



EOG Resources - Midland

Eddy County, NM (NAD 83 NME)

Golden Graham 1 State Com

#701H

OH

Design: OH

Midland PVA

22 December, 2018



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 2965.0usft
Site:	Golden Graham 1 State Com	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project:	Eddy 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:	Golden Graham 1 State Com				
Site Position:		Northing:	387,494.00 usft	Latitude:	32° 3' 53.919 N
From:	Map	Easting:	630,031.00 usft	Longitude:	104° 2' 49.246 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.15 °

Well:		#701H				
Well Position	+N-S	0.0 usft	Northing:	387,494.00 usft	Latitude:	32° 3' 53.919 N
	+E-W	0.0 usft	Easting:	630,031.00 usft	Longitude:	104° 2' 49.246 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	2,940.0 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/11/2018	7.02	59.82	47,861.44111013

Design					OH						
Audit Notes:											
Version:		1.0		Phase:		ACTUAL		Tie On Depth:		0.0	
Vertical Section:		Depth From (TVD) (usft)		+N-S (usft)		+E-W (usft)		Direction (°)			
		0.0		0.0		0.0		358.02			

Survey Program	Date 12/22/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
172.0	19,649.0	Dritech MWD (OH)	MWD	OWSG MWD - Standard



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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	0.0	0.0	0.0
172.0	0.88	308.76	172.0	0.8	-1.0	0.51	0.51	0.00	-1.3	0.0	
260.0	0.97	312.98	260.0	1.8	-2.1	0.13	0.10	4.80	-2.7	0.1	
347.0	0.97	314.13	347.0	2.8	-3.2	0.02	0.00	1.32	-4.2	0.2	
435.0	1.23	320.98	435.0	4.0	-4.3	0.33	0.30	7.78	-5.8	0.8	
512.0	1.06	316.94	511.9	5.2	-5.3	0.24	-0.22	-5.25	-7.4	0.3	
591.0	0.62	311.76	590.9	6.0	-6.1	0.56	-0.56	-6.56	-8.6	-0.4	
690.0	0.70	307.63	689.9	6.7	-7.0	0.09	0.08	-4.17	-9.7	-1.1	
785.0	1.76	261.40	784.9	6.9	-8.9	1.44	1.12	-48.66	-7.8	-8.1	
879.0	2.20	250.68	878.8	6.1	-12.0	0.61	0.47	-11.40	-9.3	-9.7	
974.0	1.65	262.37	973.8	5.2	-15.3	0.57	-0.37	12.31	-14.4	-7.2	
1,069.0	3.78	258.15	1,068.7	4.4	-19.9	2.04	2.03	-4.44	-18.5	-8.4	
1,163.0	4.84	257.53	1,162.4	2.9	-26.8	1.13	1.13	-0.66	-24.8	-8.8	
1,258.0	5.19	244.35	1,257.0	0.2	-34.6	1.26	0.37	-13.87	-26.7	-15.0	
1,352.0	5.19	240.40	1,350.7	-3.8	-42.1	0.38	0.00	-4.20	-27.4	-16.5	
1,446.0	5.72	246.28	1,444.2	-7.7	-50.1	0.82	0.56	6.26	-28.0	-13.2	
1,541.0	6.16	250.59	1,538.7	-11.3	-59.2	0.66	0.46	4.54	-27.2	-11.7	
1,635.0	5.80	249.71	1,632.2	-14.7	-68.4	0.40	-0.38	-0.94	-25.4	-13.0	
1,730.0	5.80	247.78	1,726.7	-18.1	-77.4	0.21	0.00	-2.03	-23.0	-14.4	
1,825.0	5.80	246.90	1,821.2	-21.8	-86.2	0.09	0.00	-0.93	-20.9	-15.0	
1,920.0	5.19	251.21	1,915.8	-25.1	-94.7	0.77	-0.64	4.54	-19.5	-14.1	
2,015.0	4.57	238.73	2,010.5	-28.5	-102.0	1.29	-0.65	-13.14	-12.5	-17.5	
2,109.0	5.89	232.22	2,104.1	-33.4	-109.0	1.54	1.40	-6.93	-7.9	-16.5	
2,202.0	6.07	229.41	2,196.6	-39.5	-116.5	0.37	0.19	-3.02	-5.9	-13.9	
2,297.0	5.45	222.47	2,291.1	-46.1	-123.4	0.98	-0.65	-7.31	-3.1	-10.6	
2,391.0	6.07	218.16	2,384.6	-53.3	-129.5	0.80	0.66	-4.59	-1.6	-5.8	
2,486.0	6.77	220.71	2,479.0	-61.5	-136.2	0.80	0.74	2.68	-2.0	-0.6	



