eog resources

Lea County, NM (NAD 83 NME)

Nautilus 16 State Com #713H

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

Azimuths to Grid North
True North: -0.46°
Magnetic North: 6.38°

Magnetic Field
Strength: 47787.7nT
Dip Angle: 59.91°
Date: 1/10/2018
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.38°
To convert a Magnetic Direction to a True Direction, Add 6.83° East
To convert a True Direction to a Grid Direction, Subtract 0.46°

WELL DETAILS: #713H

3324.0
KB = 25 @ 3349.0usft

Northing	Easting	Latitude	Longitude
383077.00	808032.00	32° 3' 0.849 N	103° 28' 21.144 W

SECTION DETAILS

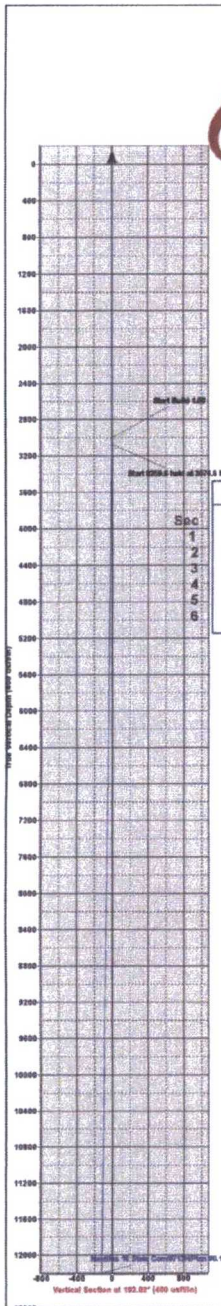
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3074.6	0.75	12.02	3074.6	0.5	0.1	1.00	12.02	-0.5	
4	12334.3	0.75	12.02	12333.5	118.4	25.2	0.00	0.00	-118.1	
5	13090.3	90.00	179.50	12817.0	-359.0	30.7	12.00	167.48	359.4	
6	17612.5	90.00	179.50	12817.0	-4881.0	70.0	0.00	0.00	4881.5	PBHL(Nautilus 16 Fed Com #713H)

