

HOBBS OCD

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Antietam 9 Fed Com

#715H

OH

Design: OH

Midland PVA

02 March, 2019



Midland PVA

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Antietam 9 Fed Com Well: #715H Wellbore: OH Design: OH		Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:		Well #715H KB = 25 @ 3442.0usft KB = 25 @ 3442.0usft 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 Antietam 9 Fed Com					
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 419,815.00 usft Easting: 774,698.00 usft Slot Radius: 13-3/16 "		Latitude: 32° 8' 6.852 N Longitude: 103° 34' 45.452 W Grid Convergence: 0.40 °	
Well #715H					
Well Position +N-S 0.0 usft +E-W 0.0 usft Position Uncertainty 0.0 usft		Northing: 418,941.00 usft Easting: 777,336.00 usft Wellhead Elevation: usft		Latitude: 32° 8' 58.020 N Longitude: 103° 34' 14.817 W Ground Level: 3,417.0 usft	
Wellbore OH					
Magnetics					
Model Name IGRF2015		Sample Date 7/15/2018		Declination (°) 6.63 Dip Angle (°) 59.98 Field Strength (nT) 47,783.32604609	
Design OH					
Audit Notes:					
Version: 1.0		Phase: ACTUAL		Title On Depth: 0.0	
Vertical Section:		Depth From (TVD) (usft) 0.0		Direction (°) 177.15	
Survey Program Date 3/2/2019					
From (usft) 147.0		To (usft) 20,083.0 Newsco MWD (OH)		Tool Name MWD Description OWSG MWD - Standard	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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)	
0.0	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0
147.0	0.90	184.30	147.0	-1.2	-0.1	0.61	0.61	0.00	-1.2	0.0	
325.0	1.70	182.60	324.9	-5.2	-0.3	0.45	0.45	-0.96	-5.2	-0.1	
508.0	1.70	189.60	507.9	-10.6	-0.9	0.11	0.00	3.83	-10.6	0.9	
695.0	1.60	191.80	694.8	-15.9	-1.9	0.06	-0.05	1.18	-15.9	1.4	
881.0	1.50	201.70	880.7	-20.7	-3.3	0.15	-0.05	5.32	-20.4	4.6	
1,069.0	1.90	200.60	1,068.6	-25.9	-5.3	0.21	0.21	-0.59	-26.1	4.1	
1,173.0	1.80	187.60	1,172.6	-29.1	-6.1	0.41	-0.10	-12.50	-29.7	-2.2	
1,330.0	2.20	25.70	1,329.5	-28.8	-5.2	2.52	0.25	-103.12	31.1	-8.3	
1,516.0	6.40	11.40	1,515.0	-15.4	-1.6	2.31	2.26	-7.69	32.6	-0.2	
1,704.0	9.80	7.90	1,701.1	10.7	2.7	1.83	1.81	-1.86	32.3	4.9	
1,891.0	12.20	15.80	1,884.6	45.5	10.3	1.51	1.28	4.22	29.4	2.8	
2,079.0	12.10	15.00	2,068.4	83.6	20.8	0.10	-0.05	-0.43	22.3	3.5	
2,266.0	12.40	14.90	2,251.2	121.9	31.0	0.16	0.16	-0.05	14.8	4.1	