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Well:	#701H	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)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
2,536.0	7.47	230.38	2,528.6	-65.8	-140.7	2.77	1.40	19.34	-2.4	1.9
2,655.0	6.60	232.66	2,646.7	-74.9	-152.1	0.77	-0.73	1.92	-2.8	5.6
2,750.0	6.24	234.16	2,741.1	-81.2	-160.6	0.42	-0.38	1.58	-2.0	8.1
2,844.0	6.07	234.24	2,834.6	-87.1	-168.8	0.18	-0.18	0.09	-0.9	10.4
2,939.0	6.77	246.64	2,929.0	-92.2	-178.0	1.63	0.74	13.05	2.4	11.3
3,034.0	6.86	246.99	3,023.3	-96.7	-188.3	0.10	0.09	0.37	2.7	11.1
3,129.0	6.51	245.58	3,117.7	-101.1	-198.5	0.41	-0.37	-1.48	2.9	11.0
3,223.0	6.42	244.44	3,211.1	-105.6	-208.1	0.17	-0.10	-1.21	3.6	11.3
3,318.0	5.98	244.09	3,305.5	-110.0	-217.3	0.46	-0.46	-0.37	4.8	11.6
3,413.0	7.12	248.31	3,399.9	-114.4	-227.2	1.30	1.20	4.44	6.3	11.1
3,508.0	6.60	249.36	3,494.2	-118.5	-237.8	0.56	-0.55	1.11	6.7	10.4
3,603.0	5.98	247.87	3,588.7	-122.3	-247.5	0.67	-0.65	-1.57	7.5	10.0
3,697.0	5.89	246.20	3,682.1	-126.1	-256.4	0.21	-0.10	-1.78	9.0	10.0
3,792.0	5.89	246.28	3,776.6	-130.0	-265.4	0.01	0.00	0.08	10.8	9.9
3,887.0	5.98	246.28	3,871.1	-133.9	-274.4	0.09	0.09	0.00	12.5	9.8
3,982.0	5.80	245.84	3,965.6	-137.9	-283.3	0.20	-0.19	-0.46	14.2	9.9
4,076.0	5.63	245.67	4,059.2	-141.7	-291.8	0.18	-0.18	-0.18	16.3	9.9
4,171.0	5.36	244.53	4,153.7	-145.6	-300.0	0.31	-0.28	-1.20	18.5	10.4
4,266.0	4.75	241.71	4,248.4	-149.3	-307.5	0.69	-0.64	-2.97	21.1	11.9
4,361.0	4.84	243.03	4,343.0	-153.0	-314.6	0.15	0.09	1.39	25.0	12.1
4,456.0	4.75	241.71	4,437.7	-156.7	-321.6	0.15	-0.09	-1.39	28.2	13.4
4,550.0	4.57	242.50	4,531.4	-160.3	-328.3	0.20	-0.19	0.84	30.0	13.6
4,645.0	3.69	247.08	4,626.1	-163.2	-334.5	0.99	-0.93	4.82	30.4	11.3
4,740.0	3.52	241.54	4,721.0	-165.8	-339.9	0.41	-0.18	-5.83	26.2	14.2
4,835.0	2.29	252.79	4,815.8	-167.8	-344.3	1.42	-1.29	11.84	24.1	9.3
4,930.0	2.02	255.60	4,910.8	-168.7	-347.7	0.31	-0.28	2.96	20.9	8.2
5,024.0	0.53	306.93	5,004.7	-168.9	-349.7	1.85	-1.59	54.61	18.0	-9.9