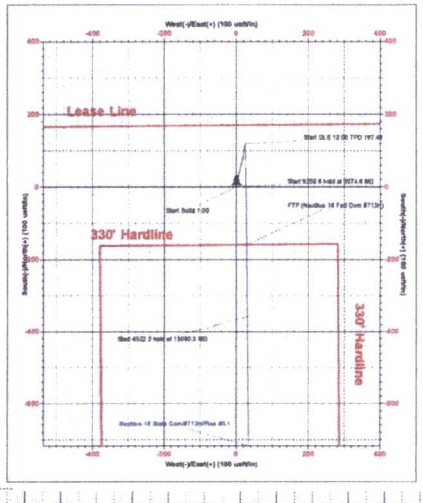
CASING DETAILS

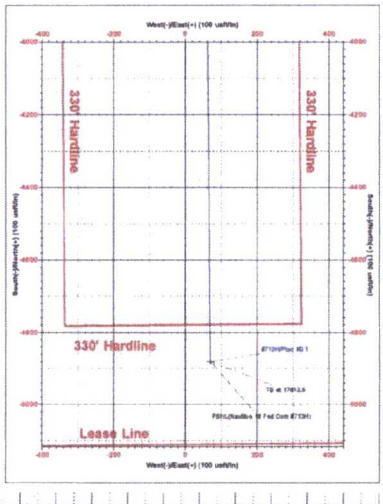
No casing data is available

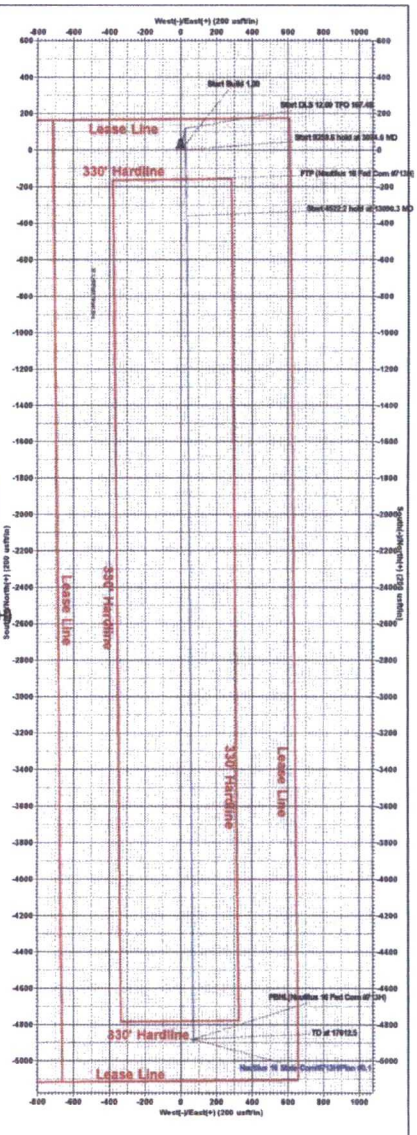
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

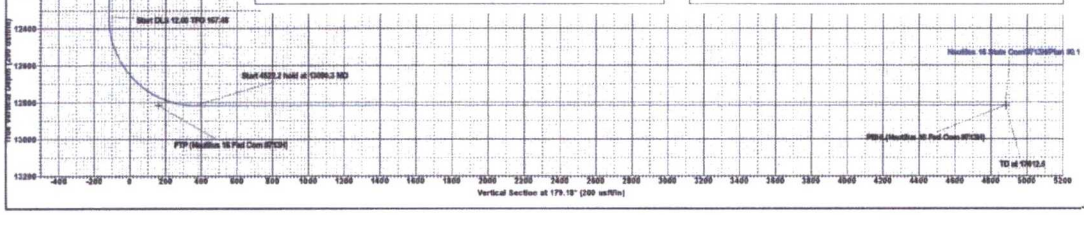
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (Nautilus 16 Fed Com #713H)	12817.0	-159.0	29.0	382918.00	808061.00
PBHL(Nautilus 16 Fed Com #713H)	12817.0	-4881.0	70.0	378196.00	808102.00

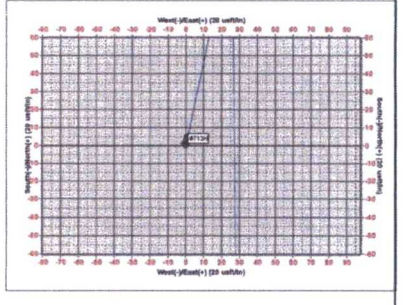












EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Nautilus 16 State Com
#713H

OH

Plan: Plan #0.1

Standard Planning Report

10 January, 2018

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #713H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3349.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3349.0usft
Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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 Nautilus 16 State Com

Site Position:		**Northing:**	383,047.00 usft	**Latitude:**	32° 3' 0.681 N
From:	Map	**Easting:**	806,402.00 usft	**Longitude:**	103° 28' 40.085 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.45 °

Well #713H

Well Position	**+N/-S**	30.0 usft	**Northing:**	383,077.00 usft	**Latitude:**	32° 3' 0.849 N
	+E/-W	1,630.0 usft	**Easting:**	808,032.00 usft	**Longitude:**	103° 28' 21.144 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,324.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/10/2018	6.83	59.91	47,787.66367718

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	179.18

Plan Survey Tool Program **Date** 1/10/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,612.5	Plan #0.1 (OH)	MWD	
				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	
3,074.6	0.75	12.02	3,074.6	0.5	0.1	1.00	1.00	0.00	12.02	
12,334.3	0.75	12.02	12,333.5	118.4	25.2	0.00	0.00	0.00	0.00	
13,090.3	90.00	179.50	12,817.0	-359.0	30.7	12.00	11.80	22.15	167.48	
17,612.5	90.00	179.50	12,817.0	-4,881.0	70.0	0.00	0.00	0.00	0.00	PBHL(Nautilus 16 Fe

