

APR 14 2017

RECEIVED



Lea County, NM (NAD 27 NME)

Neptune 10 State Com #503H

Noram #30

Plan #2

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

WELL DETAILS: #503H

Ground Level: 3609.0
 KB = 25' @ 3634.0usft (Noram #30)
 Northing 446671.00 Easting 738905.00 Latitude 32° 13' 32.356 N Longitude 103° 33' 38.776 W

Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 6.59°

Magnetic Field
 Strength: 47888.3nT
 Dip Angle: 60.07°
 Date: 12/24/2016
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.59°
 To convert a Magnetic Direction to a True Direction, Add 7.00° East
 To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

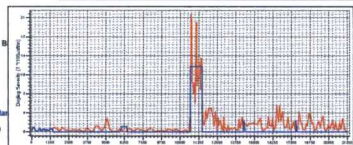
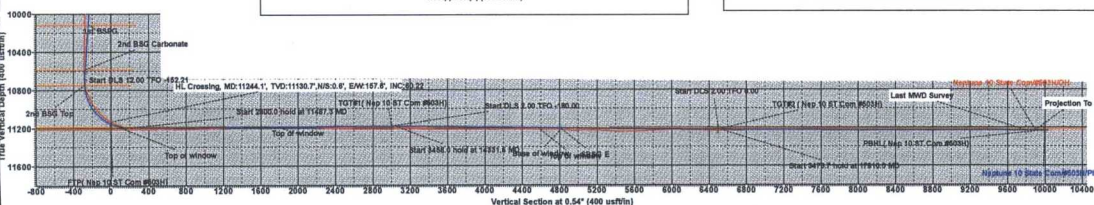
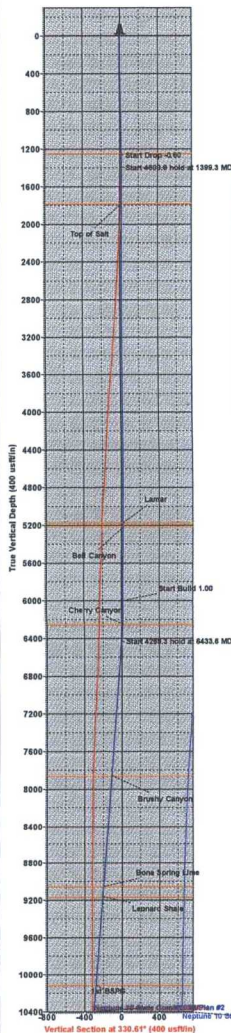
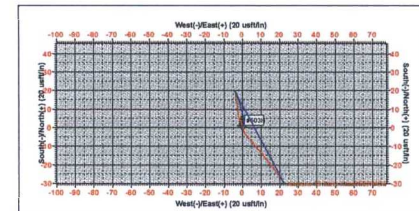
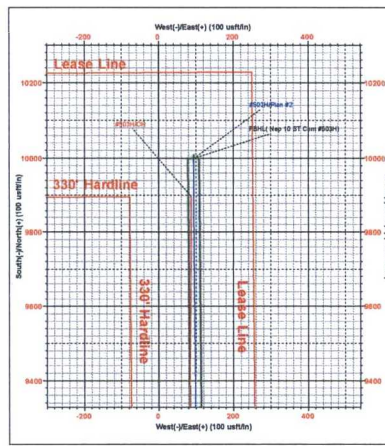
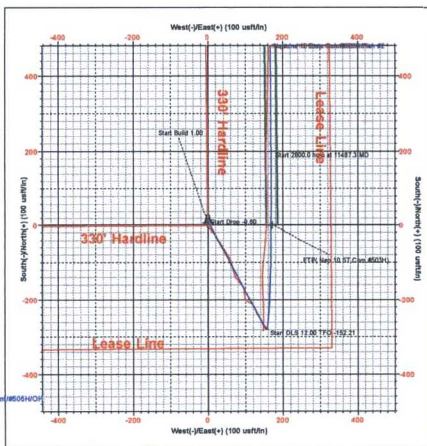
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	1266.0	0.80	341.00	1265.8	19.2	-3.8	0.00	0.00	19.2	
2	1399.3	0.00	0.00	1399.1	20.1	-4.1	0.60	180.00	20.1	
3	6000.2	0.00	0.00	6000.0	20.1	-4.1	0.00	0.00	20.1	
4	6433.6	4.33	151.84	6433.0	5.7	3.6	1.00	151.84	5.7	
5	10702.9	4.33	151.84	10690.1	-278.8	155.9	0.00	0.00	-277.3	
6	11487.3	90.29	359.56	11199.2	200.1	170.3	12.00	-152.21	201.7	
7	14287.3	90.29	359.56	11185.0	3000.0	148.7	0.00	0.00	3001.3	TGT#1 (Nep 10 ST Com #503H)
8	14331.5	89.41	359.56	11185.1	3044.2	148.4	2.00	-180.00	3045.5	
9	17787.6	89.41	359.56	11221.0	6500.0	121.9	0.00	0.00	6500.9	TGT#2 (Nep 10 ST Com #503H)
10	17810.0	89.85	359.56	11221.1	6522.4	121.7	2.00	0.00	6523.3	
11	21286.7	89.85	359.56	11230.0	9999.0	95.0	0.00	0.00	9999.5	PBHL (Nep 10 ST Com #503H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
TGT#1 (Nep 10 ST Com #503H)	11185.0	3000.0	148.7	446671.00	739053.76
FTP1 (Nep 10 ST Com #503H)	11200.0	1.0	172.0	446672.00	739077.00
TGT#2 (Nep 10 ST Com #503H)	11221.0	6500.0	121.9	463171.00	739026.87
PBHL (Nep 10 ST Com #503H)	11230.0	9999.0	95.0	456670.00	739000.00



