



Lea County, NM (NAD 83 NME)

Cobalt 32 State #708H

Plan #0.2

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

WELL DETAILS: #708H

KB = 25 @ 3450.0usft 3425.0
Northing 425616.00 Easting 799712.00 Latitude 32° 10' 2.427 N Longitude 103° 29' 53.980 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	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	3156.8	3.13	107.87	3156.5	-1.3	4.1	2.00	107.87	-1.0	
4	11768.9	3.13	107.87	11756.0	-145.7	451.9	0.00	0.00	-108.9	
5	11925.5	0.00	0.00	11912.5	-147.0	456.0	2.00	180.00	-109.9	KOP (Cobalt 32 State #708H)
6	12675.5	90.00	359.39	12390.0	330.4	450.9	12.00	350.39	365.6	
7	17322.4	90.00	359.39	12390.0	4977.0	401.0	0.00	0.00	4993.1	PBHL (Cobalt 32 State #708H)



Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.34°
Magnetic Field
Strength: 47791.0nT
Dip Angle: 60.01°
Date: 8/21/2016
Model: IGRF2015

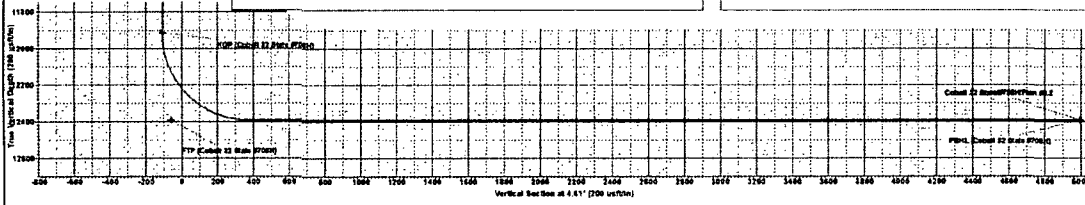
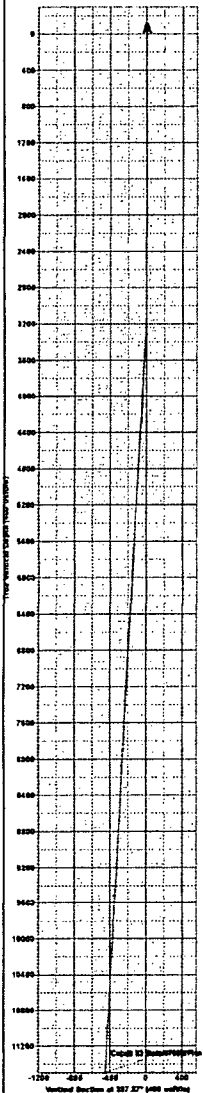
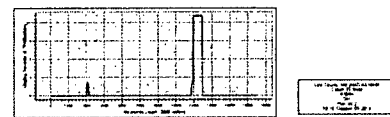
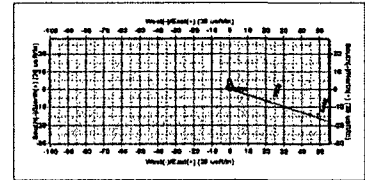
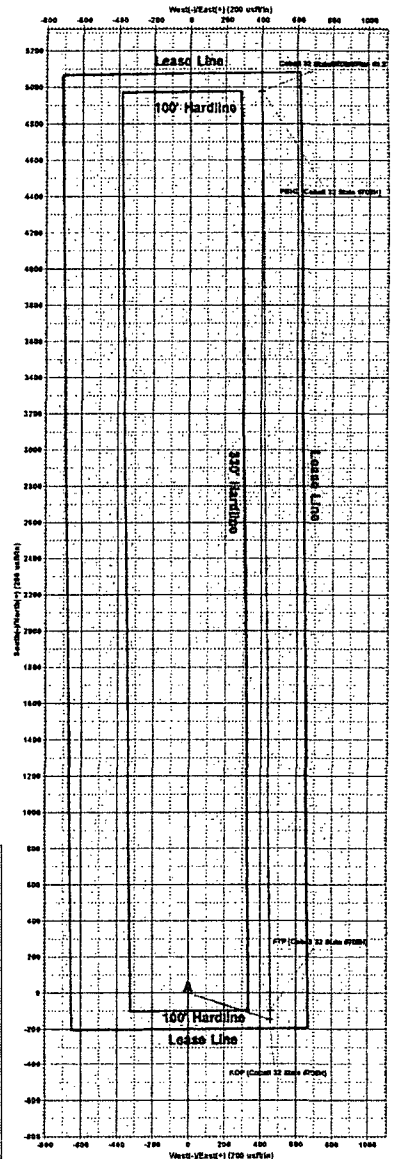
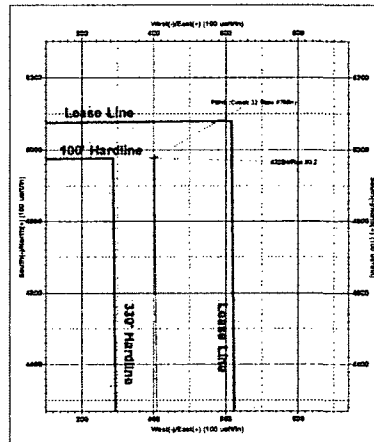
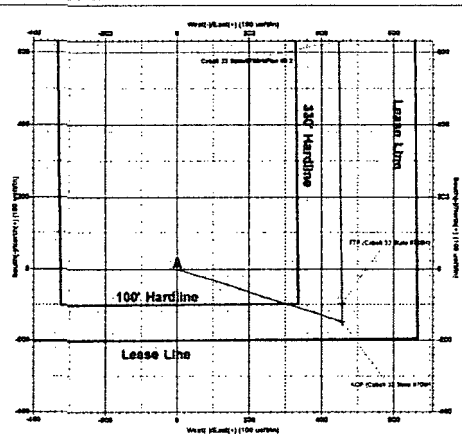
To convert a Magnetic Direction to a Grid Direction, Add 6.34°
To convert a Magnetic Direction to a True Direction, Add 6.79° East
To convert a True Direction to a Grid Direction, Subtract 6.44°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Cobalt 32 State #708H)	11912.5	-147.0	456.0	425616.00	800169.00
FTP (Cobalt 32 State #708H)	12390.0	-97.0	466.0	425618.00	800169.00
PBHL (Cobalt 32 State #708H)	12390.0	4977.0	401.0	430593.00	800113.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State