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #713H
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Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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
3,074.6	0.75	12.02	3,074.6	0.5	0.1	-0.5	1.00	1.00	0.00
3,100.0	0.75	12.02	3,100.0	0.8	0.2	-0.8	0.00	0.00	0.00
3,200.0	0.75	12.02	3,200.0	2.1	0.4	-2.1	0.00	0.00	0.00
3,300.0	0.75	12.02	3,300.0	3.3	0.7	-3.3	0.00	0.00	0.00
3,400.0	0.75	12.02	3,400.0	4.6	1.0	-4.6	0.00	0.00	0.00
3,500.0	0.75	12.02	3,500.0	5.9	1.3	-5.9	0.00	0.00	0.00
3,600.0	0.75	12.02	3,600.0	7.2	1.5	-7.1	0.00	0.00	0.00
3,700.0	0.75	12.02	3,699.9	8.4	1.8	-8.4	0.00	0.00	0.00
3,800.0	0.75	12.02	3,799.9	9.7	2.1	-9.7	0.00	0.00	0.00
3,900.0	0.75	12.02	3,899.9	11.0	2.3	-11.0	0.00	0.00	0.00
4,000.0	0.75	12.02	3,999.9	12.3	2.6	-12.2	0.00	0.00	0.00
4,100.0	0.75	12.02	4,099.9	13.5	2.9	-13.5	0.00	0.00	0.00
4,200.0	0.75	12.02	4,199.9	14.8	3.2	-14.8	0.00	0.00	0.00
4,300.0	0.75	12.02	4,299.9	16.1	3.4	-16.0	0.00	0.00	0.00
4,400.0	0.75	12.02	4,399.9	17.4	3.7	-17.3	0.00	0.00	0.00
4,500.0	0.75	12.02	4,499.9	18.6	4.0	-18.6	0.00	0.00	0.00
4,600.0	0.75	12.02	4,599.9	19.9	4.2	-19.8	0.00	0.00	0.00
4,700.0	0.75	12.02	4,699.9	21.2	4.5	-21.1	0.00	0.00	0.00
4,800.0	0.75	12.02	4,799.9	22.5	4.8	-22.4	0.00	0.00	0.00
4,900.0	0.75	12.02	4,899.8	23.7	5.1	-23.7	0.00	0.00	0.00
5,000.0	0.75	12.02	4,999.8	25.0	5.3	-24.9	0.00	0.00	0.00
5,100.0	0.75	12.02	5,099.8	26.3	5.6	-26.2	0.00	0.00	0.00
5,200.0	0.75	12.02	5,199.8	27.5	5.9	-27.5	0.00	0.00	0.00