Lea County, NM (NAD 27 NME)
 Noram #30 State Com #503H
 Plan #2
 10/26/2016 10:21:17



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Neptune 10 State Com

#503H

OH

Design: OH

PVA

19 January, 2017



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3634.0usft (Noram #30)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3634.0usft (Noram #30)
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Neptune 10 State Com		
Site Position:		Northing:	446,603.00 usft
From:	Map	Easting:	740,781.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 31.549 N
		Longitude:	103° 33' 16.943 W
		Grid Convergence:	0.42 °

Well	#503H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/24/2016	7.00	60.07	47,988

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.54



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 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #503H
 TVD Reference: KB = 25' @ 3634.0usft (Noram #30)
 MD Reference: KB = 25' @ 3634.0usft (Noram #30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey Program Date 1/19/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
120.0	1,266.0	Wildfire Gyro (OH)	NSG-CT_D/P	Continuous north-seeking gyro in drillpipe
1,350.0	21,157.0	Learn MWD #1 (OH)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
120.0	0.90	47.00	120.0	0.6	0.7	0.75	0.75	0.00	0.0	0.0
201.0	0.90	0.00	201.0	1.7	1.2	0.89	0.00	-58.02	0.0	0.0
291.0	1.00	348.00	291.0	3.2	1.0	0.25	0.11	-13.33	0.0	0.0
384.0	1.10	353.00	384.0	4.9	0.7	0.15	0.11	5.38	0.0	0.0
479.0	1.30	349.00	478.9	6.8	0.4	0.23	0.21	-4.21	0.0	0.0
574.0	0.60	337.00	573.9	8.3	0.0	0.76	-0.74	-12.63	0.0	0.0
669.0	0.50	333.00	668.9	9.2	-0.4	0.11	-0.11	-4.21	0.0	0.0
763.0	0.80	351.00	762.9	10.2	-0.7	0.38	0.32	19.15	0.0	0.0
857.0	1.40	348.00	856.9	12.0	-1.0	0.64	0.64	-3.19	0.0	0.0
951.0	1.40	343.00	950.9	14.2	-1.6	0.13	0.00	-5.32	0.0	0.0
1,046.0	1.00	332.00	1,045.8	16.0	-2.3	0.48	-0.42	-11.58	0.0	0.0
1,138.0	1.00	342.00	1,137.8	17.5	-2.9	0.19	0.00	10.87	0.0	0.0
1,233.0	0.80	325.00	1,232.8	18.8	-3.6	0.35	-0.21	-17.89	0.0	0.0
1,266.0	0.80	341.00	1,265.8	19.2	-3.8	0.67	0.00	48.48	0.0	0.0
1,350.0	0.50	10.50	1,349.8	20.1	-3.9	0.52	-0.36	35.12	-0.2	-0.1
1,537.0	1.10	169.40	1,536.8	19.2	-3.4	0.84	0.32	84.97	-1.0	0.5
1,725.0	2.30	173.10	1,724.7	13.7	-2.6	0.64	0.64	1.97	-6.6	0.7
1,913.0	2.70	176.00	1,912.5	5.5	-1.9	0.22	0.21	1.54	-14.7	1.2
2,100.0	3.00	143.70	2,099.3	-2.8	1.3	0.86	0.16	-17.27	-21.7	-9.2
2,288.0	2.30	136.50	2,287.1	-9.5	6.8	0.41	-0.37	-3.83	-29.0	-12.5