2,454.0	12.60	14.20	2,434.7	161.3	41.2	0.13	0.11	-0.37	6.5	5.1	
2,642.0	13.10	14.40	2,619.0	201.8	51.6	0.27	0.27	0.11	-2.9	6.1	
2,829.0	13.40	14.00	2,800.0	243.4	62.1	0.17	0.16	-0.21	-13.7	7.0	
3,016.0	12.90	15.90	2,982.1	284.5	73.0	0.35	-0.27	1.02	-23.8	8.3	
3,203.0	11.70	19.60	3,184.8	322.4	85.1	0.77	-0.64	1.98	-30.8	9.1	
3,391.0	12.50	22.40	3,348.7	359.2	99.3	0.53	0.43	1.49	-37.5	7.9	
3,578.0	7.80	10.20	3,532.7	390.4	109.2	2.75	-2.51	-6.52	-38.6	-1.1	
3,765.0	7.20	9.10	3,718.1	414.5	113.3	0.33	-0.32	-0.59	-30.7	1.8	
3,953.0	6.60	19.40	3,804.7	436.3	118.8	0.73	-0.32	5.48	-19.7	7.4	
4,140.0	5.50	17.40	4,090.7	455.0	125.0	0.60	-0.59	-1.07	-7.1	5.6	
4,328.0	4.70	24.30	4,278.0	470.8	130.9	0.54	-0.43	3.67	9.3	2.8	
4,421.0	4.60	40.60	4,370.7	476.9	134.9	1.42	-0.11	17.53	17.0	-5.5	
4,609.0	6.40	33.30	4,557.4	494.1	147.3	2.06	2.02	-3.88	27.6	-13.9	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antelam 9 Fed Corn	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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)	
4,703.0	7.60	44.80	4,650.5	504.3	155.5	1.90	-0.85	12.23	25.7	-25.6	
4,890.0	8.00	60.30	4,835.8	519.5	175.5	1.14	0.21	8.29	16.6	-50.8	
5,077.0	8.80	44.90	5,020.8	536.1	196.9	1.27	0.43	-8.24	30.9	-63.7	
5,264.0	11.30	33.20	5,205.0	561.8	217.1	1.72	1.34	-6.28	41.8	-68.7	
5,451.0	13.50	17.20	5,387.8	587.8	233.5	2.17	1.18	-8.56	51.5	-60.6	
5,639.0	15.00	10.80	5,569.9	642.6	244.6	1.16	0.80	-3.40	43.7	-54.1	
5,826.0	14.60	5.90	5,750.7	689.8	251.6	0.70	-0.21	-2.62	32.0	-46.6	
6,014.0	13.90	359.60	5,932.9	736.0	253.8	0.90	-0.37	-3.35	21.7	-38.3	
6,201.0	14.90	352.50	6,114.0	782.3	250.5	1.08	0.53	-3.80	9.0	-23.2	
6,388.0	14.30	351.30	6,295.0	829.0	243.9	0.36	-0.32	-0.64	-8.4	-10.0	
6,575.0	14.60	351.20	6,478.1	875.1	238.8	0.16	0.16	-0.05	-25.9	3.5	
6,762.0	14.20	1.20	6,657.2	921.3	233.7	1.35	-0.21	5.35	-40.0	20.3	
6,948.0	8.60	16.30	6,839.5	957.5	238.1	3.39	-3.01	8.12	-37.3	35.6	
7,136.0	4.90	44.20	7,026.2	976.8	247.6	2.58	-1.97	14.84	-8.0	40.1	
7,324.0	2.40	55.00	7,213.8	984.8	256.4	1.37	-1.33	5.74	12.4	22.5	
7,511.0	0.40	47.00	7,400.8	987.5	260.1	1.07	-1.07	-4.28	22.8	12.6	
7,699.0	0.40	158.70	7,588.8	987.3	260.8	0.35	0.00	59.41	-4.5	-30.8	
7,886.0	0.50	266.10	7,775.8	986.6	260.3	0.39	0.05	57.43	-28.8	14.4	
7,980.0	0.30	279.00	7,869.8	986.6	259.6	0.23	-0.21	13.72	-25.5	20.6	