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Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	0.75	12.02	5,299.8	28.8	6.1	-28.7	0.00	0.00	0.00
5,400.0	0.75	12.02	5,399.8	30.1	6.4	-30.0	0.00	0.00	0.00
5,500.0	0.75	12.02	5,499.8	31.4	6.7	-31.3	0.00	0.00	0.00
5,600.0	0.75	12.02	5,599.8	32.6	7.0	-32.5	0.00	0.00	0.00
5,700.0	0.75	12.02	5,699.8	33.9	7.2	-33.8	0.00	0.00	0.00
5,800.0	0.75	12.02	5,799.8	35.2	7.5	-35.1	0.00	0.00	0.00
5,900.0	0.75	12.02	5,899.8	36.5	7.8	-36.4	0.00	0.00	0.00
6,000.0	0.75	12.02	5,999.7	37.7	8.0	-37.6	0.00	0.00	0.00
6,100.0	0.75	12.02	6,099.7	39.0	8.3	-38.9	0.00	0.00	0.00
6,200.0	0.75	12.02	6,199.7	40.3	8.6	-40.2	0.00	0.00	0.00
6,300.0	0.75	12.02	6,299.7	41.6	8.9	-41.4	0.00	0.00	0.00
6,400.0	0.75	12.02	6,399.7	42.8	9.1	-42.7	0.00	0.00	0.00
6,500.0	0.75	12.02	6,499.7	44.1	9.4	-44.0	0.00	0.00	0.00
6,600.0	0.75	12.02	6,599.7	45.4	9.7	-45.2	0.00	0.00	0.00
6,700.0	0.75	12.02	6,699.7	46.7	9.9	-46.5	0.00	0.00	0.00
6,800.0	0.75	12.02	6,799.7	47.9	10.2	-47.8	0.00	0.00	0.00
6,900.0	0.75	12.02	6,899.7	49.2	10.5	-49.0	0.00	0.00	0.00
7,000.0	0.75	12.02	6,999.7	50.5	10.8	-50.3	0.00	0.00	0.00
7,100.0	0.75	12.02	7,099.7	51.8	11.0	-51.6	0.00	0.00	0.00
7,200.0	0.75	12.02	7,199.6	53.0	11.3	-52.9	0.00	0.00	0.00
7,300.0	0.75	12.02	7,299.6	54.3	11.6	-54.1	0.00	0.00	0.00
7,400.0	0.75	12.02	7,399.6	55.6	11.8	-55.4	0.00	0.00	0.00
7,500.0	0.75	12.02	7,499.6	56.8	12.1	-56.7	0.00	0.00	0.00
7,600.0	0.75	12.02	7,599.6	58.1	12.4	-57.9	0.00	0.00	0.00
7,700.0	0.75	12.02	7,699.6	59.4	12.7	-59.2	0.00	0.00	0.00
7,800.0	0.75	12.02	7,799.6	60.7	12.9	-60.5	0.00	0.00	0.00
7,900.0	0.75	12.02	7,899.6	61.9	13.2	-61.7	0.00	0.00	0.00
8,000.0	0.75	12.02	7,999.6	63.2	13.5	-63.0	0.00	0.00	0.00
8,100.0	0.75	12.02	8,099.6	64.5	13.7	-64.3	0.00	0.00	0.00
8,200.0	0.75	12.02	8,199.6	65.8	14.0	-65.6	0.00	0.00	0.00
8,300.0	0.75	12.02	8,299.6	67.0	14.3	-66.8	0.00	0.00	0.00
8,400.0	0.75	12.02	8,399.5	68.3	14.6	-68.1	0.00	0.00	0.00
8,500.0	0.75	12.02	8,499.5	69.6	14.8	-69.4	0.00	0.00	0.00
8,600.0	0.75	12.02	8,599.5	70.9	15.1	-70.6	0.00	0.00	0.00
8,700.0	0.75	12.02	8,699.5	72.1	15.4	-71.9	0.00	0.00	0.00
8,800.0	0.75	12.02	8,799.5	73.4	15.6	-73.2	0.00	0.00	0.00
8,900.0	0.75	12.02	8,899.5	74.7	15.9	-74.4	0.00	0.00	0.00
9,000.0	0.75	12.02	8,999.5	76.0	16.2	-75.7	0.00	0.00	0.00
9,100.0	0.75	12.02	9,099.5	77.2	16.5	-77.0	0.00	0.00	0.00
9,200.0	0.75	12.02	9,199.5	78.5	16.7	-78.3	0.00	0.00	0.00
9,300.0	0.75	12.02	9,299.5	79.8	17.0	-79.5	0.00	0.00	0.00
9,400.0	0.75	12.02	9,399.5	81.0	17.3	-80.8	0.00	0.00	0.00
9,500.0	0.75	12.02	9,499.5	82.3	17.5	-82.1	0.00	0.00	0.00
9,600.0	0.75	12.02	9,599.4	83.6	17.8	-83.3	0.00	0.00	0.00
9,700.0	0.75	12.02	9,699.4	84.9	18.1	-84.6	0.00	0.00	0.00
9,800.0	0.75	12.02	9,799.4	86.1	18.3	-85.9	0.00	0.00	0.00
9,900.0	0.75	12.02	9,899.4	87.4	18.6	-87.1	0.00	0.00	0.00
10,000.0	0.75	12.02	9,999.4	88.7	18.9	-88.4	0.00	0.00	0.00
10,100.0	0.75	12.02	10,099.4	90.0	19.2	-89.7	0.00	0.00	0.00
10,200.0	0.75	12.02	10,199.4	91.2	19.4	-91.0	0.00	0.00	0.00
10,300.0	0.75	12.02	10,299.4	92.5	19.7	-92.2	0.00	0.00	0.00
10,400.0	0.75	12.02	10,399.4	93.8	20.0	-93.5	0.00	0.00	0.00
10,500.0	0.75	12.02	10,499.4	95.1	20.2	-94.8	0.00	0.00	0.00
10,600.0	0.75	12.02	10,599.4	96.3	20.5	-96.0	0.00	0.00	0.00

