

HOBBS OCD
JUL 26 2019
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Neptune 10 State Com

#302H

OH

Design: OH

Midland PVA

29 April, 2019



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #302H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25 @ 3636.0usft (HP)
Site:	Neptune 10 State Com			MD Reference:	KB = 25 @ 3636.0usft (HP)
Well:	#302H			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	Neptune 10 State Com				
Site Position:		Northing:	446,557.00 usft	Latitude:	32° 13' 31.172 N
From:	Map	Easting:	778,964.00 usft	Longitude:	103° 33' 53.609 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	#302H					
Well Position	+N-S	0.0 usft	Northing:	446,628.00 usft	Latitude:	32° 13' 31.667 N
	+E-W	0.0 usft	Easting:	779,072.00 usft	Longitude:	103° 33' 52.346 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,611.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/27/2018	6.82	60.05	47,815.55290397

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	358.93	

Survey Program	Date 4/29/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
139.0	20,312.0	Prodirectional 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 (")	Asl (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Bulld ("/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
139.0	0.30	198.40	139.0	-0.3	-0.1	0.22	0.22	0.00	-0.4	0.0	
308.0	0.70	195.10	308.0	-1.8	-0.5	0.24	0.24	-1.95	-1.8	0.0	
481.0	0.80	184.80	481.0	-4.1	-0.9	0.14	0.12	-5.95	-4.2	-0.8	
576.0	1.00	182.10	576.0	-5.7	-1.0	0.12	0.11	-2.84	-5.7	-0.8	
670.0	0.80	175.20	669.9	-7.3	-1.0	0.16	-0.11	-7.34	-7.2	-1.6	
765.0	0.80	171.80	764.9	-8.7	-0.8	0.12	-0.11	-3.47	-8.5	-2.0	
859.0	0.80	169.30	858.9	-10.0	-0.6	0.11	0.11	-2.77	-9.8	-2.4	
1,048.0	0.60	207.40	1,047.9	-12.4	-0.8	0.30	-0.16	20.16	-11.3	5.0	
1,238.0	0.80	199.50	1,235.9	-14.5	-1.7	0.12	0.11	-4.20	-14.2	3.3	
1,375.0	0.80	210.40	1,374.9	-16.3	-2.5	0.14	0.07	7.84	-15.4	6.1	
1,528.0	0.40	347.20	1,527.9	-18.9	-3.3	0.80	-0.33	89.41	15.7	6.9	
1,623.0	0.30	358.50	1,622.9	-16.3	-3.3	0.13	-0.11	11.89	16.2	3.8	
1,717.0	0.40	340.60	1,716.9	-15.7	-3.5	0.16	0.11	-19.04	13.7	8.5	
1,812.0	0.40	330.00	1,811.9	-15.1	-3.7	0.08	0.00	-11.16	11.2	10.8	
1,906.0	0.30	331.80	1,905.9	-14.6	-4.0	0.11	-0.11	1.91	11.0	10.5	
2,000.0	0.40	352.10	1,999.9	-14.1	-4.2	0.17	0.11	21.60	13.4	6.1	
2,094.0	0.50	345.90	2,093.9	-13.4	-4.3	0.12	0.11	-6.60	11.9	7.4	
2,189.0	0.70	339.40	2,188.9	-12.4	-4.6	0.22	0.21	-6.84	10.0	8.7	
2,283.0	0.70	324.40	2,282.9	-11.4	-5.2	0.19	0.00	-15.96	6.3	10.8	
2,378.0	0.70	327.40	2,377.8	-10.5	-5.8	0.04	0.00	3.16	5.7	10.5	
2,472.0	0.70	347.70	2,471.8	-9.4	-6.2	0.26	0.00	21.60	7.9	8.1	
2,566.0	0.70	343.80	2,565.8	-8.3	-6.5	0.05	0.00	-4.15	6.1	8.6	
2,661.0	0.80	349.10	2,660.8	-7.0	-6.8	0.22	0.21	5.58	5.6	8.0	
2,755.0	0.70	347.90	2,754.8	-5.7	-7.1	0.21	-0.21	-1.28	4.1	8.1	
2,849.0	0.60	336.70	2,848.8	-4.7	-7.4	0.17	-0.11	-11.91	1.4	8.7	
2,944.0	0.50	325.90	2,943.8	-3.9	-7.8	0.15	-0.11	-11.37	-1.2	8.7	