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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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)
5,119.0	0.53	348.68	5,099.7	-168.2	-350.1	0.40	0.00	43.95	6.1	-19.1
5,213.0	0.44	296.12	5,193.7	-167.6	-350.5	0.46	-0.10	-55.91	18.2	-7.1
5,308.0	0.44	291.72	5,288.7	-167.3	-351.2	0.04	0.00	-4.63	18.0	-5.8
5,402.0	0.44	279.95	5,382.7	-167.1	-351.9	0.10	0.00	-12.52	18.1	-2.0
5,497.0	0.35	310.53	5,477.7	-166.9	-352.4	0.24	-0.09	32.19	13.9	-10.8
5,592.0	0.53	301.57	5,572.7	-166.4	-353.0	0.20	0.19	-9.43	14.7	-8.5
5,687.0	0.35	289.35	5,667.7	-166.1	-353.7	0.21	-0.19	-12.86	15.4	-5.3
5,781.0	0.18	299.02	5,761.7	-165.9	-354.1	0.19	-0.18	10.29	13.9	-7.8
5,876.0	0.09	173.25	5,856.7	-165.9	-354.2	0.26	-0.09	-132.39	-1.8	15.7
5,971.0	0.26	168.76	5,951.7	-166.2	-354.2	0.18	0.18	-4.73	-3.3	15.5
6,065.0	0.35	206.56	6,045.7	-166.7	-354.2	0.23	0.10	40.21	6.4	14.4
6,160.0	0.35	201.90	6,140.7	-167.2	-354.5	0.03	0.00	-4.91	4.6	14.9
6,254.0	0.62	215.35	6,234.7	-167.9	-354.9	0.31	0.29	14.31	7.2	13.4
6,349.0	0.62	212.27	6,329.7	-168.8	-355.5	0.04	0.00	-3.24	5.4	13.8
6,444.0	1.23	157.16	6,424.7	-170.1	-355.3	1.07	0.64	-58.01	-9.5	11.9
6,539.0	2.11	152.07	6,519.7	-172.6	-354.1	0.94	0.93	-5.36	-13.3	10.9
6,633.0	1.32	209.02	6,613.6	-175.1	-353.8	1.89	-0.84	60.59	-0.1	18.6
6,728.0	1.49	227.12	6,708.6	-176.9	-355.3	0.50	0.18	19.05	3.4	18.0
6,823.0	1.14	232.66	6,803.6	-178.3	-356.9	0.39	-0.37	5.83	2.9	17.7
6,918.0	1.14	265.27	6,898.5	-179.0	-358.6	0.67	0.00	34.33	10.3	13.9
7,013.0	0.97	266.32	6,993.5	-179.1	-360.4	0.18	-0.18	1.11	8.8	13.7
7,108.0	0.97	280.91	7,088.5	-179.0	-362.0	0.26	0.00	15.36	10.4	11.2
7,203.0	1.41	314.93	7,183.5	-178.0	-363.6	0.86	0.46	35.81	13.0	4.0
7,297.0	1.58	326.26	7,277.5	-176.1	-365.1	0.36	0.18	12.05	11.1	1.6
7,392.0	1.23	312.47	7,372.4	-174.3	-366.5	0.51	-0.37	-14.52	8.1	3.8
7,487.0	1.32	305.70	7,467.4	-173.0	-368.2	0.18	0.09	-7.13	5.5	4.7
7,581.0	1.23	291.72	7,561.4	-172.0	-370.0	0.34	-0.10	-14.87	2.2	5.6



