0	658.8	475.2	1.01	0.65	13.41	0.0	0.0	3.9
12,114.0	4.09	335.16	12,051.8	664.6	472.4	0.48	0.46	2.03	-0.4	11.3	11.3
12,209.0	4.18	334.55	12,148.6	670.8	469.5	0.11	0.09	-0.64	-1.8	19.3	19.3
12,304.0	4.22	335.34	12,241.3	677.1	466.8	0.07	0.04	0.83	-2.3	27.3	27.3
12,398.0	2.59	339.78	12,336.2	681.9	468.5	4.09	-1.72	67.81	28.2	15.3	15.3
12,495.0	4.82	111.68	12,432.0	682.2	471.5	4.73	2.11	74.90	19.7	-28.3	-28.3
12,551.8	5.62	162.87	12,488.8	678.7	474.4	7.83	1.75	90.08	-12.9	-30.7	-30.7

KOP (Magnolia 15 Fed Com 8745H)



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #745H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3348.0usft
Site:	Magnolia 1S Fed Com	MD Reference:	KB = 25' @ 3348.0usft
Well:	#745H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Incl (°)	Asl (grid north azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,590.0	7.82	180.92	12,528.5	674.3	474.9	7.93	5.78	47.31	-24.7	-24.8
12,685.0	21.14	193.41	12,616.3	650.9	471.7	14.20	14.02	9.99	-35.4	-25.4
12,691.0	21.92	189.18	12,623.9	648.7	471.3	15.08	13.04	-20.52	-33.4	-26.7
HL Crossing, MD=12691.0, TVD=12623.9, N/S=648.7, E/W=471.3, INC=21.92										
12,780.0	34.20	177.49	12,702.4	607.1	469.8	15.08	13.80	-13.13	-36.9	-40.3
12,875.0	36.26	172.13	12,780.0	552.6	474.8	3.91	2.17	-5.64	-34.2	-48.1
12,953.1	48.58	173.26	12,837.5	500.4	481.4	15.81	15.78	1.45	-30.0	-48.8
ETP (Magnolia 1S Fed Com #745H)										
12,970.0	51.25	173.45	12,848.4	487.8	482.9	15.81	16.78	1.11	-29.5	-47.1
13,085.0	65.10	172.39	12,898.4	407.7	492.9	14.81	14.58	-1.12	-27.2	-49.3
13,160.0	60.62	165.54	12,828.3	319.0	510.4	17.72	16.34	-7.21	-28.8	-45.5
13,255.0	82.99	164.13	12,939.9	228.2	535.0	2.90	2.49	-1.48	-28.8	-34.1
13,350.0	86.55	165.62	12,948.5	136.9	539.7	4.06	3.75	1.57	-18.9	-19.8
13,445.0	91.21	168.70	12,950.4	44.3	580.8	5.88	4.91	3.24	-17.5	-3.2
13,542.0	91.60	176.43	12,948.0	-51.8	593.3	7.98	0.40	7.97	-20.3	8.5
13,637.0	91.98	176.61	12,945.0	-148.5	589.1	0.42	0.38	0.19	-23.7	13.6
13,732.0	90.15	179.88	12,943.3	-241.5	602.0	3.92	-1.91	3.42	-25.9	15.8
13,827.0	90.51	179.77	12,942.7	-338.5	602.3	0.39	0.38	-0.09	-28.8	15.4
13,922.0	88.88	175.56	12,945.1	-431.3	608.2	5.99	-4.03	-4.43	-25.0	18.5
14,017.0	87.60	178.46	12,943.8	-526.0	611.2	3.20	0.97	3.05	-20.6	22.8
14,112.0	90.20	180.92	12,851.6	-621.0	611.7	3.77	2.74	2.59	-19.3	22.6
14,207.0	89.32	180.21	12,852.0	-716.0	610.7	1.19	-0.93	-0.75	-18.3	20.9
14,302.0	91.78	180.57	12,851.1	-811.0	610.1	2.62	2.59	0.38	-20.8	19.5
14,397.0	93.05	181.71	12,947.1	-903.9	608.2	1.80	1.34	1.20	-25.1	16.9
14,492.0	90.50	183.03	12,844.2	-1,000.8	604.3	3.02	-2.68	1.39	-28.5	12.3
14,587.0	90.20	181.97	12,943.8	-1,095.7	600.1	1.16	-0.32	-1.12	-29.5	7.4
14,682.0	89.88	183.39	12,843.4	-1,190.6	585.7	1.50	-0.23	1.48	-30.1	2.3