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Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	0.75	12.02	10,699.4	97.6	20.8	-97.3	0.00	0.00	0.00
10,800.0	0.75	12.02	10,799.3	98.9	21.1	-98.6	0.00	0.00	0.00
10,900.0	0.75	12.02	10,899.3	100.2	21.3	-99.8	0.00	0.00	0.00
11,000.0	0.75	12.02	10,999.3	101.4	21.6	-101.1	0.00	0.00	0.00
11,100.0	0.75	12.02	11,099.3	102.7	21.9	-102.4	0.00	0.00	0.00
11,200.0	0.75	12.02	11,199.3	104.0	22.1	-103.6	0.00	0.00	0.00
11,300.0	0.75	12.02	11,299.3	105.3	22.4	-104.9	0.00	0.00	0.00
11,400.0	0.75	12.02	11,399.3	106.5	22.7	-106.2	0.00	0.00	0.00
11,500.0	0.75	12.02	11,499.3	107.8	23.0	-107.5	0.00	0.00	0.00
11,600.0	0.75	12.02	11,599.3	109.1	23.2	-108.7	0.00	0.00	0.00
11,700.0	0.75	12.02	11,699.3	110.3	23.5	-110.0	0.00	0.00	0.00
11,800.0	0.75	12.02	11,799.3	111.6	23.8	-111.3	0.00	0.00	0.00
11,900.0	0.75	12.02	11,899.2	112.9	24.0	-112.5	0.00	0.00	0.00
12,000.0	0.75	12.02	11,999.2	114.2	24.3	-113.8	0.00	0.00	0.00
12,100.0	0.75	12.02	12,099.2	115.4	24.6	-115.1	0.00	0.00	0.00
12,200.0	0.75	12.02	12,199.2	116.7	24.9	-116.3	0.00	0.00	0.00
12,300.0	0.75	12.02	12,299.2	118.0	25.1	-117.6	0.00	0.00	0.00
12,334.3	0.75	12.02	12,333.5	118.4	25.2	-118.1	0.00	0.00	0.00
12,350.0	1.17	171.57	12,349.2	118.4	25.3	-118.0	12.00	2.71	1,013.25
12,375.0	4.16	177.28	12,374.2	117.2	25.4	-116.8	12.00	11.97	22.84
12,400.0	7.16	178.21	12,399.1	114.7	25.4	-114.4	12.00	11.99	3.74
12,425.0	10.16	178.60	12,423.8	111.0	25.5	-110.6	12.00	12.00	1.54
12,450.0	13.16	178.81	12,448.2	105.9	25.7	-105.5	12.00	12.00	0.84
12,475.0	16.16	178.94	12,472.4	99.6	25.8	-99.2	12.00	12.00	0.53
12,500.0	19.16	179.04	12,496.3	92.0	25.9	-91.6	12.00	12.00	0.37
12,525.0	22.16	179.11	12,519.6	83.2	26.1	-82.8	12.00	12.00	0.27
12,550.0	25.16	179.16	12,542.5	73.2	26.2	-72.8	12.00	12.00	0.21
12,575.0	28.16	179.20	12,564.9	62.0	26.4	-61.6	12.00	12.00	0.17
12,600.0	31.16	179.23	12,586.6	49.6	26.5	-49.2	12.00	12.00	0.14
12,625.0	34.16	179.26	12,607.6	36.1	26.7	-35.7	12.00	12.00	0.12
12,650.0	37.16	179.29	12,628.0	21.5	26.9	-21.1	12.00	12.00	0.10
12,675.0	40.16	179.31	12,647.5	5.9	27.1	-5.5	12.00	12.00	0.09
12,700.0	43.16	179.33	12,666.1	-10.7	27.3	11.1	12.00	12.00	0.08
12,725.0	46.16	179.35	12,683.9	-28.3	27.5	28.7	12.00	12.00	0.07
12,750.0	49.16	179.36	12,700.8	-46.8	27.7	47.1	12.00	12.00	0.06
12,775.0	52.16	179.38	12,716.6	-66.1	27.9	66.5	12.00	12.00	0.06
12,800.0	55.16	179.39	12,731.4	-86.2	28.1	86.6	12.00	12.00	0.05