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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7,677.0	1.14	277.75	7,657.4	-171.5	-371.9	0.31	-0.09	-14.55	-1.2	5.7
7,771.0	0.97	247.08	7,751.4	-171.7	-373.6	0.62	-0.18	-32.63	-5.5	3.8
7,866.0	1.06	227.21	7,846.3	-172.6	-375.0	0.38	0.09	-20.92	-8.1	1.4
7,961.0	1.14	250.50	7,941.3	-173.5	-376.5	0.47	0.08	24.52	-8.7	4.9
8,055.0	1.76	274.23	8,035.3	-173.7	-378.8	0.90	0.66	25.24	-8.3	8.3
8,150.0	1.32	264.13	8,130.3	-173.7	-381.4	0.54	-0.46	-10.63	-12.1	6.5
8,245.0	1.49	260.96	8,225.2	-174.0	-383.7	0.20	0.18	-3.34	-14.8	5.8
8,340.0	1.67	253.05	8,320.2	-174.6	-386.2	0.30	0.19	-8.33	-18.1	3.5
8,435.0	1.32	266.15	8,415.2	-175.1	-388.7	0.51	-0.37	13.79	-19.2	7.8
8,528.0	1.76	352.98	8,508.1	-173.7	-389.9	2.30	0.47	93.37	5.3	20.7
8,623.0	1.58	353.42	8,603.1	-171.0	-390.2	0.19	-0.19	0.46	2.6	20.7
8,717.0	1.49	336.72	8,697.1	-168.6	-390.9	0.48	-0.10	-17.77	-5.9	20.2
8,812.0	1.58	326.53	8,792.0	-166.4	-392.1	0.30	0.09	-10.73	-11.9	18.6
8,912.0	1.49	318.27	8,892.0	-164.2	-393.7	0.24	-0.08	-8.26	-17.1	16.5
9,042.0	1.85	300.34	9,021.9	-161.9	-396.6	0.48	0.28	-13.79	-25.0	9.9
9,120.0	2.59	348.77	9,099.9	-159.6	-398.1	2.49	0.95	62.09	-11.8	26.3
KOP 9120.0 MD: 9099.9' TVD: -159.6' -398.1' 2.59										
9,137.0	2.90	354.74	9,116.9	-158.8	-398.2	2.49	1.84	35.14	-9.8	27.4
9,184.0	10.46	10.39	9,163.5	-153.4	-397.5	16.40	16.09	33.30	-5.4	29.0
9,232.0	16.62	10.39	9,210.2	-142.3	-395.5	12.83	12.83	0.00	-10.0	27.7
9,279.0	21.46	9.42	9,254.6	-127.2	-392.9	10.32	10.30	-2.06	-14.6	25.5
9,327.0	24.62	10.30	9,298.7	-108.7	-389.6	6.62	6.58	1.83	-17.1	22.8
9,374.0	31.48	8.72	9,340.2	-86.9	-386.0	14.68	14.60	-3.36	-19.6	18.9
9,422.0	36.58	7.66	9,380.0	-60.3	-382.2	10.70	10.62	-2.21	-21.9	14.8
9,469.0	40.63	6.43	9,416.7	-31.2	-378.6	8.77	8.62	-2.62	-22.8	10.8
9,517.0	45.55	4.58	9,451.7	1.4	-375.5	10.58	10.25	-3.85	-22.4	7.0
9,564.0	53.20	2.39	9,482.3	37.0	-373.4	16.65	16.28	-4.66	-22.2	4.3