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PVA

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 Design: OH

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 MD Reference: KB = 25' @ 3634.0usft (Noram #30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

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)
2,476.0	2.90	143.00	2,474.9	-16.1	12.3	0.36	0.32	3.46	-38.8	-8.7
2,663.0	3.30	141.40	2,661.6	-24.1	18.5	0.22	0.21	-0.86	-48.6	-9.9
2,851.0	4.00	149.00	2,849.3	-33.9	25.2	0.45	0.37	4.04	-61.4	-2.7
3,038.0	3.90	143.50	3,035.8	-44.6	32.4	0.21	-0.05	-2.94	-73.7	-9.2
3,226.0	4.50	152.10	3,223.3	-56.3	39.6	0.46	0.32	4.57	-88.0	2.9
3,414.0	4.70	148.40	3,410.7	-69.3	47.1	0.19	0.11	-1.97	-103.0	-3.3
3,601.0	5.00	145.50	3,597.0	-82.6	55.8	0.21	0.16	-1.55	-118.5	-8.9
3,789.0	4.70	164.60	3,784.4	-96.8	62.4	0.87	-0.16	10.16	-130.3	33.2
3,976.0	4.60	165.50	3,970.8	-111.4	66.4	0.07	-0.05	0.48	-144.9	35.4
4,164.0	4.30	162.50	4,158.2	-125.4	70.4	0.20	-0.16	-1.60	-161.2	27.3
4,351.0	2.30	168.70	4,344.9	-135.8	73.2	1.08	-1.07	3.32	-168.0	45.3
4,539.0	3.70	139.80	4,532.6	-144.1	77.9	1.07	0.74	-15.37	-178.3	-43.5
4,726.0	3.80	136.30	4,719.2	-153.2	86.0	0.13	0.05	-1.87	-187.5	-54.7
4,914.0	5.10	146.20	4,906.7	-164.7	95.0	0.80	0.69	5.27	-208.7	-20.5
5,101.0	1.20	210.00	5,093.4	-173.3	98.6	2.51	-2.09	34.12	-116.1	185.7
5,289.0	1.90	171.60	5,281.3	-178.1	98.1	0.65	0.37	-20.43	-211.0	72.2
5,477.0	2.20	172.20	5,469.2	-184.7	99.1	0.16	0.16	0.32	-216.9	74.4
5,663.0	2.10	170.90	5,655.1	-191.6	100.1	0.06	-0.05	-0.70	-225.5	69.4
5,851.0	1.80	161.30	5,843.0	-197.8	101.6	0.24	-0.16	-5.11	-240.3	30.2
6,039.0	2.20	125.90	6,030.8	-202.7	105.4	0.68	0.21	-18.83	-219.3	-116.3
6,226.0	2.10	117.90	6,217.7	-206.4	111.4	0.17	-0.05	-4.28	-204.5	-143.7
6,414.0	1.80	117.00	6,405.6	-209.4	117.0	0.16	-0.16	-0.48	-200.0	-140.7
6,601.0	2.40	150.60	6,592.5	-214.1	121.6	0.72	0.32	17.97	-236.6	-4.9
6,789.0	2.90	158.50	6,780.3	-222.0	125.3	0.33	0.27	4.20	-229.6	26.5
6,976.0	2.30	156.90	6,967.1	-229.8	128.5	0.32	-0.32	-0.86	-224.6	18.8
7,163.0	3.50	148.40	7,153.8	-238.2	132.9	0.68	0.64	-4.55	-220.3	-14.3
7,350.0	2.70	147.20	7,340.6	-246.7	138.3	0.43	-0.43	-0.64	-215.9	-17.9