Final PVA Report

Company: EOG Resources - Midland		Local Co-ordinate Reference:		Well 0745H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference:		KB = 25' @ 3348.0ush	
Site: Magnolia 15 Fed Com		MD Reference:		KB = 25' @ 3348.0ush	
Well: 0745H		North Reference:		Grid	
Wellbore: OH		Survey Calculation Method:		Minimum Curvature	
Design: OH		Database:		EDM 5000.14	

Survey											
MD (ush)	Inc (°)	Azi (grid north azim)	TVD (ush)	N/S (ush)	E/W (ush)	Dleg (°/100ush)	Buile (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
14,777.0	92.22	184.43	12,941.6	-1,283.3	589.2	2.60	2.36	1.11	-32.3	-4.9	
14,872.0	90.51	184.26	12,939.4	-1,380.0	582.0	1.81	-1.80	-0.18	-35.0	-12.8	
14,868.0	90.37	180.74	12,838.6	-1,473.9	577.9	3.75	-0.15	-3.74	-36.2	-17.6	
15,061.0	88.70	180.39	12,839.4	-1,568.9	577.0	1.80	-1.76	-0.37	-35.8	-19.3	
15,156.0	86.42	178.90	12,843.5	-1,663.8	577.6	2.67	-2.40	-1.57	-32.2	-19.4	
15,251.0	86.07	179.51	12,849.7	-1,758.8	578.9	0.74	-0.37	0.84	-28.4	-18.8	
15,345.0	85.80	179.25	12,856.3	-1,852.3	579.9	0.40	-0.29	-0.28	-20.2	-18.5	
15,440.0	83.78	178.10	12,865.0	-1,948.9	582.1	2.44	-2.13	-1.21	-11.9	-17.1	
15,448.8	84.09	178.09	12,863.9	-1,953.4	582.4	3.81	3.61	-0.08	-11.1	-18.8	
TOT 1 (Magnolia 15 Fed Com 0745H)											
15,535.0	87.21	178.02	12,972.4	-2,041.5	585.3	3.81	3.81	-0.08	-4.7	-14.5	
15,630.0	89.71	178.28	12,976.0	-2,136.4	590.0	3.22	2.83	-1.85	-2.3	-10.5	
15,725.0	91.08	178.43	12,974.3	-2,231.2	596.1	1.45	1.44	0.18	-3.1	-5.2	
15,820.0	90.59	177.05	12,972.8	-2,326.0	601.5	0.83	-0.52	0.65	-4.8	-0.5	
15,915.0	90.90	178.28	12,971.7	-2,420.8	607.0	0.89	0.33	-0.83	-6.0	4.3	
16,010.0	90.46	178.32	12,970.6	-2,515.7	613.0	0.54	-0.46	0.27	-7.3	8.6	
16,105.0	89.58	175.82	12,970.5	-2,610.4	619.4	1.18	-0.93	-0.74	-7.5	15.2	
16,200.0	89.19	178.32	12,971.6	-2,705.2	625.7	0.84	-0.41	0.74	-8.6	20.8	
16,295.0	88.18	177.23	12,973.7	-2,800.1	630.9	1.30	-1.06	0.75	-4.6	25.3	
16,389.0	87.56	179.77	12,977.2	-2,893.9	633.4	2.78	-0.66	2.70	-1.2	27.0	
16,484.0	86.20	179.42	12,982.4	-2,988.8	634.0	1.48	-1.43	-0.37	3.8	27.0	
16,579.0	83.32	182.06	12,982.8	-3,083.7	632.8	7.89	7.49	2.78	4.0	25.0	
16,674.0	89.83	180.83	12,980.1	-3,178.6	630.4	3.80	-3.57	-1.28	1.3	21.8	
16,769.0	89.05	181.82	12,981.0	-3,273.6	628.4	1.24	-0.93	0.83	2.0	19.2	
16,864.0	89.41	181.09	12,982.2	-3,368.6	626.1	0.67	0.38	-0.56	3.1	16.2	
16,959.0	89.27	181.18	12,983.3	-3,463.6	624.2	0.18	-0.15	0.09	4.1	13.6	
17,054.0	89.23	181.60	12,984.6	-3,558.3	621.8	0.65	-0.04	0.65	5.2	10.4	