8,167.0	0.30	293.20	8,056.8	986.9	258.7	0.04	0.00	7.59	-20.6	28.3	
8,280.0	0.30	158.20	8,149.8	986.8	258.5	0.60	0.00	-145.16	-4.1	-33.4	
8,447.0	0.50	317.20	8,336.8	986.9	258.2	0.42	0.11	85.03	-8.5	32.8	
8,634.0	0.20	214.30	8,523.7	987.3	257.4	0.31	-0.16	-55.03	-30.2	-16.4	
8,821.0	0.80	219.90	8,710.7	986.0	256.4	0.32	0.32	2.99	-33.3	-13.3	
9,008.0	0.90	235.60	8,897.7	984.2	254.4	0.13	0.05	8.40	-38.4	-3.5	
9,194.0	1.00	206.10	9,083.7	981.9	252.4	0.27	0.05	-15.86	-34.6	-22.6	
9,382.0	0.70	235.80	9,271.7	979.8	250.8	0.28	-0.16	15.80	-43.9	-1.7	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Los County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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)	
9,570.0	1.00	101.90	9,459.7	978.8	251.4	0.83	0.16	-71.22	30.8	-31.3	
9,757.0	2.00	29.30	9,646.6	981.3	254.6	1.04	0.53	-38.82	35.3	18.5	
9,944.0	1.50	0.50	9,833.5	986.6	256.2	0.53	-0.27	-15.40	16.7	31.6	
10,131.0	1.70	1.70	10,020.5	991.8	256.3	0.11	0.11	0.64	12.1	31.3	
10,318.0	2.30	58.00	10,208.4	996.6	259.6	1.04	0.32	29.95	27.5	9.6	
10,505.0	2.20	63.30	10,394.2	1,000.2	266.0	0.12	-0.05	2.85	20.9	7.4	
10,692.0	1.10	43.20	10,581.1	1,003.1	270.4	0.66	-0.59	-10.75	12.0	12.9	
10,878.0	0.90	24.60	10,767.1	1,005.7	272.2	0.20	-0.11	-10.00	4.1	15.6	
11,067.0	1.30	306.20	10,956.1	1,008.3	271.1	0.75	0.21	-41.48	-16.8	5.7	
11,254.0	1.70	274.00	11,143.0	1,009.8	286.7	0.49	0.21	-17.22	-21.8	-5.3	
11,441.0	2.50	245.30	11,329.9	1,008.3	260.2	0.69	0.43	-15.35	-23.1	-16.4	
11,628.0	3.20	239.90	11,516.7	1,003.9	252.0	0.40	0.37	-2.89	-30.7	-18.9	
11,784.0	2.70	235.60	11,672.5	999.7	245.2	0.35	-0.32	-2.78	-37.2	-21.5	
11,933.0	0.40	120.60	11,821.4	997.4	242.7	1.94	-1.54	-77.18	38.1	-27.8	
12,027.0	4.90	146.30	11,915.3	993.9	245.2	4.83	4.79	27.34	16.1	-40.6	
12,121.0	19.30	151.60	12,007.0	976.8	254.9	15.35	15.32	5.64	-5.3	-40.2	
12,214.0	24.80	151.50	12,093.1	946.1	271.5	5.91	5.91	-0.11	-24.4	-30.8	
12,262.0	29.10	154.50	12,135.9	926.8	281.4	9.39	8.96	6.25	-32.6	-21.3	
12,308.0	32.40	158.00	12,175.4	905.2	290.8	8.16	7.17	7.61	-38.3	-10.7	
12,355.0	37.50	164.30	12,214.0	879.8	299.4	13.28	10.85	13.40	-41.6	1.6	
12,401.0	41.40	165.40	12,249.6	851.5	307.0	8.61	8.48	2.39	-42.6	10.2	
12,495.0	51.00	174.00	12,314.5	784.9	318.7	12.14	10.21	9.15	-38.0	27.1	
12,541.0	51.90	176.90	12,343.2	749.0	320.6	10.22	1.96	12.83	-31.6	31.2	