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PVA

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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)	
7,538.0	2.20	154.20	7,528.4	-253.7	142.3	0.31	-0.27	3.72	-210.3	8.5	
7,725.0	2.30	147.90	7,715.3	-260.1	145.8	0.14	0.05	-3.37	-203.2	-14.0	
7,913.0	1.40	166.20	7,903.2	-265.5	148.4	0.57	-0.48	9.73	-189.4	48.0	
8,100.0	0.40	93.30	8,090.1	-267.8	149.6	0.72	-0.53	-38.98	-95.7	-157.0	
8,288.0	0.40	96.90	8,278.1	-267.9	150.9	0.01	0.00	1.91	-98.5	-139.0	
8,472.0	0.70	112.60	8,462.1	-268.4	152.6	0.18	0.16	8.53	-123.4	-98.1	
8,660.0	0.50	153.00	8,650.1	-269.6	154.0	0.24	-0.11	21.49	-145.1	5.6	
8,847.0	0.90	183.60	8,837.1	-271.8	154.3	0.29	0.21	16.36	-112.2	71.6	
9,038.0	0.70	187.30	9,028.1	-274.4	154.0	0.11	-0.10	1.94	-98.2	70.4	
9,226.0	0.70	67.90	9,216.1	-275.1	155.0	0.64	0.00	-63.51	-12.4	-107.0	
9,413.0	0.70	5.40	9,403.1	-273.6	156.1	0.39	0.00	-33.42	75.8	-53.6	
9,601.0	0.10	327.20	9,591.1	-272.3	156.1	0.33	-0.32	-20.32	77.5	3.0	
9,788.0	1.00	238.40	9,778.0	-273.0	154.7	0.54	0.48	-47.49	-2.2	63.2	
9,976.0	0.70	243.00	9,966.0	-274.4	152.2	0.16	-0.16	2.45	-0.2	49.1	
10,163.0	0.90	246.20	10,153.0	-275.5	149.9	0.11	0.11	1.71	-1.1	35.0	
10,351.0	0.90	190.50	10,341.0	-277.5	148.3	0.45	0.00	-29.63	-20.8	8.7	
10,538.0	1.10	178.90	10,528.0	-280.8	148.0	0.15	0.11	-6.20	-12.7	-2.3	
10,615.0	1.10	181.30	10,604.9	-282.3	148.0	0.06	0.00	3.12	-9.2	-4.6	
10,640.0	0.90	173.20	10,629.9	-282.7	148.0	0.98	-0.80	-32.40	-7.2	-6.6	
10,703.0	0.70	6.80	10,692.9	-282.8	148.1	2.52	-0.32	-264.13	4.7	7.3	
10,734.0	7.40	4.30	10,723.8	-280.6	148.3	21.62	21.61	-8.06	1.4	8.7	
10,781.0	16.60	4.30	10,769.8	-270.9	149.0	19.57	19.57	0.00	-5.7	10.2	
10,828.0	20.80	2.90	10,814.3	-255.9	150.0	8.99	8.94	-2.98	-14.1	11.2	
10,875.0	24.80	359.40	10,857.6	-237.7	150.3	8.98	8.51	-7.45	-21.6	11.4	
10,922.0	28.10	357.80	10,899.7	-216.7	149.8	7.18	7.02	-3.40	-27.0	12.7	
10,969.0	32.40	357.30	10,940.3	-193.1	148.7	9.16	9.15	-1.06	-30.5	14.8	
11,015.0	34.90	357.40	10,978.6	-167.6	147.6	5.44	5.43	0.22	-31.7	17.3	



