

30-025-45138

OCD - HOBBS  
08/24/2018  
RECEIVED



Lea County, NM (NAD 83 NME)

Heartthrob 17 state #703H

Plan #0.1

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: #703H

KB ~ 25 @ 3571.0usft 3546.0  
Northing 441516.00 Easting 768331.00 Latitude 32° 12' 42.026 N Longitude 103° 35' 57.788 W

Azimuths to Grid North  
True North: -0.39°  
Magnetic North: 6.45°

Magnetic Field  
Strength: 47805.3nT  
Dip Angle: 60.03°  
Date: 8/23/2018  
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.45°  
To convert a Magnetic Direction to a True Direction, Add 6.84° East  
To convert a True Direction to a Grid Direction, Subtract 0.39°

#### SECTION DETAILS

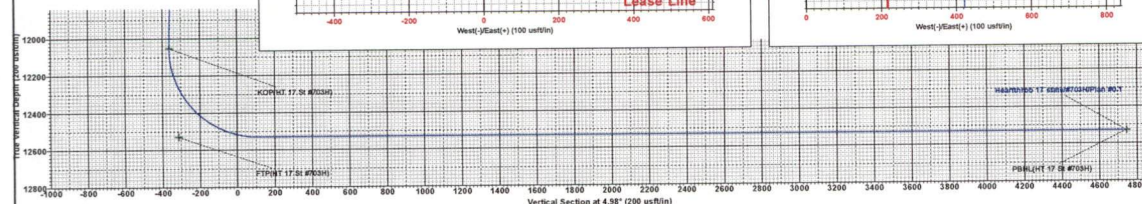
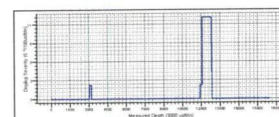
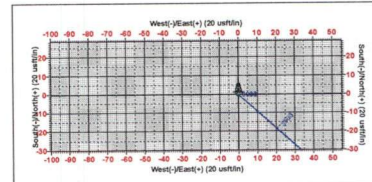
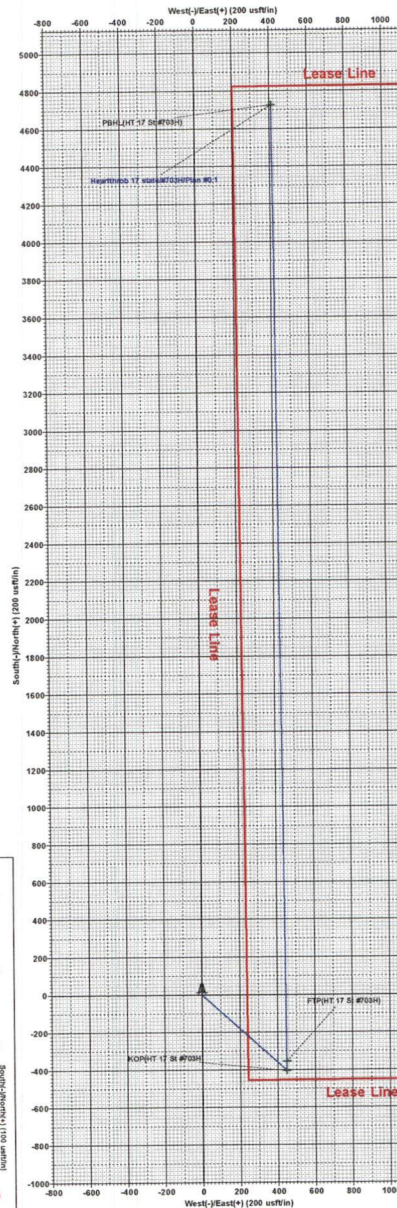
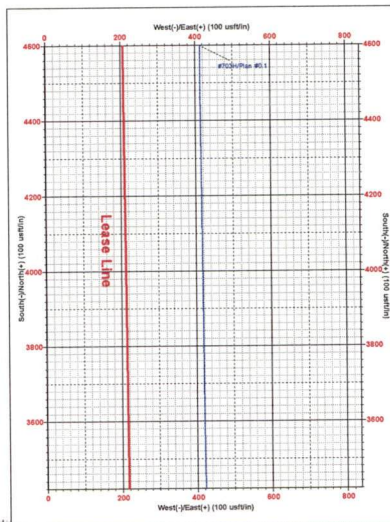
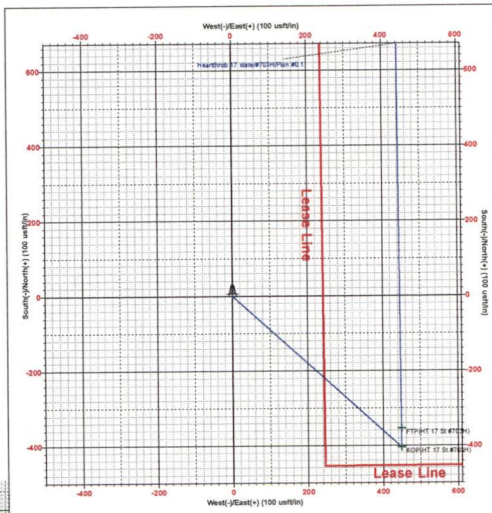
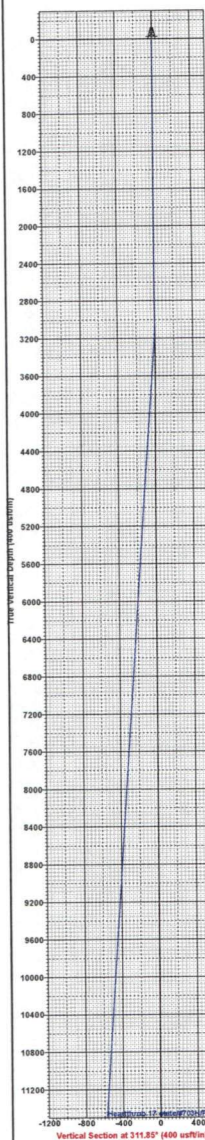
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3195.1	3.90	131.85	3195.0	-4.4	4.9	2.00	131.85	-4.0	
4	11876.8	3.90	131.85	11856.5	-398.6	445.1	0.00	0.00	-358.4	
5	12071.9	0.00	0.00	12051.5	-403.0	450.0	2.00	180.00	-362.4	KOP(HT 17 St #703H)
6	12821.9	90.00	359.58	12529.0	74.4	446.5	12.00	359.58	112.9	
7	17473.6	90.00	359.58	12529.0	4726.0	412.0	0.00	0.00	4743.9	PBHL(HT 17 St #703H)