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 MD Reference: KB = 25 @ 3636.0usft (HP)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey												
MD (usft)	Inc (")	Asl (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)		
3,038.0	0.70	343.20	3,037.8	-3.0	-8.2	0.28	0.21	18.40	0.5	8.8		
3,132.0	0.70	341.70	3,131.8	-1.9	-8.6	0.02	0.00	-1.60	-0.9	8.7		
3,227.0	0.70	2.90	3,226.8	-0.8	-8.7	0.27	0.00	22.32	1.2	8.7		
3,321.0	0.70	338.70	3,320.8	0.3	-8.9	0.31	0.00	-25.74	-3.5	8.2		
3,416.0	0.70	9.30	3,415.8	1.4	-9.0	0.39	0.00	32.21	0.0	9.1		
3,510.0	0.70	10.20	3,509.8	2.6	-8.8	0.01	0.00	0.86	-1.0	9.1		
3,604.0	1.00	5.00	3,603.8	3.9	-8.7	0.33	0.32	-5.53	-3.2	9.0		
3,699.0	1.00	356.90	3,698.7	5.6	-8.6	0.15	0.00	-8.53	-8.1	8.3		
3,794.0	0.90	345.20	3,793.7	7.1	-8.9	0.23	-0.11	-12.32	-9.2	8.7		
3,888.0	0.80	320.50	3,887.7	8.4	-9.5	0.40	-0.11	-26.28	-12.5	2.0		
3,983.0	1.00	301.90	3,982.7	9.3	-10.6	0.37	0.21	-19.58	-13.9	-2.3		
4,077.0	1.10	292.80	4,076.7	10.1	-12.1	0.21	0.11	-9.68	-15.1	-4.6		
4,172.0	1.20	295.90	4,171.7	10.9	-13.9	0.12	0.11	3.26	-17.2	-3.7		
4,266.0	1.20	298.50	4,265.7	11.8	-15.6	0.06	0.00	2.77	-19.3	-2.9		
4,360.0	1.30	311.40	4,359.8	13.0	-17.3	0.32	0.11	13.72	-21.5	1.7		
4,455.0	0.40	341.70	4,454.6	14.0	-18.2	1.03	-0.85	31.89	-19.0	12.9		
4,549.0	0.90	91.80	4,548.6	14.3	-17.6	1.17	0.53	117.13	18.0	13.7		
4,643.0	1.20	98.50	4,642.6	14.1	-15.8	0.34	0.32	7.13	17.8	11.6		
4,738.0	1.60	110.30	4,737.6	13.5	-13.6	0.52	0.42	12.42	17.5	7.9		
4,833.0	2.30	114.00	4,832.5	12.3	-10.6	0.75	0.74	3.89	14.7	6.9		
4,927.0	2.90	118.00	4,926.4	10.4	-8.8	0.87	0.84	4.26	10.9	6.0		
5,021.0	3.20	114.00	5,020.3	8.2	-2.3	0.39	0.32	-4.26	5.4	6.6		
5,078.0	2.90	113.70	5,077.2	7.0	0.5	0.53	-0.53	-0.53	2.4	6.6		
5,196.0	2.50	116.80	5,195.1	4.6	5.5	0.36	-0.34	2.46	-2.5	8.1		
5,291.0	3.10	151.10	5,290.0	1.4	8.6	1.85	0.63	36.32	1.7	12.6		
5,385.0	3.80	187.50	5,383.8	-3.9	9.4	2.40	0.74	38.72	11.0	11.6		
5,479.0	6.50	195.40	5,477.4	-12.1	7.6	2.96	2.87	8.40	12.1	10.4		