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PVA

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11,062.0	39.10	359.00	11,016.1	-139.4	146.7	9.17	8.94	3.40	-30.3	20.1
11,109.0	47.50	5.40	11,050.3	-107.2	148.1	20.15	17.87	13.62	-28.0	22.0
11,156.0	51.40	6.60	11,080.8	-71.7	151.8	8.52	8.30	2.55	-27.3	19.2
11,203.0	55.50	4.50	11,108.8	-34.1	155.4	9.43	8.72	-4.47	-25.7	15.3
11,244.1	60.22	2.74	11,130.7	0.6	157.6	12.04	11.49	-4.29	-23.2	13.0
HL Crossing, MD:11244.1', TVD:11130.7', N/S:0.6', E/W:157.6', INC:60.22										
11,250.0	60.90	2.50	11,133.6	5.7	157.9	12.04	11.52	-4.05	-22.8	12.8
11,297.0	66.50	359.90	11,154.4	47.8	158.7	12.90	11.91	-5.53	-19.6	11.8
11,344.0	71.90	358.20	11,171.1	91.7	158.0	11.98	11.49	-3.62	-15.9	12.6
11,391.0	75.60	358.30	11,184.2	136.8	156.6	7.87	7.87	0.21	-11.0	14.0
11,438.0	81.40	1.00	11,193.6	182.9	156.3	13.56	12.34	5.74	-5.3	14.1
11,484.0	87.20	1.30	11,198.2	228.6	157.3	12.63	12.61	0.65	-0.9	12.8
11,504.0	88.70	1.70	11,198.9	248.6	157.8	7.76	7.50	2.00	0.0	12.1
11,559.0	89.60	1.50	11,199.7	303.5	159.3	1.68	1.64	-0.36	1.0	10.1
11,653.0	90.80	1.50	11,199.4	397.5	161.8	1.28	1.28	0.00	1.2	7.0
11,747.0	87.20	0.80	11,201.0	491.5	163.7	3.90	-3.83	-0.74	3.3	4.4
11,841.0	89.40	0.10	11,203.8	585.4	164.4	2.46	2.34	-0.74	6.6	2.9
11,935.0	86.00	357.80	11,207.6	679.3	162.7	4.37	-3.62	-2.45	10.8	3.9
12,028.0	89.70	359.00	11,211.0	772.2	160.1	4.18	3.98	1.29	14.8	5.8
12,122.0	93.40	0.80	11,208.5	866.1	159.9	4.38	3.94	1.91	12.7	5.2
12,216.0	91.10	359.40	11,204.8	960.0	160.1	2.86	-2.45	-1.49	9.5	4.3
12,310.0	90.10	359.00	11,203.8	1,054.0	158.8	1.15	-1.06	-0.43	9.0	4.9
12,404.0	93.30	0.30	11,201.0	1,148.0	158.2	3.67	3.40	1.38	6.7	4.8
12,498.0	93.00	0.60	11,195.9	1,241.8	158.9	0.45	-0.32	0.32	2.0	3.3
12,545.0	92.90	0.60	11,193.5	1,288.8	159.4	0.21	-0.21	0.00	-0.2	2.5
12,592.0	91.70	0.40	11,191.6	1,335.7	159.8	2.59	-2.55	-0.43	-1.9	1.7
12,639.0	92.20	0.10	11,190.0	1,382.7	160.0	1.24	1.06	-0.64	-3.2	1.1



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Neptune 10 State Com
 Well: #503H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #503H
 TVD Reference: KB = 25' @ 3634.0usft (Noram #30)
 MD Reference: KB = 25' @ 3634.0usft (Noram #30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