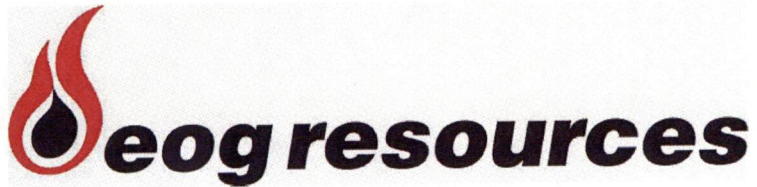
#### CASING DETAILS

No casing data is available

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(HT 17 St #703H)	12051.5	-403.0	450.0	441113.00	768781.00
FTP(HT 17 St #703H)	12529.0	-353.0	450.0	441163.00	768781.00
PBHL(HT 17 St #703H)	12529.0	4726.0	412.0	446242.00	768743.00





## **EOG Resources - Midland**

Lea County, NM (NAD 83 NME)

Heartthrob 17 state

#703H

OH

Plan: Plan #0.1

## **Standard Planning Report**

23 August, 2018

Database: EDM 5000.14  
Company: EOG Resources - Midland  
Project: Lea County, NM (NAD 83 NME)  
Site: Heartthrob 17 state  
Well: #703H  
Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #703H  
TVD Reference: KB = 25 @ 3571.0usft  
MD Reference: KB = 25 @ 3571.0usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

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 Heartthrob 17 state

Site Position: Northing: 441,886.00 usft Latitude: 32° 12' 45.730 N  
From: Map Easting: 767,698.00 usft Longitude: 103° 36' 5.126 W  
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.39 °

Well #703H

Well Position +N/-S -370.0 usft Northing: 441,516.00 usft Latitude: 32° 12' 42.026 N  
+E/-W 633.0 usft Easting: 768,331.00 usft Longitude: 103° 35' 57.788 W  
Position Uncertainty 0.0 usft Wellhead Elevation: Ground Level: 3,546.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/23/2018	6.84	60.03	47,805.30617576

Design Plan #0.1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	4.98

Plan Survey Tool Program Date 8/23/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,473.6 Plan #0.1 (OH)	MWD	
			OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,195.1	3.90	131.85	3,195.0	-4.4	4.9	2.00	2.00	0.00	131.85	
11,876.8	3.90	131.85	11,856.5	-398.6	445.1	0.00	0.00	0.00	0.00	
12,071.9	0.00	0.01	12,051.5	-403.0	450.0	2.00	-2.00	0.00	180.00	KOP(HT 17 St #703H)
12,821.9	90.00	359.58	12,529.0	74.4	446.5	12.00	12.00	-0.06	359.58	
17,473.6	90.00	359.58	12,529.0	4,726.0	412.0	0.00	0.00	0.00	0.00	PBHL(HT 17 St #703H)



# Planning Report

Database: EDM 5000.14  
 Company: EOG Resources - Midland  
 Project: Lea County, NM (NAD 83 NME)  
 Site: Heartthrob 17 state  
 Well: #703H  
 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #703H  
 TVD Reference: KB = 25 @ 3571.0usft  
 MD Reference: KB = 25 @ 3571.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	2.00	131.85	3,100.0	-1.2	1.3	-1.0	2.00	2.00	0.00
3,195.1	3.90	131.85	3,195.0	-4.4	4.9	-4.0	2.00	2.00	0.00
3,200.0	3.90	131.85	3,199.8	-4.7	5.2	-4.2	0.00	0.00	0.00
3,300.0	3.90	131.85	3,299.6	-9.2	10.3	-8.3	0.00	0.00	0.00
3,400.0	3.90	131.85	3,399.4	-13.7	15.3	-12.3	0.00	0.00	0.00
3,500.0	3.90	131.85	3,499.1	-18.3	20.4	-16.4	0.00	0.00	0.00
3,600.0	3.90	131.85	3,598.9	-22.8	25.5	-20.5	0.00	0.00	0.00
3,700.0	3.90	131.85	3,698.7	-27.4	30.5	-24.6	0.00	0.00	0.00
3,800.0	3.90	131.85	3,798.4	-31.9	35.6	-28.7	0.00	0.00	0.00
3,900.0	3.90	131.85	3,898.2	-36.4	40.7	-32.8	0.00	0.00	0.00
4,000.0	3.90	131.85	3,998.0	-41.0	45.8	-36.8	0.00	0.00	0.00
4,100.0	3.90	131.85	4,097.8	-45.5	50.8	-40.9	0.00	0.00	0.00
4,200.0	3.90	131.85	4,197.5	-50.1	55.9	-45.0	0.00	0.00	0.00
4,300.0	3.90	131.85	4,297.3	-54.6	61.0	-49.1	0.00	0.00	0.00
4,400.0	3.90	131.85	4,397.1	-59.1	66.0	-53.2	0.00	0.00	0.00
4,500.0	3.90	131.85	4,496.8	-63.7	71.1	-57.3	0.00	0.00	0.00
4,600.0	3.90	131.85	4,596.6	-68.2	76.2	-61.3	0.00	0.00	0.00
4,700.0	3.90	131.85	4,696.4	-72.8	81.2	-65.4	0.00	0.00	0.00
4,800.0	3.90	131.85	4,796.1	-77.3	86.3	-69.5	0.00	0.00	0.00
4,900.0	3.90	131.85	4,895.9	-81.8	91.4	-73.6	0.00	0.00	0.00
5,000.0	3.90	131.85	4,995.7	-86.4	96.4	-77.7	0.00	0.00	0.00
5,100.0	3.90	131.85	5,095.4	-90.9	101.5	-81.8	0.00	0.00	0.00
5,200.0	3.90	131.85	5,195.2	-95.5	106.6	-85.8	0.00	0.00	0.00