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5,574.0	7.20	186.10	5,571.7	-23.0	4.5	0.74	0.74	0.74	8.0	10.2	
5,668.0	7.40	184.60	5,665.0	-34.5	1.4	0.29	0.21	-1.60	4.6	10.3	
5,782.0	7.30	195.30	5,758.2	-46.1	-1.7	0.14	-0.11	0.74	0.6	10.3	
5,857.0	7.50	196.80	5,852.4	-57.9	-5.1	0.30	0.21	1.68	-3.3	10.2	
5,951.0	7.80	187.10	5,845.6	-69.7	-8.8	0.11	0.11	0.21	-7.7	9.9	
6,045.0	7.50	195.90	6,038.8	-81.5	-12.3	0.20	-0.11	-1.28	-12.3	9.5	
6,140.0	7.10	194.10	6,133.0	-93.2	-15.4	0.48	-0.42	-1.89	-16.6	9.1	
6,234.0	6.80	194.50	6,226.3	-104.2	-18.2	0.32	-0.32	0.43	-20.0	9.3	
6,329.0	6.50	193.20	6,320.7	-114.9	-20.8	0.35	-0.32	-1.37	-23.2	9.0	
6,423.0	6.60	194.10	6,414.1	-125.3	-23.4	0.15	0.11	0.96	-25.8	9.6	
6,517.0	6.50	191.50	6,507.5	-135.8	-25.7	0.33	-0.11	-2.77	-29.0	8.7	
6,612.0	6.70	193.80	6,601.8	-146.4	-28.1	0.35	0.21	2.42	-31.5	10.2	
6,706.0	6.70	193.40	6,695.2	-157.1	-30.7	0.05	0.00	-0.43	-34.6	10.2	
6,800.0	5.30	188.40	6,788.7	-166.7	-32.6	1.59	-1.49	-5.32	-37.3	7.8	
6,895.0	3.60	193.80	6,883.4	-173.9	-34.0	1.84	-1.79	5.47	-35.8	11.5	
6,989.0	2.20	202.20	6,877.3	-178.5	-35.3	1.56	-1.49	9.15	-30.4	16.2	
7,084.0	2.40	201.10	7,072.2	-182.0	-36.7	0.22	0.21	-1.16	-26.6	14.7	
7,178.0	2.40	201.30	7,166.1	-185.7	-38.2	0.01	0.00	0.21	-22.5	14.0	
7,272.0	2.50	199.40	7,260.0	-189.5	-39.6	0.14	0.11	-2.02	-19.0	12.5	
7,367.0	0.10	126.10	7,355.0	-191.5	-40.2	2.60	-2.53	-77.16	-15.4	-9.3	
7,461.0	0.20	69.60	7,449.0	-191.5	-40.0	0.18	0.11	-60.11	-3.9	-13.8	
7,556.0	0.10	13.50	7,544.0	-191.3	-39.8	0.18	-0.11	-59.05	7.0	-11.1	
7,651.0	0.40	155.10	7,639.0	-191.5	-39.6	0.51	0.32	149.05	-12.6	4.5	
7,745.0	0.80	151.80	7,733.0	-192.4	-39.2	0.43	0.43	-3.51	-13.8	3.7	
7,839.0	0.60	24.20	7,827.0	-192.6	-38.7	1.34	-0.21	-135.74	5.4	-13.7	
7,934.0	1.00	15.30	7,922.0	-191.3	-38.2	0.44	0.42	-8.37	6.1	-12.8	
8,028.0	0.90	44.20	8,015.9	-190.0	-37.5	0.51	-0.11	30.74	-2.3	-13.8	