12,588.0	55.30	181.40	12,371.1	711.2	320.2	7.68	7.23	3.19	-23.5	30.9	
12,635.0	58.90	179.90	12,396.6	671.7	319.7	6.11	7.66	-3.19	-14.4	28.8	
12,682.0	71.30	184.50	12,416.4	629.3	318.0	27.83	26.38	9.79	-6.3	27.8	
12,775.0	91.40	189.20	12,430.3	538.5	307.0	22.18	21.61	5.05	-4.6	16.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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)	
12,888.0	91.40	189.10	12,428.0	448.7	292.2	0.11	0.00	-0.11	-7.0	0.7	
12,962.0	90.30	187.50	12,428.6	353.7	278.7	2.07	-1.17	-1.70	-8.4	-13.4	
13,055.0	90.20	183.00	12,428.2	261.1	270.1	4.84	-0.11	-4.84	-8.8	-22.5	
13,149.0	90.40	179.20	12,425.7	167.1	268.3	4.05	0.21	-4.04	-9.3	-24.9	
13,242.0	88.50	178.10	12,426.6	74.2	270.5	2.36	-2.04	-1.18	-8.4	-23.3	
13,336.0	89.10	178.90	12,428.6	-19.8	273.0	1.06	0.64	0.85	-8.6	-21.4	
13,429.0	88.90	178.90	12,430.2	-112.7	274.8	0.22	-0.22	0.00	-8.5	-20.2	
13,522.0	89.40	179.30	12,431.6	-205.7	276.2	0.89	0.54	0.43	-8.6	-19.4	
13,617.0	90.20	179.00	12,431.9	-300.7	277.6	0.90	0.84	-0.32	-7.8	-18.6	
13,710.0	88.10	178.90	12,433.3	-393.7	279.3	2.26	-2.26	-0.11	-7.8	-17.5	
13,804.0	88.70	181.30	12,435.9	-487.6	279.2	2.63	0.64	2.55	-8.7	-18.2	
13,898.0	87.50	178.80	12,439.0	-581.6	279.1	2.95	-1.28	-2.66	-5.1	-18.9	
13,992.0	91.30	182.30	12,440.0	-675.5	278.2	5.50	4.04	3.72	-5.4	-20.4	
14,085.0	90.40	181.70	12,438.8	-768.5	275.0	1.16	-0.97	-0.65	-7.7	-24.2	
14,179.0	90.50	180.60	12,437.9	-862.4	273.1	1.18	0.11	-1.17	-9.4	-26.7	
14,272.0	88.40	178.50	12,438.8	-955.4	273.8	3.19	-2.26	-2.26	-9.5	-26.6	
14,366.0	90.20	179.70	12,440.0	-1,049.4	275.3	2.30	1.91	1.28	-9.3	-25.7	
14,460.0	87.20	176.70	12,442.1	-1,143.3	278.2	4.51	-3.19	-3.19	-8.1	-23.3	
14,553.0	87.30	177.70	12,446.5	-1,236.1	282.8	1.08	0.11	1.08	-4.6	-19.4	
14,647.0	87.50	178.00	12,450.8	-1,329.9	288.3	0.38	0.21	0.32	-1.3	-16.4	
14,740.0	90.40	178.40	12,452.5	-1,422.9	289.2	3.15	3.12	0.43	-0.6	-14.1	
14,834.0	87.00	179.10	12,454.6	-1,516.8	291.3	3.69	-3.62	0.74	0.6	-12.7	
14,928.0	87.40	179.20	12,459.2	-1,610.7	292.6	0.44	0.43	0.11	4.2	-11.9	
15,021.0	91.20	178.10	12,460.4	-1,703.6	294.8	4.25	4.09	-1.18	4.4	-10.3	
15,115.0	91.10	177.70	12,458.5	-1,797.5	298.3	0.44	-0.11	-0.43	1.6	-7.4	
15,208.0	92.90	179.50	12,455.2	-1,890.4	300.6	2.74	1.94	1.94	-2.6	-5.7	
15,301.0	89.10	178.70	12,453.6	-1,983.4	302.0	4.16	-4.09	-0.88	-5.2	-4.8	