12,825.0	58.16	179.40	12,745.2	-107.1	28.3	107.5	12.00	12.00	0.05
12,850.0	61.16	179.41	12,757.8	-128.7	28.6	129.1	12.00	12.00	0.05
12,875.0	64.16	179.42	12,769.3	-150.9	28.8	151.3	12.00	12.00	0.04
12,900.0	67.16	179.43	12,779.6	-173.7	29.0	174.1	12.00	12.00	0.04
FTP (Nautilus 16 Fed Com #713H)									
12,925.0	70.16	179.44	12,788.7	-196.9	29.2	197.3	12.00	12.00	0.04
12,950.0	73.16	179.45	12,796.5	-220.7	29.5	221.1	12.00	12.00	0.04
12,975.0	76.16	179.46	12,803.1	-244.8	29.7	245.2	12.00	12.00	0.04
13,000.0	79.16	179.47	12,808.5	-269.2	29.9	269.6	12.00	12.00	0.04
13,025.0	82.16	179.48	12,812.5	-293.9	30.2	294.3	12.00	12.00	0.03
13,050.0	85.16	179.49	12,815.3	-318.7	30.4	319.1	12.00	12.00	0.03
13,075.0	88.16	179.50	12,816.8	-343.6	30.6	344.1	12.00	12.00	0.03
13,090.3	90.00	179.50	12,817.0	-359.0	30.7	359.4	12.00	12.00	0.03
13,100.0	90.00	179.50	12,817.0	-368.6	30.8	369.0	0.00	0.00	0.00
13,200.0	90.00	179.50	12,817.0	-468.6	31.7	469.0	0.00	0.00	0.00
13,300.0	90.00	179.50	12,817.0	-568.6	32.6	569.0	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #713H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3349.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3349.0usft
Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	179.50	12,817.0	-668.6	33.4	669.0	0.00	0.00	0.00
13,500.0	90.00	179.50	12,817.0	-768.6	34.3	769.0	0.00	0.00	0.00
13,600.0	90.00	179.50	12,817.0	-868.6	35.2	869.0	0.00	0.00	0.00
13,700.0	90.00	179.50	12,817.0	-968.6	36.0	969.0	0.00	0.00	0.00
13,800.0	90.00	179.50	12,817.0	-1,068.6	36.9	1,069.0	0.00	0.00	0.00
13,900.0	90.00	179.50	12,817.0	-1,168.6	37.8	1,169.0	0.00	0.00	0.00
14,000.0	90.00	179.50	12,817.0	-1,268.6	38.6	1,269.0	0.00	0.00	0.00
14,100.0	90.00	179.50	12,817.0	-1,368.6	39.5	1,369.0	0.00	0.00	0.00
14,200.0	90.00	179.50	12,817.0	-1,468.6	40.4	1,469.0	0.00	0.00	0.00
14,300.0	90.00	179.50	12,817.0	-1,568.6	41.2	1,569.0	0.00	0.00	0.00
14,400.0	90.00	179.50	12,817.0	-1,668.6	42.1	1,669.0	0.00	0.00	0.00
14,500.0	90.00	179.50	12,817.0	-1,768.6	43.0	1,769.0	0.00	0.00	0.00
14,600.0	90.00	179.50	12,817.0	-1,868.6	43.8	1,869.0	0.00	0.00	0.00
14,700.0	90.00	179.50	12,817.0	-1,968.6	44.7	1,969.0	0.00	0.00	0.00
14,800.0	90.00	179.50	12,817.0	-2,068.6	45.6	2,069.0	0.00	0.00	0.00
14,900.0	90.00	179.50	12,817.0	-2,168.6	46.4	2,169.0	0.00	0.00	0.00
15,000.0	90.00	179.50	12,817.0	-2,268.6	47.3	2,269.0	0.00	0.00	0.00
15,100.0	90.00	179.50	12,817.0	-2,368.6	48.2	2,369.0	0.00	0.00	0.00
15,200.0	90.00	179.50	12,817.0	-2,468.6	49.1	2,469.0	0.00	0.00	0.00