Final PVA Report

Company:	EOG Resources - Midland	Local Coordinate Reference:	Well #745H							
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3348.0usft							
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3348.0usft							
Well:	#745H	North Reference:	Grid							
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature							
Design:	OH	Database:	EDM 5000.14							
Survey										
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	BuId (°/100usft)	Tura (°/100usft)	High to Plan (usft)	Right to Plan (usft)
17,148.0	89.58	178.28	12,985.5	-3,652.5	621.7	3.78	0.37	-3.74	6.0	9.8
17,243.0	91.30	179.68	12,984.8	-3,747.5	623.4	2.33	1.81	1.47	5.1	10.6
17,338.0	92.31	179.60	12,981.8	-3,842.4	624.0	1.07	1.08	-0.08	2.0	10.5
17,433.0	94.11	179.89	12,978.5	-3,937.3	624.6	1.90	1.89	0.09	-3.5	10.3
17,456.2	94.10	179.78	12,974.8	-3,960.4	624.7	0.37	-0.04	0.37	-5.1	10.3
TOT 2 (Magnolia 15 Fed Com #745H)										
17,528.0	94.07	180.04	12,969.7	-4,032.0	624.8	0.37	-0.04	0.37	-10.3	9.8
17,623.0	95.08	179.60	12,962.2	-4,128.7	625.1	1.16	1.08	-0.48	-18.0	9.4
17,718.0	96.59	178.90	12,957.5	-4,221.6	626.3	4.78	-4.73	-0.74	-22.8	9.9
17,813.0	99.41	183.29	12,957.5	-4,316.5	624.5	4.78	-1.24	4.62	-22.9	7.4
17,808.0	88.13	182.84	12,959.5	-4,411.4	619.4	1.40	-1.35	-0.37	-21.0	1.5
18,003.0	89.58	183.11	12,961.4	-4,508.2	614.4	1.54	1.53	0.18	-19.2	-4.2
18,097.0	89.10	183.47	12,982.5	-4,600.0	609.0	0.64	-0.51	0.38	-18.2	-10.3
18,192.0	87.82	182.41	12,985.0	-4,694.9	604.1	1.75	-1.35	-1.12	-15.7	-15.9
18,287.0	88.51	183.28	12,969.7	-4,788.6	599.4	1.68	-1.38	0.93	-11.2	-21.3
18,404.0	92.04	179.25	12,971.2	-4,908.5	596.8	5.85	4.73	-3.45	-8.7	-24.8
18,499.0	92.13	179.60	12,967.8	-5,001.5	597.7	0.38	0.09	0.37	-13.3	-24.8
18,595.0	92.48	181.08	12,963.8	-5,097.4	597.2	1.59	0.38	1.55	-17.2	-25.9
18,689.0	92.70	181.27	12,959.6	-5,191.3	595.2	0.30	0.23	0.19	-21.5	-28.6
18,784.0	88.15	179.77	12,960.6	-5,286.2	594.4	7.07	-8.89	-1.58	-20.7	-30.2
18,880.0	88.11	178.88	12,987.1	-5,382.0	595.4	0.82	-0.04	-0.62	-14.3	-28.6
18,975.0	89.05	177.75	12,971.1	-5,478.8	598.1	3.35	3.69	-1.29	-10.4	-27.8
19,070.0	87.74	178.28	12,973.7	-5,571.7	603.1	2.09	-1.38	-1.57	-7.8	-23.6
19,165.0	91.03	178.83	12,974.8	-5,668.8	607.3	4.27	3.48	2.49	-6.9	-20.1
19,260.0	92.57	177.75	12,971.8	-5,761.5	610.3	1.87	1.82	-0.93	-10.0	-17.8
19,355.0	91.59	177.23	12,968.3	-5,858.3	614.5	1.08	-0.93	-0.55	-13.8	-14.4
19,450.0	89.80	178.79	12,967.0	-5,951.2	619.4	2.04	-1.99	-0.48	-15.0	-10.1