Midland PVA

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Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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15,395.0	88.90	178.90	12,455.3	-2,077.4	304.0	0.30	-0.21	0.21	-4.5	-3.5	
15,488.0	89.50	178.10	12,456.8	-2,170.3	306.4	1.08	0.65	-0.86	-4.2	-1.6	
15,582.0	89.10	178.20	12,457.7	-2,264.3	309.5	0.44	-0.43	0.11	-4.0	0.8	
15,675.0	88.50	178.50	12,459.7	-2,357.2	312.1	0.72	-0.65	0.32	-3.0	2.9	
15,768.0	87.30	179.30	12,463.1	-2,450.1	313.9	1.55	-1.29	0.86	-0.5	4.1	
15,861.0	86.40	179.40	12,468.2	-2,543.0	315.0	0.97	-0.97	0.11	3.6	4.6	
15,954.0	88.00	178.80	12,472.7	-2,635.9	316.4	1.84	1.72	-0.65	7.1	5.5	
16,047.0	89.90	179.50	12,474.4	-2,728.8	317.8	2.18	2.04	0.75	7.5	6.2	
16,141.0	89.50	179.10	12,474.9	-2,822.8	319.0	0.60	-0.43	-0.43	6.7	6.8	
16,234.0	93.00	180.70	12,472.9	-2,915.8	319.1	4.14	3.76	1.72	3.3	6.4	
16,328.0	92.40	181.70	12,468.5	-3,009.6	317.1	1.24	-0.64	1.06	-2.4	3.8	
16,421.0	90.20	181.40	12,466.3	-3,102.6	314.6	2.39	-2.37	-0.32	-5.8	0.7	
16,515.0	89.90	181.20	12,466.3	-3,196.6	312.5	0.38	-0.32	-0.21	-7.2	-2.0	
16,608.0	88.70	180.10	12,467.4	-3,289.5	311.4	1.75	-1.29	-1.18	-7.3	-3.8	
16,702.0	91.90	181.40	12,466.9	-3,383.5	310.2	3.67	3.40	1.38	-9.1	-5.5	
16,796.0	88.70	181.70	12,468.4	-3,477.5	307.7	3.42	-3.40	0.32	-10.9	-8.6	
16,890.0	88.60	182.10	12,468.6	-3,571.4	304.6	0.44	-0.11	0.43	-10.0	-12.3	
16,983.0	87.60	182.10	12,471.7	-3,664.3	301.2	1.08	-1.08	0.00	-8.2	-16.3	
17,077.0	87.30	179.50	12,475.9	-3,758.2	299.8	2.78	-0.32	-2.77	-5.3	-18.2	
17,171.0	88.80	178.40	12,479.1	-3,852.1	301.6	1.98	1.60	-1.17	-3.4	-17.1	
17,264.0	90.00	179.90	12,480.1	-3,945.1	302.9	2.07	1.29	1.61	-3.8	-16.3	
17,358.0	89.40	179.20	12,480.6	-4,039.1	303.7	0.98	-0.64	-0.74	-4.6	-16.1	
17,452.0	89.30	179.30	12,481.6	-4,133.1	304.9	0.15	-0.11	0.11	-4.5	-15.5	
17,546.0	89.10	179.40	12,482.9	-4,227.0	306.0	0.24	-0.21	0.11	-4.1	-15.0	
17,639.0	88.70	178.60	12,484.7	-4,320.0	307.6	0.96	-0.43	-0.86	-3.3	-14.0	
17,733.0	89.80	177.90	12,486.0	-4,414.0	310.5	1.39	1.17	-0.74	-3.0	-11.7	
17,826.0	87.80	176.10	12,487.9	-4,506.8	315.3	2.89	-2.15	-1.94	-2.0	-7.4	