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Survey Calculation Method: Minimum Curvature

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	3.90	131.85	5,295.0	-100.0	111.7	-89.9	0.00	0.00	0.00
5,400.0	3.90	131.85	5,394.7	-104.5	116.7	-94.0	0.00	0.00	0.00
5,500.0	3.90	131.85	5,494.5	-109.1	121.8	-98.1	0.00	0.00	0.00
5,600.0	3.90	131.85	5,594.3	-113.6	126.9	-102.2	0.00	0.00	0.00
5,700.0	3.90	131.85	5,694.0	-118.1	131.9	-106.2	0.00	0.00	0.00
5,800.0	3.90	131.85	5,793.8	-122.7	137.0	-110.3	0.00	0.00	0.00
5,900.0	3.90	131.85	5,893.6	-127.2	142.1	-114.4	0.00	0.00	0.00
6,000.0	3.90	131.85	5,993.3	-131.8	147.1	-118.5	0.00	0.00	0.00
6,100.0	3.90	131.85	6,093.1	-136.3	152.2	-122.6	0.00	0.00	0.00
6,200.0	3.90	131.85	6,192.9	-140.8	157.3	-126.7	0.00	0.00	0.00
6,300.0	3.90	131.85	6,292.7	-145.4	162.3	-130.7	0.00	0.00	0.00
6,400.0	3.90	131.85	6,392.4	-149.9	167.4	-134.8	0.00	0.00	0.00
6,500.0	3.90	131.85	6,492.2	-154.5	172.5	-138.9	0.00	0.00	0.00
6,600.0	3.90	131.85	6,592.0	-159.0	177.6	-143.0	0.00	0.00	0.00
6,700.0	3.90	131.85	6,691.7	-163.5	182.6	-147.1	0.00	0.00	0.00
6,800.0	3.90	131.85	6,791.5	-168.1	187.7	-151.2	0.00	0.00	0.00
6,900.0	3.90	131.85	6,891.3	-172.6	192.8	-155.2	0.00	0.00	0.00
7,000.0	3.90	131.85	6,991.0	-177.2	197.8	-159.3	0.00	0.00	0.00
7,100.0	3.90	131.85	7,090.8	-181.7	202.9	-163.4	0.00	0.00	0.00
7,200.0	3.90	131.85	7,190.6	-186.2	208.0	-167.5	0.00	0.00	0.00
7,300.0	3.90	131.85	7,290.3	-190.8	213.0	-171.6	0.00	0.00	0.00
7,400.0	3.90	131.85	7,390.1	-195.3	218.1	-175.6	0.00	0.00	0.00
7,500.0	3.90	131.85	7,489.9	-199.9	223.2	-179.7	0.00	0.00	0.00
7,600.0	3.90	131.85	7,589.6	-204.4	228.2	-183.8	0.00	0.00	0.00
7,700.0	3.90	131.85	7,689.4	-208.9	233.3	-187.9	0.00	0.00	0.00
7,800.0	3.90	131.85	7,789.2	-213.5	238.4	-192.0	0.00	0.00	0.00