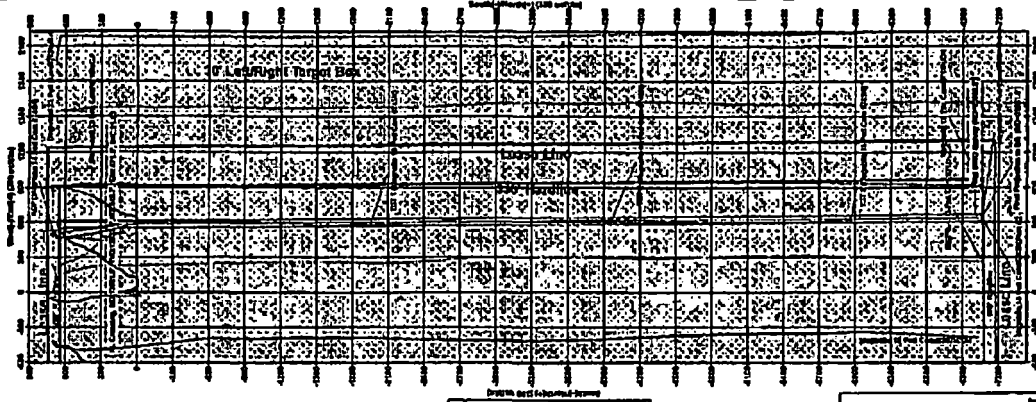
Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #745H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3348.0ush
Site:	Magnolia 15 Fed Com	MD Reference:	KB = 25' @ 3348.0ush
Well:	#745H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