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Site:	Golden Graham 1 State Com	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Bulld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
9,611.0	59.62	2.91	9,508.3	76.1	-371.6	13.69	13.66	1.11	-22.6	2.6
9,654.8	60.60	3.66	9,530.1	114.0	-369.4	2.68	2.23	1.70	-21.5	0.5
FTP Crossing 9654.8' MD; 9530.1' TVD; 114.0°; -369.4°; 60.60										
9,658.0	60.67	3.71	9,531.7	116.7	-369.2	2.68	2.24	1.69	-21.3	0.3
9,706.0	66.48	3.97	9,553.0	159.6	-366.3	12.11	12.10	0.54	-17.9	-2.7
9,753.0	73.86	3.35	9,569.0	203.7	-363.5	15.75	15.70	-1.32	-15.0	-5.6
9,800.0	77.03	3.09	9,580.8	249.1	-361.0	6.77	6.74	-0.55	-11.7	-8.2
9,847.0	81.34	2.30	9,589.6	295.2	-358.8	9.32	9.17	-1.68	-8.8	-10.4
9,895.0	88.11	2.21	9,594.0	343.0	-356.9	14.11	14.10	-0.19	-2.8	-12.2
9,989.0	90.57	359.05	9,595.1	436.9	-355.9	4.26	2.62	-3.36	-2.0	-13.1
10,084.0	89.78	358.26	9,594.8	531.9	-358.1	1.18	-0.83	-0.83	-2.5	-10.7
10,178.0	91.28	358.96	9,593.9	625.9	-360.4	1.76	1.60	0.74	-3.7	-8.2
10,273.0	88.37	0.37	9,594.2	720.8	-361.0	3.40	-3.06	1.48	-3.7	-7.5
10,368.0	89.25	1.51	9,596.2	815.8	-359.4	1.52	0.93	1.20	-2.0	-8.9
10,463.0	87.93	358.43	9,598.5	910.8	-359.4	3.53	-1.39	-3.24	0.0	-8.7
10,558.0	91.10	359.14	9,599.3	1,005.7	-361.5	3.42	3.34	0.75	0.5	-6.5
10,653.0	86.88	359.22	9,601.0	1,100.7	-362.8	4.44	-4.44	0.08	1.9	-5.0
10,747.0	92.68	3.88	9,601.4	1,194.6	-360.3	7.91	6.17	4.96	2.0	-7.4
10,843.0	87.41	2.83	9,601.3	1,290.4	-354.7	5.60	-5.49	-1.09	1.6	-12.8
10,937.0	88.81	1.68	9,604.4	1,384.3	-351.0	1.93	1.49	-1.22	4.4	-16.3
11,032.0	88.81	359.40	9,606.4	1,479.2	-350.1	2.40	0.00	-2.40	6.1	-17.1
11,127.0	88.20	357.03	9,608.9	1,574.1	-353.0	2.58	-0.64	-2.49	8.3	-13.9
11,222.0	92.86	359.66	9,608.0	1,669.1	-355.8	5.63	4.91	2.77	7.1	-11.0
11,316.0	85.65	359.14	9,609.2	1,763.0	-356.8	7.69	-7.67	-0.55	8.1	-9.9
11,410.0	86.61	358.52	9,615.5	1,856.8	-358.7	1.21	1.02	-0.66	14.1	-7.8
11,505.0	89.78	358.78	9,618.5	1,951.7	-360.9	3.35	3.34	0.27	16.8	-5.4
11,600.0	88.29	357.82	9,620.1	2,046.6	-363.7	1.87	-1.57	-1.01	18.1	-2.4



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 2965.0usft
Site:	Golden Graham 1 State Com	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
11,694.0	91.45	358.43	9,620.4	2,140.5	-366.8	3.42	3.36	0.65	18.0	0.8
11,789.0	90.48	356.85	9,618.8	2,235.4	-370.7	1.95	-1.02	-1.66	16.2	4.9
11,884.0	89.25	358.78	9,619.0	2,330.4	-374.3	2.41	-1.29	2.03	16.1	8.7
11,979.0	91.71	0.72	9,618.2	2,425.4	-374.7	3.30	2.59	2.04	15.0	9.3
12,074.0	87.49	0.98	9,618.8	2,520.3	-373.3	4.45	-4.44	0.27	15.4	8.0
12,168.0	88.72	1.60	9,622.0	2,614.2	-371.2	1.47	1.31	0.66	18.2	6.1
12,263.0	88.11	1.24	9,624.6	2,709.2	-368.9	0.75	-0.64	-0.38	20.5	3.9
12,358.0	90.66	0.01	9,625.6	2,804.2	-367.8	2.98	2.68	-1.29	21.3	3.0
12,452.0	88.81	359.40	9,626.0	2,898.1	-368.3	2.07	-1.97	-0.65	21.4	3.6
12,546.0	95.06	2.56	9,622.9	2,992.0	-366.7	7.45	6.65	3.36	17.9	2.2
12,641.0	90.75	0.54	9,618.0	3,086.8	-364.2	5.01	-4.54	-2.13	12.8	-0.2
12,736.0	88.20	358.52	9,618.9	3,181.8	-364.9	3.42	-2.68	-2.13	13.4	0.8
12,831.0	91.01	0.37	9,619.6	3,276.8	-365.9	3.54	2.96	1.95	13.8	1.8
12,925.0	85.03	357.82	9,622.8	3,370.7	-367.3	6.91	-6.36	-2.71	16.7	3.5
13,020.0	86.88	359.22	9,629.5	3,465.4	-369.8	2.44	1.95	1.47	23.1	6.1
13,115.0	94.79	359.58	9,628.1	3,560.3	-370.8	8.33	8.33	0.38	21.5	7.3
13,205.0	93.83	359.40	9,621.4	3,650.1	-371.6	1.09	-1.07	-0.20	14.4	8.2
13,300.0	88.81	0.19	9,619.2	3,745.0	-371.9	5.35	-5.28	0.83	11.9	8.7
13,394.0	88.81	359.93	9,621.1	3,839.0	-371.8	0.28	0.00	-0.28	13.6	8.8
13,489.0	88.99	1.86	9,623.0	3,933.9	-370.3	2.04	0.19	2.03	15.1	7.4
13,583.0	89.43	4.58	9,624.3	4,027.8	-365.1	2.93	0.47	2.89	16.2	2.3
13,678.0	91.01	1.42	9,623.9	4,122.6	-360.1	3.72	1.66	-3.33	15.8	-2.5
13,772.0	90.75	0.81	9,622.4	4,216.6	-358.3	0.71	-0.28	-0.65	14.3	-4.1
13,867.0	88.11	1.07	9,623.4	4,311.6	-356.7	2.79	-2.78	0.27	15.2	-5.5
13,961.0	88.29	0.63	9,626.3	4,405.5	-355.3	0.51	0.19	-0.47	18.1	-6.8
14,056.0	90.22	1.77	9,627.6	4,500.5	-353.3	2.36	2.03	1.20	19.3	-8.6
14,151.0	90.75	2.74	9,626.8	4,595.4	-349.6	1.16	0.56	1.02	18.5	-12.1