7,900.0	3.90	131.85	7,888.9	-218.0	243.5	-196.1	0.00	0.00	0.00
8,000.0	3.90	131.85	7,988.7	-222.6	248.5	-200.1	0.00	0.00	0.00
8,100.0	3.90	131.85	8,088.5	-227.1	253.6	-204.2	0.00	0.00	0.00
8,200.0	3.90	131.85	8,188.2	-231.6	258.7	-208.3	0.00	0.00	0.00
8,300.0	3.90	131.85	8,288.0	-236.2	263.7	-212.4	0.00	0.00	0.00
8,400.0	3.90	131.85	8,387.8	-240.7	268.8	-216.5	0.00	0.00	0.00
8,500.0	3.90	131.85	8,487.6	-245.3	273.9	-220.6	0.00	0.00	0.00
8,600.0	3.90	131.85	8,587.3	-249.8	278.9	-224.6	0.00	0.00	0.00
8,700.0	3.90	131.85	8,687.1	-254.3	284.0	-228.7	0.00	0.00	0.00
8,800.0	3.90	131.85	8,786.9	-258.9	289.1	-232.8	0.00	0.00	0.00
8,900.0	3.90	131.85	8,886.6	-263.4	294.1	-236.9	0.00	0.00	0.00
9,000.0	3.90	131.85	8,986.4	-268.0	299.2	-241.0	0.00	0.00	0.00
9,100.0	3.90	131.85	9,086.2	-272.5	304.3	-245.0	0.00	0.00	0.00
9,200.0	3.90	131.85	9,185.9	-277.0	309.4	-249.1	0.00	0.00	0.00
9,300.0	3.90	131.85	9,285.7	-281.6	314.4	-253.2	0.00	0.00	0.00
9,400.0	3.90	131.85	9,385.5	-286.1	319.5	-257.3	0.00	0.00	0.00
9,500.0	3.90	131.85	9,485.2	-290.7	324.6	-261.4	0.00	0.00	0.00
9,600.0	3.90	131.85	9,585.0	-295.2	329.6	-265.5	0.00	0.00	0.00
9,700.0	3.90	131.85	9,684.8	-299.7	334.7	-269.5	0.00	0.00	0.00
9,800.0	3.90	131.85	9,784.5	-304.3	339.8	-273.6	0.00	0.00	0.00
9,900.0	3.90	131.85	9,884.3	-308.8	344.8	-277.7	0.00	0.00	0.00
10,000.0	3.90	131.85	9,984.1	-313.4	349.9	-281.8	0.00	0.00	0.00
10,100.0	3.90	131.85	10,083.8	-317.9	355.0	-285.9	0.00	0.00	0.00
10,200.0	3.90	131.85	10,183.6	-322.4	360.0	-290.0	0.00	0.00	0.00
10,300.0	3.90	131.85	10,283.4	-327.0	365.1	-294.0	0.00	0.00	0.00
10,400.0	3.90	131.85	10,383.1	-331.5	370.2	-298.1	0.00	0.00	0.00
10,500.0	3.90	131.85	10,482.9	-336.1	375.3	-302.2	0.00	0.00	0.00
10,600.0	3.90	131.85	10,582.7	-340.6	380.3	-306.3	0.00	0.00	0.00