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8,123.0	0.60	48.50	8,110.9	-189.1	-36.6	0.32	-0.32	4.53	-4.6	-13.5		
8,217.0	0.60	73.20	8,204.9	-188.6	-35.8	0.27	0.00	26.28	-10.7	-10.2		
8,311.0	0.80	71.30	8,298.9	-188.3	-34.7	0.21	0.21	-2.02	-11.5	-10.5		
8,406.0	0.60	108.10	8,393.9	-188.2	-33.6	0.51	-0.21	38.74	-16.6	-1.1		
8,500.0	0.80	139.10	8,487.9	-188.9	-32.6	0.53	0.32	32.98	-16.0	7.8		
8,594.0	0.80	143.00	8,581.9	-190.0	-31.8	0.12	-0.11	4.15	-16.8	8.9		
8,688.0	1.00	138.60	8,675.9	-191.2	-30.8	0.22	0.21	-4.68	-18.9	7.6		
8,783.0	0.90	138.20	8,770.9	-192.3	-29.8	0.11	-0.11	-0.42	-20.5	7.4		
8,877.0	0.60	282.30	8,864.9	-192.8	-29.8	1.52	-0.32	153.30	21.1	6.4		
8,972.0	0.60	260.90	8,959.9	-192.8	-30.7	0.23	0.00	-22.53	16.3	13.5		
9,066.0	0.60	284.40	9,053.9	-192.7	-31.7	0.28	0.00	25.00	19.4	6.1		
9,161.0	0.70	283.70	9,148.9	-192.5	-32.8	0.11	0.11	-0.74	18.3	6.3		
9,255.0	0.90	306.90	9,242.8	-191.9	-33.9	0.40	0.21	24.68	18.0	-1.2		
9,349.0	1.80	348.20	9,336.8	-190.0	-34.8	1.32	0.96	41.81	11.1	-11.8		
9,444.0	1.70	2.20	9,431.8	-187.1	-35.1	0.52	-0.11	16.84	4.6	-14.0		
9,538.0	0.80	292.40	9,525.8	-185.5	-35.7	1.71	-0.96	-74.26	13.6	-1.8		
9,639.0	8.90	318.70	9,656.2	-177.5	-43.2	6.25	6.18	20.08	0.6	-7.2		
9,783.0	20.30	349.60	9,747.1	-155.9	-51.0	14.29	12.13	32.87	-15.9	-1.9		
9,857.0	31.40	351.40	9,831.6	-115.5	-57.6	11.84	11.81	1.91	-32.5	0.5		
9,952.0	40.40	346.80	9,908.5	-61.0	-68.4	9.88	9.47	-4.84	-49.7	1.8		
10,046.0	45.80	346.30	9,977.1	1.5	-83.3	5.76	5.74	-0.53	-82.1	9.6		
10,140.0	55.50	351.70	10,036.6	72.7	-97.0	11.23	10.32	5.74	-68.4	20.7		
10,235.0	59.20	354.50	10,087.9	152.1	-106.5	4.62	3.89	2.95	-68.5	24.4		
10,329.0	66.40	354.80	10,130.8	235.3	-114.3	7.66	7.66	0.32	-60.7	24.1		
10,424.0	74.50	354.50	10,162.6	324.4	-122.7	8.53	8.53	-0.32	-48.1	23.6		
10,519.0	74.90	356.30	10,167.7	415.7	-130.0	1.88	0.42	1.89	-26.4	22.4		
10,613.0	82.00	356.60	10,206.5	507.5	-135.7	7.56	7.55	0.32	-8.0	22.1		