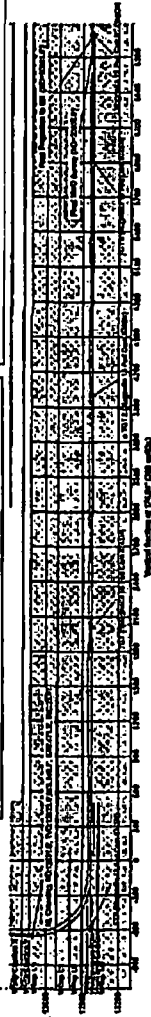
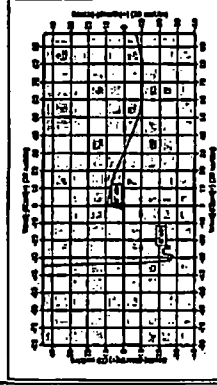
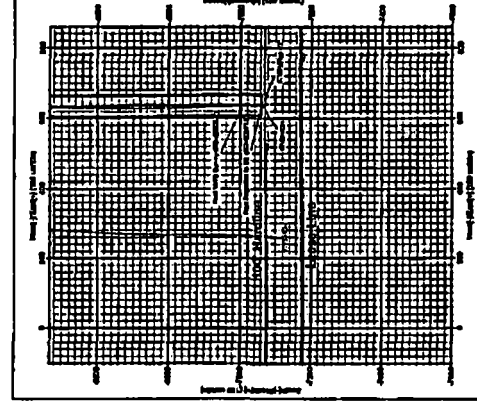
MD (ush)	Inc (")	Asl (grid north azim)	TVD (ush)	N/S (ush)	E/W (ush)	OLeg (°/100ush)	Bulld (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)
19,467.0	89.70	178.81	12,967.1	-3,988.1	620.4	0.85	-0.60	0.74	-14.9	-9.3
TOT 3 (Magnolia 15 Fed Com #745H)										
19,645.0	89.23	177.49	12,967.8	-6,048.0	624.2	0.85	-0.60	0.74	-14.4	-6.1
19,639.0	88.32	178.88	12,969.0	-6,140.0	627.1	1.59	0.10	1.59	-13.5	-3.9
19,734.0	90.77	178.63	12,968.9	-6,235.0	629.0	1.57	1.53	-0.37	-13.8	-2.7
19,830.0	92.70	178.63	12,968.0	-6,330.9	631.3	2.01	2.01	0.00	-17.0	-1.1
19,924.0	88.13	180.74	12,965.3	-6,424.8	631.8	5.35	-4.88	2.24	-17.9	-1.3
20,019.0	87.43	181.09	12,969.0	-6,519.9	630.3	0.82	-0.74	0.37	-14.5	-3.5
20,114.0	89.63	180.83	12,971.5	-6,614.7	628.7	2.33	2.32	-0.27	-12.3	-5.9
20,208.0	84.97	178.77	12,975.9	-6,708.6	628.2	5.08	-4.96	-1.13	-8.1	-7.1
20,303.0	88.46	178.98	12,983.0	-6,803.3	629.3	1.77	1.57	-0.83	-1.3	-8.8
20,398.0	88.48	177.23	12,987.2	-6,898.2	632.4	2.81	2.13	-1.84	2.6	-4.3
20,493.0	92.13	177.40	12,986.7	-6,993.0	636.9	3.85	3.84	0.18	1.9	-0.8
20,508.0	92.40	177.49	12,986.1	-7,008.0	637.5	1.80	1.80	0.60	1.2	0.0
Final MWD Survey (MD=20508.0)										
20,561.0	92.40	177.49	12,983.9	-7,060.9	639.9	0.00	0.00	0.00	-1.1	1.9
Final Projection to BH (MD=20561.0) - PBHL (Magnolia 15 Fed Com #745H)										

Design Annotations				
Measured Depth (ush)	Vertical Depth (ush)	Local Coordinates		Comment
		+N/S (ush)	+E/W (ush)	
12,891.0	12,823.9	648.7	471.3	HL Crossing, MD:12691.0, TVD:12623.9, N/S:648.7, E/W:471.3, INC:21.92
20,508.0	12,986.1	-7,008.0	637.5	Final MWD Survey (MD=20508.0)
20,561.0	12,983.9	-7,060.9	639.9	Final Projection to BH (MD=20561.0)

Checked By: _____ Approved By: _____ Date: _____



WELL DETAILS: #104	1207.0				
	05 12 37	@ 3.00/HR			
	Hourly	Flow	Latitude	Longitude	EN
	362316.00	21.746243 N	78257.00	127 27 25.35 W	
	0.0				
	-2.00				
	0.0				

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office

620 E. Greene St.

Carlsbad, NM 88220-6292



Notice of Change to Procedure – Please Read

To All Operators,

This is to notify you that the Bureau of Land Management (BLM) Carlsbad Field Office will no longer be supplying copies of sundries (3160-5), applications for permit to drill (APDs), or completion reports (3160-4) to the New Mexico Oil Conservation Division (NMOCD).

Effective immediately, to be in compliance with C-104 requirements, the NMOCD is requiring operators to submit a copy of any sundries, APDs, or completion reports processed by the BLM to the appropriate NMOCD office. This change will affect all BLM sundries, APDs, and completion reports in Eddy and Lea counties.

If a copy of a previously processed sundry, APD, or completion report is needed for submission to NMOCD, the Carlsbad Field Office will send a copy to the operator.

If you have any questions, please contact Jonathon Shepard (BLM) 575-234-2237.

Thank you

Note: This notice is being included in multiple communications from the BLM Carlsbad Field Office and you may receive multiple copies.