Midland PVA

Company:	Eog Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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)	DLog (°/100usft)	Bolid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
17,919.0	88.10	173.10	12,491.2	-4,599.3	324.1	3.24	0.32	-3.23	0.4	0.7
18,013.0	92.40	171.70	12,490.8	-4,692.5	338.5	4.81	4.57	-1.49	-0.9	12.6
18,107.0	93.10	171.60	12,486.3	-4,785.4	350.1	0.75	0.74	-0.11	-6.3	25.6
18,220.0	93.00	175.80	12,480.3	-4,897.5	362.5	3.71	-0.09	3.72	-13.5	37.3
18,313.0	91.90	181.30	12,476.3	-4,990.3	364.9	6.03	-1.18	5.91	-18.6	39.0
18,407.0	90.40	183.70	12,474.4	-5,084.2	360.8	3.01	-1.60	2.55	-21.0	34.3
18,500.0	87.90	184.60	12,475.8	-5,177.0	354.0	2.86	-2.69	0.97	-19.9	27.0
18,594.0	89.80	185.30	12,477.7	-5,270.8	345.9	2.15	2.02	0.74	-18.4	18.3
18,688.0	88.70	182.80	12,478.9	-5,364.3	339.3	2.91	-1.17	-2.66	-17.5	11.1
18,781.0	88.50	182.40	12,481.2	-5,457.2	335.1	0.48	-0.22	-0.43	-16.6	6.3
18,875.0	89.70	182.80	12,482.7	-5,551.1	330.8	1.35	1.28	0.43	-14.5	1.4
18,969.0	90.20	179.20	12,482.8	-5,645.1	329.2	3.87	0.53	-3.83	-14.8	-0.8
19,063.0	91.90	179.80	12,481.0	-5,739.0	330.0	1.92	1.81	0.64	-16.9	-0.6
19,157.0	90.00	179.90	12,479.5	-5,833.0	330.2	2.02	-2.02	0.11	-16.8	-0.9
19,250.0	86.00	176.40	12,482.7	-5,925.9	333.2	5.71	-4.30	-3.76	-16.0	1.5
19,344.0	89.50	176.60	12,486.4	-6,019.6	339.0	3.73	3.72	0.21	-12.6	6.6
19,440.0	91.30	176.30	12,485.7	-6,115.4	344.9	1.90	1.87	-0.31	-13.3	12.0
19,534.0	89.40	180.00	12,485.2	-6,209.4	347.9	4.42	-2.02	3.94	-13.8	14.4
19,628.0	88.90	180.60	12,486.6	-6,303.4	347.5	0.83	-0.53	0.64	-12.4	13.3
19,720.0	88.80	180.60	12,486.4	-6,395.3	346.5	0.11	-0.11	0.00	-10.6	11.8
19,814.0	90.60	181.30	12,488.9	-6,489.3	344.9	2.05	1.91	0.74	-10.1	9.6
19,907.0	91.30	181.70	12,487.4	-6,582.3	342.5	0.87	0.75	0.43	-11.6	6.6
20,001.0	90.60	182.40	12,485.8	-6,676.2	339.1	1.05	-0.74	0.74	-13.2	2.7
20,025.0	90.60	182.10	12,485.5	-6,700.2	338.2	1.25	0.00	-1.25	-13.5	1.6
20,083.0	90.60	182.10	12,484.9	-6,758.1	336.1	0.00	0.00	0.00	-14.1	-0.9



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #715H
Project:	Los County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3442.0usft
Site:	Antietam 9 Fed Corn	MD Reference:	KB = 25 @ 3442.0usft
Well:	#715H	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
		+N-S (usft)	+E-W (usft)	
11,997.0	11,885.4	995.7	244.0	KOP, MD:11997.0', TVD:11885.4', N/S:995.7', E/W:244.0', INC:3.45
12,195.0	12,075.8	953.0	287.8	FTP Crossing, MD:12195.0', TVD:12075.8', N/S:953.0', E/W:287.8', INC:23.68
20,025.0	12,485.5	-8,700.2	338.2	Last MWD Survey (MD=20025.0')
20,083.0	12,484.9	-8,758.1	338.1	Projection to Bit (MD=20083.0')

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

Antietam 9 Fed Com #715H

Plan #2

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: #715H

KB = 25 @ 3442.0usft 3417.0
Northing 418941.00 Easting 777335.00 Latitude 32° 6' 58.020 N Longitude 103° 34' 14.817 W

To convert a Magnetic Direction to a Grid Direction, Add 6.43°
To convert a Magnetic Direction to a True Direction, Add 6.83° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