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)
12,686.0	91.30	0.30	11,188.5	1,429.7	160.2	1.96	-1.91	0.43	-4.4	0.6
12,733.0	90.30	0.30	11,187.9	1,476.7	160.5	2.13	-2.13	0.00	-4.8	0.0
12,780.0	90.00	359.60	11,187.8	1,523.7	160.4	1.62	-0.64	-1.49	-4.7	-0.3
12,827.0	89.80	359.70	11,187.8	1,570.7	160.1	0.48	-0.43	0.21	-4.4	-0.4
12,873.0	89.30	359.70	11,188.2	1,616.7	159.9	1.09	-1.09	0.00	-3.8	-0.5
12,920.0	89.30	359.70	11,188.8	1,663.7	159.6	0.00	0.00	0.00	-3.0	-0.6
12,967.0	88.20	0.40	11,189.8	1,710.6	159.7	2.77	-2.34	1.49	-1.7	-1.0
13,014.0	88.40	0.60	11,191.2	1,757.6	160.1	0.60	0.43	0.43	-0.1	-1.8
13,061.0	88.30	1.00	11,192.5	1,804.6	160.7	0.88	-0.21	0.85	1.5	-2.8
13,108.0	88.20	1.30	11,194.0	1,851.6	161.7	0.67	-0.21	0.64	3.2	-4.1
13,155.0	88.30	1.30	11,195.4	1,898.5	162.8	0.21	0.21	0.00	4.8	-5.5
13,249.0	89.40	1.00	11,197.3	1,992.5	164.6	1.21	1.17	-0.32	7.2	-8.2
13,343.0	89.70	0.80	11,198.0	2,086.5	166.1	0.38	0.32	-0.21	8.4	-10.3
13,437.0	89.20	1.30	11,198.9	2,180.5	167.8	0.75	-0.53	0.53	9.8	-12.8
13,531.0	89.10	0.80	11,200.3	2,274.4	169.6	0.54	-0.11	-0.53	11.7	-15.2
13,624.0	88.60	0.40	11,202.2	2,367.4	170.5	0.69	-0.54	-0.43	14.0	-16.9
13,718.0	88.50	359.60	11,204.6	2,461.4	170.5	0.86	-0.11	-0.85	16.9	-17.7
13,812.0	88.30	359.20	11,207.2	2,555.3	169.5	0.48	-0.21	-0.43	20.0	-17.4
13,906.0	88.10	359.40	11,210.2	2,649.3	168.4	0.30	-0.21	0.21	23.4	-17.0
14,000.0	90.00	358.30	11,211.7	2,743.2	166.5	2.34	2.02	-1.17	25.4	-15.8
14,094.0	89.30	358.30	11,212.3	2,837.2	163.7	0.74	-0.74	0.00	26.5	-13.7
14,188.0	91.80	357.80	11,211.4	2,931.1	160.5	2.71	2.86	-0.53	26.0	-11.3
14,282.0	92.20	357.60	11,208.1	3,025.0	156.8	0.48	0.43	-0.21	23.1	-8.2
14,375.0	90.70	358.00	11,205.8	3,117.9	153.2	1.67	-1.61	0.43	19.9	-5.3
14,469.0	89.70	358.70	11,205.4	3,211.9	150.5	1.30	-1.06	0.74	18.6	-3.4
14,563.0	89.20	357.80	11,206.3	3,305.8	147.6	1.10	-0.53	-0.96	18.5	-1.2
14,657.0	87.70	357.40	11,208.9	3,399.7	143.7	1.65	-1.60	-0.43	20.1	2.0