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10,707.0	88.00	359.90	10,214.7	601.1	-138.5	7.28	6.38	3.51	0.1	23.5
10,802.0	91.30	2.40	10,215.2	698.1	-138.6	4.36	3.47	2.63	0.6	20.8
10,897.0	90.70	2.80	10,213.6	790.9	-132.3	0.76	-0.63	0.42	-1.1	15.8
10,991.0	90.80	2.50	10,212.4	884.8	-126.0	0.34	0.11	-0.32	-2.3	10.7
11,085.0	89.50	0.80	10,212.1	978.8	-125.3	2.28	-1.38	-1.81	-2.6	7.3
11,179.0	90.40	0.30	10,212.2	1,072.8	-124.4	1.10	0.06	-0.53	-2.6	5.6
11,273.0	90.80	0.30	10,211.2	1,166.8	-123.9	0.43	0.43	0.00	-3.6	4.4
11,368.0	89.10	1.30	10,211.3	1,261.8	-122.6	2.08	-1.79	1.05	-3.6	2.3
11,462.0	89.70	1.60	10,212.3	1,355.7	-120.2	0.71	0.64	0.32	-2.6	-0.6
11,556.0	89.60	0.60	10,212.8	1,449.7	-118.4	1.07	-0.11	-1.06	-2.1	-3.3
11,650.0	90.30	359.90	10,212.9	1,543.7	-118.0	1.05	0.74	-0.74	-2.0	-4.5
11,745.0	91.60	359.90	10,211.4	1,638.7	-118.1	1.37	1.37	0.00	-3.7	-5.1
11,839.0	89.50	0.00	10,210.5	1,732.7	-118.2	2.24	-2.23	0.11	-4.8	-5.7
11,934.0	90.40	359.90	10,210.5	1,827.7	-118.3	0.85	0.95	-0.11	-4.9	-6.4
12,028.0	90.80	1.00	10,209.6	1,921.7	-117.6	1.25	0.43	1.17	-6.0	-7.8
12,123.0	89.80	1.50	10,209.1	2,016.6	-115.5	1.18	-1.05	0.53	-6.7	-10.6
12,217.0	89.50	1.00	10,208.6	2,110.6	-113.4	0.82	-0.32	-0.53	-6.3	-13.4
12,311.0	90.20	0.90	10,208.9	2,204.6	-111.9	0.75	0.74	-0.11	-6.2	-15.7
12,406.0	87.90	0.20	10,211.4	2,299.6	-111.0	2.53	-2.42	-0.74	-4.8	-17.4
12,500.0	86.90	359.40	10,215.7	2,393.5	-111.3	1.36	-1.08	-0.85	-0.7	-17.8
12,595.0	88.00	359.40	10,219.9	2,488.4	-112.3	1.16	1.16	0.00	3.4	-17.5
12,689.0	87.20	359.70	10,223.9	2,582.3	-113.0	0.81	-0.85	0.32	7.2	-17.5
12,784.0	88.50	359.50	10,227.4	2,677.2	-113.7	1.38	1.37	-0.21	10.6	-17.6
12,878.0	89.10	359.90	10,229.4	2,771.2	-114.2	0.77	0.64	0.43	12.4	-17.8
12,972.0	89.20	359.20	10,230.8	2,865.2	-114.9	0.75	0.11	-0.74	13.6	-17.8
13,066.0	89.40	358.60	10,232.0	2,959.2	-116.7	0.67	0.21	-0.64	14.6	-16.8
13,161.0	90.90	358.80	10,231.7	3,054.1	-116.9	1.59	1.58	0.21	14.2	-15.3