Sp	MD	Inc	Azi	TVD	+N-S	+E-W	Dlog	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1698.8	9.98	16.02	1698.3	41.6	12.0	2.00	16.02	-41.0	
4	7222.8	9.98	16.02	7138.7	981.4	276.0	0.00	0.00	-948.4	
5	7721.5	0.00	0.00	7633.0	1003.0	288.0	2.00	180.00	-987.4	
6	12048.0	0.00	0.00	11957.6	1003.0	288.0	0.00	0.00	-987.4	
7	12796.0	90.00	179.64	12435.0	525.8	291.0	12.00	179.64	-510.4	
8	13306.9	90.00	179.64	12435.0	14.7	294.2	0.00	0.00	0.0	TGT#1(Antietam 9 Fed Com #715H)
9	13346.9	89.09	179.63	12435.3	-27.3	294.5	2.16	-179.63	41.9	TGT#2(Antietam 9 Fed Com #715H)
10	13957.8	89.09	179.63	12445.0	-635.9	298.3	0.00	0.00	650.0	TGT#3(Antietam 9 Fed Com #715H)
11	13973.8	89.41	179.64	12445.2	-652.1	298.4	2.00	0.64	666.2	TGT#4(Antietam 9 Fed Com #715H)
12	15909.8	89.41	179.64	12465.0	-2587.7	310.7	0.00	0.00	2600.0	TGT#5(Antietam 9 Fed Com #715H)
13	15920.0	89.20	179.64	12465.1	-2588.2	310.7	2.00	-180.00	2610.4	TGT#6(Antietam 9 Fed Com #715H)
14	17351.1	89.20	179.64	12485.0	-4029.1	319.8	0.00	0.00	4040.0	TGT#7(Antietam 9 Fed Com #715H)
15	17381.6	89.41	179.64	12485.1	-4039.6	319.8	2.00	0.00	4050.5	TGT#8(Antietam 9 Fed Com #715H)
16	18327.1	89.41	179.64	12495.0	-5005.0	325.9	0.00	0.00	5015.0	TGT#9(Antietam 9 Fed Com #715H)
17	18345.1	89.77	179.64	12495.1	-5023.0	326.0	2.00	0.00	5033.0	TGT#10(Antietam 9 Fed Com #715H)
18	19328.0	89.77	179.64	12499.0	-8005.9	332.2	0.00	0.00	8015.0	TGT#11(Antietam 9 Fed Com #715H)
19	19339.4	90.00	179.64	12499.0	-8017.3	332.3	2.00	0.00	8026.4	TGT#12(Antietam 9 Fed Com #715H)
20	20081.1	90.00	179.64	12499.0	-8759.0	337.0	0.00	0.00	8767.4	PRHL (Antietam 9 Fed Com #715H)

CASING DETAILS

No casing data is available

WELLS TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
TGT#1(Antietam 9 Fed Com #715H)	12435.0	14.7	294.2	418938.70	777332.20
TGT#2(Antietam 9 Fed Com #715H)	12445.0	-435.9	298.3	418305.10	777328.35
TGT#3(Antietam 9 Fed Com #715H)	12465.0	-2587.7	310.7	416333.30	777648.67
TGT#4(Antietam 9 Fed Com #715H)	12465.0	-4029.1	319.8	416191.80	777537.77
TGT#5(Antietam 9 Fed Com #715H)	12485.0	-5005.0	325.9	415338.00	777683.83
TGT#6(Antietam 9 Fed Com #715H)	12485.0	-5005.9	332.2	415335.10	777676.26
PRHL (Antietam 9 Fed Com #715H)	12499.0	-8759.0	337.0	415162.00	777576.00
Brushy Top(Antietam 9 Fed Com #715H)	7818.0	1003.0	288.0	418944.00	777626.00
FTP (Antietam 9 Fed Com #715H)	15435.0	853.0	288.0	418944.00	777626.00
Interp @ 12401.8 (715H CH landing projection)	12401.8	631.6	333.1	418972.47	777671.13