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #503H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3634.0usft (Noram #30)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3634.0usft (Noram #30)
Well:	#503H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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)
14,751.0	88.80	358.20	11,211.7	3,493.6	140.1	1.45	1.17	0.85	22.0	4.9
14,845.0	89.80	359.20	11,212.9	3,587.5	137.9	1.50	1.06	1.06	22.1	6.3
14,939.0	91.40	359.00	11,211.9	3,681.5	136.5	1.72	1.70	-0.21	20.2	7.1
15,032.0	90.00	359.40	11,210.8	3,774.5	135.2	1.57	-1.51	0.43	18.1	7.6
15,126.0	89.10	0.40	11,211.5	3,868.5	135.0	1.43	-0.96	1.06	17.8	7.1
15,220.0	90.30	1.10	11,212.0	3,962.5	136.2	1.48	1.28	0.74	17.4	5.1
15,314.0	88.50	0.80	11,213.0	4,056.5	137.8	1.94	-1.91	-0.32	17.4	2.8
15,407.0	90.80	1.00	11,213.6	4,149.4	139.3	2.48	2.47	0.22	17.0	0.7
15,501.0	89.90	1.30	11,213.0	4,243.4	141.1	1.01	-0.96	0.32	15.4	-1.9
15,595.0	89.70	1.30	11,213.3	4,337.4	143.3	0.21	-0.21	0.00	14.8	-4.8
15,689.0	89.30	1.30	11,214.1	4,431.4	145.4	0.43	-0.43	0.00	14.6	-7.6
15,783.0	89.90	1.50	11,214.8	4,525.3	147.7	0.67	0.64	0.21	14.3	-10.7
15,876.0	89.60	2.20	11,215.2	4,618.3	150.7	0.82	-0.32	0.75	13.7	-14.4
15,970.0	88.80	359.70	11,216.5	4,712.3	152.3	2.79	-0.85	-2.66	14.1	-16.7
16,064.0	87.60	359.70	11,219.5	4,806.2	151.8	1.28	-1.28	0.00	16.0	-16.9
16,158.0	88.50	359.60	11,222.7	4,900.2	151.2	0.96	0.96	-0.11	18.3	-17.0
16,252.0	90.50	358.50	11,223.5	4,994.1	149.6	2.43	2.13	-1.17	18.1	-16.2
16,345.0	90.70	358.70	11,222.5	5,087.1	147.4	0.30	0.22	0.22	16.2	-14.6
16,439.0	89.60	358.70	11,222.3	5,181.1	145.2	1.17	-1.17	0.00	15.0	-13.2
16,533.0	85.30	357.30	11,226.4	5,274.9	142.0	4.81	-4.57	-1.49	18.2	-10.7
16,627.0	86.60	358.50	11,233.1	5,368.6	138.5	1.88	1.38	1.28	23.8	-8.0
16,721.0	90.60	0.60	11,235.4	5,462.5	137.8	4.81	4.26	2.23	25.1	-8.0
16,815.0	88.80	359.90	11,235.9	5,556.5	138.2	2.05	-1.91	-0.74	24.7	-9.1
16,909.0	92.30	0.10	11,235.0	5,650.5	138.2	3.73	3.72	0.21	22.8	-9.8
17,002.0	93.40	0.60	11,230.3	5,743.4	138.8	1.30	1.18	0.54	17.2	-11.1
17,096.0	93.10	359.90	11,225.0	5,837.2	139.2	0.81	-0.32	-0.74	10.9	-12.2
17,190.0	92.20	359.90	11,220.7	5,931.1	139.0	0.96	-0.96	0.00	5.6	-12.8



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Neptune 10 State Com
 Well: #503H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #503H
 TVD Reference: KB = 25' @ 3634.0usft (Noram #30)
 MD Reference: KB = 25' @ 3634.0usft (Noram #30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

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)	
17,284.0	89.60	359.90	11,219.2	6,025.1	138.8	2.77	-2.77	0.00	3.1	-13.3	
17,378.0	89.30	0.40	11,220.1	6,119.1	139.1	0.62	-0.32	0.53	3.0	-14.3	
17,472.0	89.30	0.80	11,221.2	6,213.1	140.1	0.43	0.00	0.43	3.2	-16.0	
17,565.0	88.50	0.60	11,223.0	6,306.1	141.2	0.89	-0.86	-0.22	4.0	-17.9	
17,659.0	90.20	0.10	11,224.1	6,400.1	141.8	1.89	1.81	-0.53	4.1	-19.1	
17,753.0	89.60	0.30	11,224.3	6,494.1	142.1	0.67	-0.64	0.21	3.3	-20.2	
17,847.0	89.50	0.10	11,225.0	6,588.1	142.4	0.24	-0.11	-0.21	3.7	-21.2	
17,941.0	88.70	359.90	11,226.5	6,682.1	142.4	0.88	-0.85	-0.21	4.9	-22.0	
18,035.0	92.10	359.90	11,225.8	6,776.0	142.3	3.62	3.62	0.00	4.0	-22.5	
18,128.0	91.40	358.30	11,223.0	6,869.0	140.8	1.88	-0.75	-1.72	0.9	-21.8	
18,222.0	90.30	358.00	11,221.6	6,962.9	137.8	1.21	-1.17	-0.32	-0.7	-19.5	
18,316.0	90.70	358.20	11,220.8	7,056.9	134.7	0.48	0.43	0.21	-1.8	-17.1	
18,410.0	90.50	358.50	11,219.8	7,150.8	132.0	0.38	-0.21	0.32	-3.0	-15.1	
18,503.0	89.20	358.30	11,220.0	7,243.8	129.4	1.41	-1.40	-0.22	-3.0	-13.2	
18,597.0	90.30	358.50	11,220.4	7,337.7	126.7	1.19	1.17	0.21	-2.8	-11.3	
18,691.0	93.60	358.70	11,217.2	7,431.6	124.4	3.52	3.51	0.21	-6.2	-9.7	
18,785.0	90.50	358.70	11,213.9	7,525.5	122.3	3.30	-3.30	0.00	-9.8	-8.3	
18,878.0	89.00	358.30	11,214.3	7,618.5	119.9	1.67	-1.61	-0.43	-9.7	-6.6	
18,972.0	87.50	358.20	11,217.1	7,712.4	117.0	1.60	-1.60	-0.11	-7.0	-4.5	
19,066.0	87.70	358.00	11,221.1	7,806.3	113.9	0.30	0.21	-0.21	-3.3	-2.1	
19,161.0	88.00	358.30	11,224.6	7,901.2	110.8	0.45	0.32	0.32	0.0	0.3	
19,255.0	89.20	358.30	11,226.9	7,995.1	108.0	1.28	1.28	0.00	2.0	2.3	
19,349.0	90.80	359.20	11,226.9	8,089.1	106.0	1.95	1.70	0.96	1.8	3.7	
19,443.0	90.00	358.90	11,226.3	8,183.1	104.4	0.91	-0.85	-0.32	0.9	4.5	
19,537.0	91.90	359.40	11,224.7	8,277.0	103.0	2.09	2.02	0.53	-0.9	5.2	
19,631.0	89.30	358.50	11,223.7	8,371.0	101.3	2.93	-2.77	-0.96	-2.1	6.2	
19,725.0	89.60	358.00	11,224.6	8,464.9	98.4	0.62	0.32	-0.53	-1.4	8.3	