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Neptune 10 State Com
 Well: #302H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #302H
 TVD Reference: KB = 25 @ 3836.0usft (HP)
 MD Reference: KB = 25 @ 3536.0usft (HP)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
13,256.0	91.10	358.50	10,230.0	3,148.1	-121.1	0.38	0.21	-0.32	12.4	-13.8	
13,349.0	92.70	358.40	10,227.0	3,242.0	-123.6	1.72	1.72	-0.11	9.1	-12.1	
13,444.0	91.80	359.30	10,223.2	3,336.9	-125.5	1.34	-0.85	0.95	5.2	-10.8	
13,538.0	90.30	359.70	10,221.5	3,430.9	-126.4	1.65	-1.60	0.43	3.4	-10.8	
13,632.0	91.70	359.80	10,218.9	3,524.9	-126.7	1.50	1.49	0.21	1.5	-11.2	
13,727.0	91.20	0.70	10,217.5	3,618.8	-126.2	0.99	-0.53	0.84	-1.0	-12.4	
13,821.0	89.20	0.50	10,217.1	3,713.8	-125.2	2.14	-2.13	-0.21	-1.5	-14.2	
13,916.0	89.40	0.80	10,218.3	3,808.8	-124.3	0.24	0.21	0.11	-0.5	-15.8	
14,010.0	88.50	359.90	10,220.0	3,902.8	-123.9	1.21	-0.96	-0.74	1.0	-17.0	
14,104.0	89.10	0.30	10,222.0	3,998.8	-123.7	0.77	0.64	0.43	2.8	-17.9	
14,199.0	87.90	359.90	10,224.5	4,091.7	-123.5	1.33	-1.26	-0.42	5.2	-18.8	
14,293.0	87.80	359.60	10,228.0	4,185.7	-124.0	0.34	-0.11	-0.32	8.5	-19.1	
14,387.0	89.20	359.20	10,230.5	4,279.6	-124.9	1.55	1.49	-0.43	10.8	-18.8	
14,482.0	90.20	358.70	10,231.0	4,374.6	-126.7	1.18	1.05	-0.53	11.2	-17.8	
14,576.0	91.50	358.60	10,229.6	4,468.6	-128.9	1.39	1.38	-0.11	9.6	-16.3	
14,671.0	90.60	359.10	10,227.8	4,563.5	-130.8	1.08	-0.85	0.53	7.8	-15.2	
14,765.0	91.50	358.70	10,226.1	4,657.5	-132.6	1.05	0.96	-0.43	6.0	-14.1	
14,860.0	91.10	359.80	10,223.9	4,752.5	-133.8	1.33	-0.42	1.26	3.7	-13.7	
14,954.0	90.10	359.30	10,223.0	4,846.5	-134.4	1.24	-1.08	-0.64	2.7	-13.8	
15,049.0	87.80	0.30	10,224.7	4,941.4	-134.8	2.84	-2.42	1.05	4.3	-14.2	
15,143.0	88.50	0.00	10,227.7	5,035.4	-134.5	0.81	0.74	-0.32	7.3	-15.1	
15,238.0	89.80	0.20	10,229.1	5,130.4	-134.3	1.38	1.37	0.21	8.6	-16.1	
15,332.0	89.00	359.40	10,230.1	5,224.4	-134.7	1.20	-0.85	-0.85	9.5	-16.5	
15,426.0	87.80	357.80	10,232.8	5,318.3	-137.0	2.13	-1.28	-1.70	12.0	-14.9	
15,521.0	88.90	358.00	10,235.5	5,413.2	-140.4	1.18	1.16	0.21	14.7	-12.2	
15,615.0	89.50	358.00	10,236.8	5,507.1	-143.7	0.64	0.64	0.00	15.9	-8.6	
15,709.0	89.70	358.10	10,237.5	5,601.1	-146.9	0.24	0.21	0.11	18.5	-7.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #302H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3636.0usft (HP)
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3636.0usft (HP)
Well:	#302H	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)	EW (usft)	D/Lag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,804.0	88.70	357.10	10,238.8	5,696.0	-150.9	1.48	-1.05	-1.05	17.7	-3.9	
15,898.0	90.10	357.90	10,239.8	5,789.9	-155.0	1.72	1.49	0.85	18.6	-0.5	
15,892.0	92.60	359.10	10,237.6	5,883.8	-157.5	2.95	2.66	1.28	16.3	1.2	
16,087.0	92.40	359.20	10,233.4	5,978.7	-158.9	0.24	-0.21	0.11	12.1	1.9	
16,181.0	93.00	0.70	10,229.0	6,072.6	-159.0	1.72	0.64	1.60	7.6	1.2	
16,275.0	90.30	0.90	10,226.3	6,166.5	-157.6	2.88	-2.87	0.21	4.8	-0.8	
16,370.0	89.90	1.00	10,226.1	6,261.5	-156.1	0.43	-0.42	0.11	4.6	-3.1	
16,465.0	91.20	0.90	10,225.2	6,356.5	-154.5	1.37	1.37	-0.11	3.8	-5.5	
16,559.0	90.20	1.30	10,224.1	6,450.5	-152.7	1.15	-1.06	0.43	2.3	-8.0	
16,653.0	90.10	0.90	10,223.8	6,544.5	-150.9	0.44	-0.11	-0.43	2.0	-10.5	
16,748.0	89.30	0.40	10,224.3	6,639.5	-149.8	0.99	-0.64	-0.53	2.4	-12.4	
16,842.0	89.60	0.10	10,225.2	6,733.5	-149.4	0.45	0.32	-0.32	3.2	-13.5	
16,936.0	89.50	359.50	10,225.9	6,827.4	-149.7	0.65	-0.11	-0.64	3.9	-13.9	