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 2985.0usft
Site:	Golden Graham 1 State Com.	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
14,245.0	89.96	2.12	9,626.2	4,689.3	-345.6	1.07	-0.84	-0.66	17.8	-16.0
14,339.0	88.72	0.63	9,627.3	4,783.3	-343.3	2.06	-1.32	-1.59	18.9	-18.1
14,433.0	88.99	0.45	9,629.2	4,877.3	-342.4	0.35	0.29	-0.19	20.7	-18.8
14,528.0	89.16	1.51	9,630.7	4,972.2	-340.8	1.13	0.18	1.12	22.2	-20.3
14,623.0	89.69	-1.42	9,631.6	5,067.2	-338.4	0.57	0.56	-0.09	23.1	-22.5
14,718.0	90.57	0.81	9,631.4	5,162.2	-336.5	1.13	0.93	-0.64	22.8	-24.2
14,812.0	85.21	355.88	9,634.9	5,256.0	-339.2	7.74	-5.70	-5.24	26.3	-21.3
14,907.0	90.75	356.24	9,638.2	5,350.7	-345.8	5.84	5.83	0.38	29.6	-14.6
15,006.0	87.58	353.77	9,639.7	5,449.3	-354.4	4.06	-3.20	-2.49	31.0	-5.8
15,100.0	91.28	356.41	9,640.6	5,542.9	-362.4	4.84	3.94	2.81	31.8	2.3
15,194.0	92.33	0.19	9,637.7	5,636.8	-365.2	4.17	1.12	4.02	28.8	5.3
15,289.0	90.84	0.10	9,635.0	5,731.8	-365.0	1.57	-1.57	-0.09	26.2	5.2
15,383.0	90.13	1.51	9,634.2	5,825.7	-363.7	1.68	-0.76	1.50	25.3	4.1
15,478.0	87.41	0.81	9,636.3	5,920.7	-361.7	2.96	-2.86	-0.74	27.3	2.3
15,572.0	86.97	0.63	9,640.9	6,014.6	-360.6	0.51	-0.47	-0.19	31.9	1.3
15,667.0	90.92	0.37	9,642.6	6,109.5	-359.7	4.17	4.16	-0.27	33.6	0.6
15,762.0	91.19	2.74	9,640.9	6,204.5	-357.1	2.51	0.28	2.49	31.8	-1.8
15,856.0	90.04	1.51	9,639.9	6,298.4	-353.7	1.79	-1.22	-1.31	30.8	-5.1
15,951.0	87.23	0.98	9,642.1	6,393.3	-351.6	3.01	-2.96	-0.56	33.0	-7.0
16,045.0	88.11	1.33	9,646.0	6,487.2	-349.7	1.01	0.94	0.37	36.8	-8.7
16,140.0	89.69	2.91	9,647.8	6,582.2	-346.2	2.35	1.66	1.66	38.6	-12.1
16,235.0	87.49	2.56	9,650.1	6,677.0	-341.7	2.34	-2.32	-0.37	40.9	-16.5
16,330.0	87.93	2.48	9,653.9	6,771.8	-337.5	0.47	0.46	-0.08	44.7	-20.5
16,425.0	92.95	1.86	9,653.2	6,866.7	-333.9	5.32	5.28	-0.65	44.0	-23.9
16,519.0	89.96	358.96	9,650.8	6,960.7	-333.2	4.43	-3.18	-3.09	41.6	-24.4
16,614.0	90.48	358.87	9,650.4	7,055.7	-335.0	0.56	0.55	-0.09	41.2	-22.4
16,709.0	89.78	359.66	9,650.2	7,150.7	-336.2	1.11	-0.74	0.83	40.9	-21.1