# Planning Report

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Site: Heartthrob 17 state  
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Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #703H  
TVD Reference: KB = 25 @ 3571.0usft  
MD Reference: KB = 25 @ 3571.0usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,700.0	3.90	131.85	10,682.5	-345.1	385.4	-310.4	0.00	0.00	0.00
10,800.0	3.90	131.85	10,782.2	-349.7	390.5	-314.5	0.00	0.00	0.00
10,900.0	3.90	131.85	10,882.0	-354.2	395.5	-318.5	0.00	0.00	0.00
11,000.0	3.90	131.85	10,981.8	-358.8	400.6	-322.6	0.00	0.00	0.00
11,100.0	3.90	131.85	11,081.5	-363.3	405.7	-326.7	0.00	0.00	0.00
11,200.0	3.90	131.85	11,181.3	-367.8	410.7	-330.8	0.00	0.00	0.00
11,300.0	3.90	131.85	11,281.1	-372.4	415.8	-334.9	0.00	0.00	0.00
11,400.0	3.90	131.85	11,380.8	-376.9	420.9	-338.9	0.00	0.00	0.00
11,500.0	3.90	131.85	11,480.6	-381.5	426.0	-343.0	0.00	0.00	0.00
11,600.0	3.90	131.85	11,580.4	-386.0	431.0	-347.1	0.00	0.00	0.00
11,700.0	3.90	131.85	11,680.1	-390.5	436.1	-351.2	0.00	0.00	0.00
11,800.0	3.90	131.85	11,779.9	-395.1	441.2	-355.3	0.00	0.00	0.00
11,876.8	3.90	131.85	11,856.5	-398.6	445.1	-358.4	0.00	0.00	0.00
11,900.0	3.44	131.85	11,879.7	-399.6	446.2	-359.3	2.00	-2.00	0.00
12,000.0	1.44	131.85	11,979.6	-402.4	449.3	-361.9	2.00	-2.00	0.00
12,071.9	0.00	0.01	12,051.5	-403.0	450.0	-362.4	2.00	-2.00	0.00
<b>KOP(HT 17 St #703H)</b>									
12,075.0	0.37	359.58	12,054.6	-403.0	450.0	-362.4	12.00	12.00	0.00
12,100.0	3.37	359.58	12,079.6	-402.2	450.0	-361.6	12.00	12.00	0.00
12,125.0	6.37	359.58	12,104.5	-400.1	450.0	-359.5	12.00	12.00	0.00
12,150.0	9.37	359.58	12,129.2	-396.6	450.0	-356.1	12.00	12.00	0.00
12,175.0	12.37	359.58	12,153.8	-391.9	449.9	-351.4	12.00	12.00	0.00
12,200.0	15.37	359.58	12,178.0	-385.9	449.9	-345.4	12.00	12.00	0.00
12,225.0	18.37	359.58	12,202.0	-378.7	449.8	-338.2	12.00	12.00	0.00
12,250.0	21.37	359.58	12,225.5	-370.2	449.8	-329.7	12.00	12.00	0.00