17,031.0	90.00	359.10	10,226.4	6,922.4	-150.9	0.67	0.53	-0.42	4.2	-13.5	
17,125.0	91.30	359.40	10,225.3	7,016.4	-152.1	1.42	1.38	0.32	3.1	-13.0	
17,220.0	90.30	358.50	10,224.0	7,111.4	-153.9	1.42	-1.05	-0.95	1.7	-12.0	
17,314.0	87.90	358.20	10,225.4	7,205.3	-156.6	2.57	-2.55	-0.32	3.1	-10.0	
17,408.0	88.50	358.10	10,226.4	7,299.2	-159.8	0.65	0.64	-0.11	5.9	-7.7	
17,502.0	88.30	357.90	10,231.0	7,393.1	-162.9	0.30	-0.21	-0.21	8.5	-5.2	
17,597.0	89.10	357.50	10,233.2	7,488.0	-166.7	0.94	0.84	-0.42	10.6	-2.1	
17,691.0	89.90	357.60	10,234.0	7,582.0	-170.7	0.88	0.85	0.11	11.3	1.2	
17,785.0	91.20	358.00	10,233.1	7,675.9	-174.3	1.45	1.38	0.43	10.3	4.1	
17,880.0	92.30	357.90	10,230.2	7,770.8	-177.7	1.16	1.16	-0.11	7.3	6.7	
17,974.0	93.30	357.70	10,225.8	7,864.6	-181.3	1.08	1.06	-0.21	2.7	9.8	
18,068.0	91.30	359.10	10,221.8	7,958.5	-183.9	2.60	-2.13	1.49	-1.2	11.5	
18,163.0	92.00	359.70	10,218.1	8,053.4	-184.9	0.97	0.74	0.63	-4.0	11.8	
18,257.0	89.80	0.50	10,217.6	8,147.4	-184.8	2.49	-2.34	0.65	-5.6	10.9	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Neptune 10 State Com
 Well: #302H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #302H
 TVD Reference: KB = 25 @ 3636.0usft (HP)
 MD Reference: KB = 25 @ 3636.0usft (HP)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)	
18,352.0	92.40	1.00	10,215.8	8,242.4	-183.5	2.79	2.74	0.53	-7.5	8.9	
18,446.0	88.60	1.30	10,215.0	8,336.3	-181.6	4.08	-4.04	0.32	-8.4	6.3	
18,541.0	89.80	1.30	10,216.3	8,431.3	-179.5	1.28	1.28	0.00	-7.1	3.4	
18,635.0	89.50	1.90	10,216.9	8,525.3	-176.9	0.71	-0.32	0.64	-6.7	0.0	
18,729.0	90.70	1.60	10,216.7	8,619.2	-174.0	1.32	1.28	-0.32	-6.9	-3.6	
18,824.0	88.10	1.70	10,217.7	8,714.2	-171.2	2.74	-2.74	0.11	-6.0	-7.1	
18,918.0	87.60	1.70	10,221.2	8,808.1	-168.5	0.53	-0.53	0.00	-2.8	-10.6	
19,013.0	89.20	1.00	10,223.9	8,903.0	-166.2	1.84	1.88	-0.74	0.0	-13.6	
19,107.0	90.90	1.10	10,223.8	8,997.0	-164.5	1.81	1.81	0.11	-0.1	-18.0	
19,202.0	91.50	1.00	10,221.8	9,091.9	-162.8	0.64	0.63	-0.11	-2.2	-18.5	
19,296.0	92.00	0.50	10,218.9	9,185.9	-161.5	0.75	0.53	-0.53	-5.1	-20.5	
19,391.0	92.70	0.50	10,215.0	9,280.8	-160.7	0.74	0.74	0.00	-9.1	-22.0	
19,485.0	88.90	1.30	10,213.7	9,374.8	-159.2	4.13	-4.04	0.85	-10.5	-24.2	
19,580.0	89.50	0.60	10,215.1	9,469.7	-157.6	0.97	0.63	-0.74	-9.3	-26.6	
19,674.0	88.60	0.00	10,216.6	9,563.7	-157.2	1.15	-0.98	-0.64	-7.8	-27.8	
19,769.0	87.90	0.00	10,219.5	9,658.7	-157.2	0.74	-0.74	0.00	-5.0	-28.5	
19,863.0	89.50	0.00	10,221.7	9,752.6	-157.2	1.70	1.70	0.00	-2.9	-29.3	
19,957.0	90.60	359.80	10,221.4	9,846.6	-157.3	1.40	1.38	-0.21	-3.3	-29.8	
20,052.0	88.50	358.40	10,222.0	9,941.6	-158.8	2.83	-2.42	-1.47	-2.8	-29.1	
20,146.0	90.00	357.90	10,223.2	10,035.6	-161.8	1.68	1.60	-0.53	-1.6	-26.8	
20,240.0	90.50	357.80	10,222.8	10,129.5	-163.4	0.54	0.53	-0.11	-2.1	-24.0	
20,312.0	90.50	357.80	10,222.2	10,201.4	-168.1	0.00	0.00	0.00	-2.8	-21.8	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #302H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3636.0usft (HP)
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3636.0usft (HP)
Well:	#302H	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)	
9,596.0	9,583.7	-183.8	-37.8	KOP, MD:9596.0', TVD:9583.7', N/S:-183.8', E/W:-37.8', INC:4.34
9,823.1	9,802.1	-132.0	-55.1	FTP Crossing, MD:9823.1', TVD:9802.1', N/S:-132.0', E/W:-55.1', INC:27.39
20,240.0	10,222.8	10,128.5	-165.4	Last MWD Survey (MD=20240.0')
20,312.0	10,222.2	10,201.4	-168.1	Projection to Bit (MD=20312.0')