15,300.0	90.00	179.50	12,817.0	-2,568.6	49.9	2,569.0	0.00	0.00	0.00
15,400.0	90.00	179.50	12,817.0	-2,668.6	50.8	2,669.0	0.00	0.00	0.00
15,500.0	90.00	179.50	12,817.0	-2,768.6	51.7	2,769.0	0.00	0.00	0.00
15,600.0	90.00	179.50	12,817.0	-2,868.6	52.5	2,869.0	0.00	0.00	0.00
15,700.0	90.00	179.50	12,817.0	-2,968.5	53.4	2,969.0	0.00	0.00	0.00
15,800.0	90.00	179.50	12,817.0	-3,068.5	54.3	3,069.0	0.00	0.00	0.00
15,900.0	90.00	179.50	12,817.0	-3,168.5	55.1	3,169.0	0.00	0.00	0.00
16,000.0	90.00	179.50	12,817.0	-3,268.5	56.0	3,269.0	0.00	0.00	0.00
16,100.0	90.00	179.50	12,817.0	-3,368.5	56.9	3,369.0	0.00	0.00	0.00
16,200.0	90.00	179.50	12,817.0	-3,468.5	57.7	3,469.0	0.00	0.00	0.00
16,300.0	90.00	179.50	12,817.0	-3,568.5	58.6	3,569.0	0.00	0.00	0.00
16,400.0	90.00	179.50	12,817.0	-3,668.5	59.5	3,669.0	0.00	0.00	0.00
16,500.0	90.00	179.50	12,817.0	-3,768.5	60.3	3,769.0	0.00	0.00	0.00
16,600.0	90.00	179.50	12,817.0	-3,868.5	61.2	3,869.0	0.00	0.00	0.00
16,700.0	90.00	179.50	12,817.0	-3,968.5	62.1	3,969.0	0.00	0.00	0.00
16,800.0	90.00	179.50	12,817.0	-4,068.5	62.9	4,069.0	0.00	0.00	0.00
16,900.0	90.00	179.50	12,817.0	-4,168.5	63.8	4,169.0	0.00	0.00	0.00
17,000.0	90.00	179.50	12,817.0	-4,268.5	64.7	4,269.0	0.00	0.00	0.00
17,100.0	90.00	179.50	12,817.0	-4,368.5	65.6	4,369.0	0.00	0.00	0.00
17,200.0	90.00	179.50	12,817.0	-4,468.5	66.4	4,469.0	0.00	0.00	0.00
17,300.0	90.00	179.50	12,817.0	-4,568.5	67.3	4,569.0	0.00	0.00	0.00
17,400.0	90.00	179.50	12,817.0	-4,668.5	68.2	4,669.0	0.00	0.00	0.00
17,500.0	90.00	179.50	12,817.0	-4,768.5	69.0	4,769.0	0.00	0.00	0.00
17,600.0	90.00	179.50	12,817.0	-4,868.5	69.9	4,869.0	0.00	0.00	0.00
17,612.5	90.00	179.50	12,817.0	-4,881.0	70.0	4,881.5	0.00	0.00	0.00
PBHL(Nautilus 16 Fed Com #713H)									

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #713H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3349.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3349.0usft
Site:	Nautilus 16 State Com	**North Reference:**	Grid
Well:	#713H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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
PBHL(Nautilus 16 Fed C - plan hits target center - Point	0.00	0.00	12,817.0	-4,881.0	70.0	378,196.00	808,102.00	32° 2' 12.545 N	103° 28' 20.783 W
FTP (Nautilus 16 Fed Cc - plan misses target center by 40.2usft at 12900.0usft MD (12779.6 TVD, -173.7 N, 29.0 E) - Point	0.00	0.00	12,817.0	-159.0	29.0	382,918.00	808,061.00	32° 2' 59.274 N	103° 28' 20.822 W