12,275.0	24.37	359.58	12,248.5	-360.5	449.7	-320.0	12.00	12.00	0.00
12,300.0	27.37	359.58	12,271.0	-349.6	449.6	-309.2	12.00	12.00	0.00
12,325.0	30.37	359.58	12,292.9	-337.5	449.5	-297.2	12.00	12.00	0.00
12,350.0	33.37	359.58	12,314.1	-324.3	449.4	-284.0	12.00	12.00	0.00
12,375.0	36.37	359.58	12,334.6	-310.0	449.3	-269.8	12.00	12.00	0.00
12,400.0	39.37	359.58	12,354.4	-294.7	449.2	-254.5	12.00	12.00	0.00
12,425.0	42.37	359.58	12,373.3	-278.3	449.1	-238.2	12.00	12.00	0.00
12,450.0	45.37	359.58	12,391.3	-261.0	448.9	-221.0	12.00	12.00	0.00
12,475.0	48.37	359.58	12,408.4	-242.7	448.8	-202.8	12.00	12.00	0.00
<b>FTP(HT 17 St #703H)</b>									
12,500.0	51.37	359.58	12,424.5	-223.6	448.7	-183.8	12.00	12.00	0.00
12,525.0	54.37	359.58	12,439.6	-203.7	448.5	-164.0	12.00	12.00	0.00
12,550.0	57.37	359.58	12,453.6	-183.0	448.4	-143.4	12.00	12.00	0.00
12,575.0	60.37	359.58	12,466.5	-161.6	448.2	-122.1	12.00	12.00	0.00
12,600.0	63.37	359.58	12,478.3	-139.6	448.0	-100.1	12.00	12.00	0.00
12,625.0	66.37	359.58	12,488.9	-116.9	447.9	-77.6	12.00	12.00	0.00
12,650.0	69.37	359.58	12,498.3	-93.8	447.7	-54.5	12.00	12.00	0.00
12,675.0	72.37	359.58	12,506.5	-70.2	447.5	-31.0	12.00	12.00	0.00
12,700.0	75.37	359.58	12,513.5	-46.2	447.4	-7.1	12.00	12.00	0.00
12,725.0	78.37	359.58	12,519.2	-21.8	447.2	17.1	12.00	12.00	0.00
12,750.0	81.37	359.58	12,523.6	2.8	447.0	41.6	12.00	12.00	0.00
12,775.0	84.37	359.58	12,526.7	27.6	446.8	66.3	12.00	12.00	0.00
12,800.0	87.37	359.58	12,528.5	52.5	446.6	91.1	12.00	12.00	0.00
12,821.9	90.00	359.58	12,529.0	74.4	446.5	112.9	12.00	12.00	0.00
12,900.0	90.00	359.58	12,529.0	152.5	445.9	190.7	0.00	0.00	0.00
13,000.0	90.00	359.58	12,529.0	252.5	445.1	290.2	0.00	0.00	0.00
13,100.0	90.00	359.58	12,529.0	352.5	444.4	389.8	0.00	0.00	0.00
13,200.0	90.00	359.58	12,529.0	452.5	443.7	489.3	0.00	0.00	0.00
13,300.0	90.00	359.58	12,529.0	552.5	442.9	588.9	0.00	0.00	0.00