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

Neptune 10 State Com

#302H

HP

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



Adjusting to Grid North
True North: 0.0°
Magnetic North: 0.3°
Grid North: 0.3°
Grid Angle: 0.3°
Grid Azimuth: 0.3°
Grid Azimuth: 0.3°

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

WELL DETAILS: #302H

	N-S	E-W	Northing	Eastings	Longitude	Lat
KB = 25 @ 3638.000 (97)						
3611.0						
770077.00	32° 17' 31.887 N	103° 32' 52.348 W				

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	N-S	E-W	Dleg	TFace	VSeal	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5100.0	0.00	0.00	5100.0	0.0	0.0	0.00	0.00	0.0	
3	5342.9	4.86	195.07	5342.6	-9.9	-2.7	2.00	195.07	-9.9	
4	7325.8	4.86	195.07	7316.4	-172.1	-48.3	0.00	0.00	-171.2	
5	7589.7	0.00	0.00	7581.0	-182.0	-49.0	2.00	180.00	-181.1	Brushy Top(Neptune 10 St Com #302H)
6	9649.2	0.00	0.00	9641.5	-182.0	-49.0	0.00	0.00	-181.1	
7	10548.9	89.97	354.34	10214.5	387.9	-103.5	10.00	354.34	389.8	
8	10722.6	89.97	359.55	10214.5	561.2	-114.7	3.00	89.95	563.3	TGT#1(Neptune 10 St Com #302H)
9	11759.4	89.97	359.55	10215.0	1598.0	-122.9	0.00	0.00	1600.0	
10	11763.1	89.90	359.55	10215.0	1601.7	-122.9	2.00	177.39	1603.7	TGT#2(Neptune 10 St Com #302H)
11	14659.6	89.90	359.55	10220.0	4498.1	-145.5	0.00	0.00	4500.0	
12	14662.0	89.95	359.55	10220.0	4500.5	-145.5	2.00	0.00	4502.5	
13	20374.6	89.95	359.55	10225.0	10213.0	-190.0	0.00	0.00	10214.8	BHL (Neptune 10 St Com #302H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	N-S	E-W	Northing	Eastings	Shape
Brushy Top(Neptune 10 St Com #302H)	7891.0	-182.0	-48.0	448444.00	779223.00	Polygon
PTP (Neptune 10 St Com #302H)	10214.0	-132.0	-109.0	448488.00	779363.00	Point
TGT#1(Neptune 10 St Com #302H)	10218.0	1038.0	-122.9	448228.00	778443.13	Point
TGT#2(Neptune 10 St Com #302H)	10220.0	4498.1	-145.5	451126.10	778328.00	Point
BHL (Neptune 10 St Com #302H)	10225.0	10213.0	-190.0	458841.00	778882.00	Rectangle (Sides: L0.0 W0.0)