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 2965.0usft
Site:	Golden Graham 1 State Corn	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
16,803.0	90.92	1.60	9,649.6	7,244.7	-335.2	2.39	1.21	2.06	40.3	-21.9
16,898.0	88.90	358.17	9,649.8	7,339.6	-335.4	4.19	-2.13	-3.61	40.5	-21.6
16,993.0	89.16	357.11	9,651.4	7,434.5	-339.3	1.15	0.27	-1.12	42.1	-17.5
17,087.0	89.96	0.28	9,652.1	7,528.5	-341.4	3.48	0.85	3.37	42.8	-15.2
17,182.0	89.34	358.78	9,652.7	7,623.5	-342.2	1.71	-0.65	-1.58	43.3	-14.2
17,272.0	89.69	358.52	9,653.5	7,713.5	-344.3	0.48	0.39	-0.29	44.1	-12.0
17,367.0	90.84	358.43	9,653.0	7,808.4	-346.9	1.21	1.21	-0.09	43.6	-9.3
17,461.0	91.36	359.31	9,651.2	7,902.4	-348.7	1.09	0.55	0.94	41.8	-7.3
17,556.0	91.80	359.49	9,648.6	7,997.3	-349.7	0.50	0.46	0.19	39.1	-6.1
17,651.0	89.96	0.54	9,647.1	8,092.3	-349.7	2.23	-1.94	1.11	37.6	-6.0
17,746.0	88.02	358.52	9,648.8	8,187.3	-350.5	2.95	-2.04	-2.13	39.3	-5.0
17,840.0	89.08	359.40	9,651.2	8,281.3	-352.2	1.47	1.13	0.94	41.6	-3.2
17,935.0	91.01	0.89	9,651.1	8,376.2	-351.9	2.57	2.03	1.57	41.5	-3.2
18,030.0	90.22	0.81	9,650.1	8,471.2	-350.5	0.84	-0.83	-0.08	40.5	-4.5
18,125.0	92.15	2.83	9,648.1	8,566.2	-347.5	2.94	2.03	2.13	38.5	-7.3
18,219.0	90.75	0.54	9,645.8	8,660.1	-344.8	2.85	-1.49	-2.44	36.1	-9.9
18,314.0	89.08	359.49	9,645.9	8,755.1	-344.7	2.08	-1.76	-1.11	36.2	-9.8
18,409.0	88.81	359.75	9,647.6	8,850.1	-345.4	0.39	-0.28	0.27	38.0	-9.0
18,504.0	89.60	0.19	9,649.0	8,945.0	-345.4	0.95	0.83	0.46	39.3	-8.8
18,599.0	89.43	358.61	9,649.8	9,040.0	-346.4	1.67	-0.18	-1.66	40.0	-7.6
18,694.0	89.69	0.19	9,650.5	9,135.0	-347.4	1.69	0.27	1.66	40.7	-6.5
18,789.0	89.78	354.30	9,650.9	9,229.9	-352.0	6.20	0.09	-6.20	41.2	-1.7
18,883.0	90.04	357.91	9,651.1	9,323.6	-358.3	3.85	0.28	3.84	41.3	4.8
18,978.0	87.76	358.70	9,652.9	9,418.6	-361.2	2.54	-2.40	0.83	43.1	7.8
19,073.0	89.43	0.10	9,655.2	9,513.5	-362.1	2.29	1.76	1.47	45.4	9.0
19,168.0	90.75	0.01	9,655.1	9,608.5	-362.1	1.39	1.39	-0.09	45.2	9.0
19,262.0	91.01	0.19	9,653.6	9,702.5	-361.9	0.34	0.28	0.19	43.8	9.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 2965.0usft
Site:	Golden Graham 1 State Com	MD Reference:	KB = 25 @ 2965.0usft
Well:	#701H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