Database: EDM 5000.14  
Company: EOG Resources - Midland  
Project: Lea County, NM (NAD 83 NME)  
Site: Heartthrob 17 state  
Well: #703H  
Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #703H  
TVD Reference: KB = 25 @ 3571.0usft  
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North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	90.00	359.58	12,529.0	652.5	442.2	688.4	0.00	0.00	0.00
13,500.0	90.00	359.58	12,529.0	752.5	441.4	788.0	0.00	0.00	0.00
13,600.0	90.00	359.58	12,529.0	852.5	440.7	887.6	0.00	0.00	0.00
13,700.0	90.00	359.58	12,529.0	952.5	440.0	987.1	0.00	0.00	0.00
13,800.0	90.00	359.58	12,529.0	1,052.5	439.2	1,086.7	0.00	0.00	0.00
13,900.0	90.00	359.58	12,529.0	1,152.5	438.5	1,186.2	0.00	0.00	0.00
14,000.0	90.00	359.58	12,529.0	1,252.5	437.7	1,285.8	0.00	0.00	0.00
14,100.0	90.00	359.58	12,529.0	1,352.5	437.0	1,385.3	0.00	0.00	0.00
14,200.0	90.00	359.58	12,529.0	1,452.5	436.3	1,484.9	0.00	0.00	0.00
14,300.0	90.00	359.58	12,529.0	1,552.5	435.5	1,584.4	0.00	0.00	0.00
14,400.0	90.00	359.58	12,529.0	1,652.5	434.8	1,684.0	0.00	0.00	0.00
14,500.0	90.00	359.58	12,529.0	1,752.5	434.0	1,783.6	0.00	0.00	0.00
14,600.0	90.00	359.58	12,529.0	1,852.5	433.3	1,883.1	0.00	0.00	0.00
14,700.0	90.00	359.58	12,529.0	1,952.5	432.5	1,982.7	0.00	0.00	0.00
14,800.0	90.00	359.58	12,529.0	2,052.5	431.8	2,082.2	0.00	0.00	0.00
14,900.0	90.00	359.58	12,529.0	2,152.5	431.1	2,181.8	0.00	0.00	0.00
15,000.0	90.00	359.58	12,529.0	2,252.5	430.3	2,281.3	0.00	0.00	0.00
15,100.0	90.00	359.58	12,529.0	2,352.5	429.6	2,380.9	0.00	0.00	0.00
15,200.0	90.00	359.58	12,529.0	2,452.5	428.8	2,480.4	0.00	0.00	0.00
15,300.0	90.00	359.58	12,529.0	2,552.5	428.1	2,580.0	0.00	0.00	0.00
15,400.0	90.00	359.58	12,529.0	2,652.5	427.4	2,679.5	0.00	0.00	0.00
15,500.0	90.00	359.58	12,529.0	2,752.5	426.6	2,779.1	0.00	0.00	0.00
15,600.0	90.00	359.58	12,529.0	2,852.4	425.9	2,878.7	0.00	0.00	0.00
15,700.0	90.00	359.58	12,529.0	2,952.4	425.1	2,978.2	0.00	0.00	0.00
15,800.0	90.00	359.58	12,529.0	3,052.4	424.4	3,077.8	0.00	0.00	0.00
15,900.0	90.00	359.58	12,529.0	3,152.4	423.7	3,177.3	0.00	0.00	0.00
16,000.0	90.00	359.58	12,529.0	3,252.4	422.9	3,276.9	0.00	0.00	0.00
16,100.0	90.00	359.58	12,529.0	3,352.4	422.2	3,376.4	0.00	0.00	0.00
16,200.0	90.00	359.58	12,529.0	3,452.4	421.4	3,476.0	0.00	0.00	0.00
16,300.0	90.00	359.58	12,529.0	3,552.4	420.7	3,575.5	0.00	0.00	0.00
16,400.0	90.00	359.58	12,529.0	3,652.4	420.0	3,675.1	0.00	0.00	0.00
16,500.0	90.00	359.58	12,529.0	3,752.4	419.2	3,774.7	0.00	0.00	0.00
16,600.0	90.00	359.58	12,529.0	3,852.4	418.5	3,874.2	0.00	0.00	0.00
16,700.0	90.00	359.58	12,529.0	3,952.4	417.7	3,973.8	0.00	0.00	0.00
16,800.0	90.00	359.58	12,529.0	4,052.4	417.0	4,073.3	0.00	0.00	0.00
16,900.0	90.00	359.58	12,529.0	4,152.4	416.2	4,172.9	0.00	0.00	0.00
17,000.0	90.00	359.58	12,529.0	4,252.4	415.5	4,272.4	0.00	0.00	0.00
17,100.0	90.00	359.58	12,529.0	4,352.4	414.8	4,372.0	0.00	0.00	0.00
17,200.0	90.00	359.58	12,529.0	4,452.4	414.0	4,471.5	0.00	0.00	0.00
17,300.0	90.00	359.58	12,529.0	4,552.4	413.3	4,571.1	0.00	0.00	0.00
17,400.0	90.00	359.58	12,529.0	4,652.4	412.5	4,670.6	0.00	0.00	0.00
17,473.6	90.00	359.58	12,529.0	4,726.0	412.0	4,743.9	0.00	0.00	0.00

PBHL(HT 17 St #703H)

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 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

#### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(HT 17 St #703H) - plan hits target center - Point	0.00	0.01	12,051.5	-403.0	450.0	441,113.00	768,781.00	32° 12' 38.007 N	103° 35' 52.583 W
FTP(HT 17 St #703H) - plan misses target center by 163.4usft at 12475.0usft MD (12408.4 TVD, -242.7 N, 448.8 E) - Point	0.00	0.01	12,529.0	-353.0	450.0	441,163.00	768,781.00	32° 12' 38.502 N	103° 35' 52.579 W
PBHL(HT 17 St #703H) - plan hits target center - Point	0.00	0.01	12,529.0	4,726.0	412.0	446,242.00	768,743.00	32° 13' 28.763 N	103° 35' 52.616 W