EOG Resources, Inc.
PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Neptune 10 State Com
Well: #503H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #503H
TVD Reference: KB = 25' @ 3634.0usft (Noram #30)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)	
19,819.0	89.60	357.80	11,225.3	8,558.9	95.0	0.21	0.00	-0.21	-1.0	11.1	
19,912.0	89.20	357.40	11,226.3	8,651.8	91.1	0.61	-0.43	-0.43	-0.3	14.2	
20,006.0	90.00	358.50	11,226.9	8,745.7	87.7	1.45	0.85	1.17	0.1	16.9	
20,100.0	90.50	358.20	11,226.5	8,839.7	85.0	0.62	0.53	-0.32	-0.5	18.9	
20,195.0	89.60	359.00	11,226.4	8,934.7	82.7	1.27	-0.95	0.84	-0.9	20.5	
20,288.0	91.50	359.70	11,225.5	9,027.6	81.7	2.18	2.04	0.75	-2.0	20.8	
20,382.0	91.50	0.10	11,223.1	9,121.6	81.5	0.43	0.00	0.43	-4.7	20.2	
20,476.0	90.00	0.80	11,221.9	9,215.6	82.2	1.76	-1.60	0.74	-6.2	18.8	
20,570.0	89.50	0.80	11,222.3	9,309.6	83.5	0.53	-0.53	0.00	-6.0	16.7	
20,664.0	89.40	1.00	11,223.2	9,403.6	85.0	0.24	-0.11	0.21	-5.3	14.5	
20,758.0	87.80	0.80	11,225.5	9,497.5	86.5	1.72	-1.70	-0.21	-3.2	12.4	
20,852.0	88.30	0.80	11,228.7	9,591.5	87.8	0.53	0.53	0.00	-0.3	10.3	
20,946.0	90.50	0.30	11,229.6	9,685.5	88.7	2.40	2.34	-0.53	0.4	8.7	
21,040.0	89.50	359.90	11,229.6	9,779.5	88.9	1.15	-1.06	-0.43	0.2	7.8	
Last MWD Survey											
21,157.0	89.50	359.90	11,230.7	9,896.4	88.7	0.00	0.00	0.00	0.9	7.1	
Projection To Bit											

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,244.1	11,130.7	0.6	157.6	HL Crossing, MD:11244.1', TVD:11130.7', N/S:0.6', E/W:157.6', INC:60.22
21,040.0	11,229.6	9,779.5	88.9	Last MWD Survey
21,157.0	11,230.7	9,896.4	88.7	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____