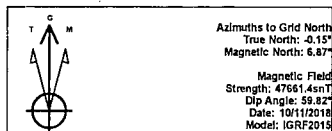
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
19,356.0	91.10	359.40	9,651.9	9,796.5	-362.2	0.85	0.10	-0.84	42.0	9.5
19,451.0	90.84	0.72	9,650.3	9,891.5	-362.1	1.42	-0.27	1.39	40.4	9.6
Last MWD Survey (MD = 19451.0)										
19,649.0	90.84	0.72	9,647.4	10,089.4	-359.6	0.00	0.00	0.00	37.4	7.4
Projection to Bit (MD = 19649.0)										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,120.0	9,099.9	-159.6	-398.1	KOP 9120.0' MD; 9099.9' TVD; -159.6'; -398.1'; 2.59
9,654.8	9,530.1	114.0	-369.4	FTP Crossing 9654.8' MD; 9530.1' TVD; 114.0'; -369.4'; 60.60
19,451.0	9,650.3	9,891.5	-362.1	Last MWD Survey (MD = 19451.0)
19,649.0	9,647.4	10,089.4	-359.6	Projection to Bit (MD = 19649.0)

Checked By: _____	Approved By: _____	Date: _____
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Eddy County, NM (NAD 83 NME)
Golden Graham 1 State Com #701H
Plan #1



Azimuths to Grid North
True North: 0.15°
Magnetic North: 6.87°
Magnetic Field
Strength: 47651.4nT
Dip Angle: 59.82°
Date: 10/11/2018
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.87°
To convert a Magnetic Direction to a True Direction, Add 7.02° East
To convert a True Direction to a Grid Direction, Subtract 0.15°

PROJECT DETAILS: Eddy 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: #701H

KB = 25 @ 2965.0usft
Northing 387494.00
Easting 630031.00
Latitude 32° 3' 53.919 N
Longitude 104° 2' 49.246 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1448.7	6.97	245.84	1447.9	-8.7	-19.3	2.00	245.84	-8.0	
4	4439.1	6.97	245.84	4416.1	-157.3	-350.7	0.00	0.00	-145.1	
5	4787.9	0.00	0.00	4784.0	-168.0	-370.0	2.00	180.00	-153.1	Brushy Top(GG 1 SC #701H)
6	9143.1	0.00	0.00	9119.2	-166.0	-370.0	0.00	0.00	-153.1	
7	9891.6	89.82	0.10	9596.7	310.0	-369.2	12.00	0.10	322.5	
8	13571.5	89.82	0.10	9608.0	3989.9	-362.8	0.00	0.00	4000.0	TGT#1(GG 1 SC #701H)
9	13578.9	89.97	0.10	9608.0	3997.3	-362.8	2.00	0.00	4007.4	
10	15572.8	89.97	0.10	9609.0	5991.2	-359.3	0.00	0.00	6000.0	TGT#2(GG 1 SC #701H)
11	15573.6	89.99	0.10	9609.0	5991.9	-359.3	2.00	0.00	6000.8	
12	19781.6	89.99	0.10	9610.0	10200.0	-352.0	0.00	0.00	10206.1	PBHL(GG 1 SC #701H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(GG 1 SC #701H)	4784.0	-168.0	-370.0	387328.00	629561.00
FTP(GG 1 SC #701H)	9596.0	114.0	-370.0	387508.00	629561.00
TGT#1(GG 1 SC #701H)	9608.0	3989.9	-362.8	391423.90	629688.22
TGT#2(GG 1 SC #701H)	9609.0	5991.2	-359.3	393485.20	629671.68
PBHL(GG 1 SC #701H)	9610.0	10200.0	-352.0	397694.00	629676.00