#708H

OH

Plan: Plan #0.2

Standard Planning Report

05 October, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3450.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3450.0usft
Site:	Cobalt 32 State	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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		Cobalt 32 State			
Site Position:		Northing:	425,645.00 usft	Latitude:	32° 10' 2.406 N
From:	Map	Easting:	803,691.00 usft	Longitude:	103° 29' 7.689 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45

Well	#708H					
Well Position	+N/-S	-29.0 usft	Northing:	425,616.00 usft	Latitude:	32° 10' 2.427 N
	+E/-W	-3,979.0 usft	Easting:	799,712.00 usft	Longitude:	103° 29' 53.980 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,425.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/21/2018	6.79	60.01	47,791.01733183

Design	Plan #0.2			
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	4.61

Plan Survey Tool Program	Date	10/5/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,322.4 Plan #0.2 (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	
3,156.6	3.13	107.87	3,156.5	-1.3	4.1	2.00	2.00	0.00	107.87	
11,768.9	3.13	107.87	11,756.0	-145.7	451.9	0.00	0.00	0.00	0.00	
11,925.5	0.00	0.00	11,912.5	-147.0	456.0	2.00	-2.00	0.00	180.00	KOP (Cobalt 32 State)
12,675.5	90.00	359.39	12,390.0	330.4	450.9	12.00	12.00	-0.08	359.39	
17,322.4	90.00	359.39	12,390.0	4,977.0	401.0	0.00	0.00	0.00	0.00	PBHL (Cobalt 32 Stat)



Planning Report

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Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3450.0usft
Site:	Cobalt 32 State	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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	107.87	3,100.0	-0.5	1.7	-0.4	2.00	2.00	0.00
3,156.6	3.13	107.87	3,156.5	-1.3	4.1	-1.0	2.00	2.00	0.00
3,200.0	3.13	107.87	3,199.9	-2.0	6.3	-1.5	0.00	0.00	0.00
3,300.0	3.13	107.87	3,299.7	-3.7	11.5	-2.8	0.00	0.00	0.00
3,400.0	3.13	107.87	3,399.6	-5.4	16.7	-4.0	0.00	0.00	0.00
3,500.0	3.13	107.87	3,499.4	-7.1	21.9	-5.3	0.00	0.00	0.00
3,600.0	3.13	107.87	3,599.3	-8.7	27.1	-6.5	0.00	0.00	0.00
3,700.0	3.13	107.87	3,699.1	-10.4	32.3	-7.8	0.00	0.00	0.00
3,800.0	3.13	107.87	3,799.0	-12.1	37.5	-9.0	0.00	0.00	0.00
3,900.0	3.13	107.87	3,898.8	-13.8	42.7	-10.3	0.00	0.00	0.00
4,000.0	3.13	107.87	3,998.7	-15.5	47.9	-11.6	0.00	0.00	0.00
4,100.0	3.13	107.87	4,098.5	-17.1	53.1	-12.8	0.00	0.00	0.00
4,200.0	3.13	107.87	4,198.4	-18.8	58.3	-14.1	0.00	0.00	0.00
4,300.0	3.13	107.87	4,298.2	-20.5	63.5	-15.3	0.00	0.00	0.00
4,400.0	3.13	107.87	4,398.1	-22.2	68.7	-16.6	0.00	0.00	0.00
4,500.0	3.13	107.87	4,497.9	-23.8	73.9	-17.8	0.00	0.00	0.00
4,600.0	3.13	107.87	4,597.8	-25.5	79.1	-19.1	0.00	0.00	0.00
4,700.0	3.13	107.87	4,697.6	-27.2	84.3	-20.3	0.00	0.00	0.00
4,800.0	3.13	107.87	4,797.5	-28.9	89.5	-21.6	0.00	0.00	0.00
4,900.0	3.13	107.87	4,897.3	-30.5	94.7	-22.8	0.00	0.00	0.00
5,000.0	3.13	107.87	4,997.2	-32.2	99.9	-24.1	0.00	0.00	0.00
5,100.0	3.13	107.87	5,097.0	-33.9	105.1	-25.3	0.00	0.00	0.00
5,200.0	3.13	107.87	5,196.9	-35.6	110.3	-26.6	0.00	0.00	0.00



Planning Report

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Site:	Cobalt 32 State	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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	3.13	107.87	5,296.7	-37.2	115.5	-27.8	0.00	0.00	0.00
5,400.0	3.13	107.87	5,396.6	-38.9	120.7	-29.1	0.00	0.00	0.00
5,500.0	3.13	107.87	5,496.4	-40.6	125.9	-30.4	0.00	0.00	0.00
5,600.0	3.13	107.87	5,596.3	-42.3	131.1	-31.6	0.00	0.00	0.00
5,700.0	3.13	107.87	5,696.1	-43.9	136.3	-32.9	0.00	0.00	0.00
5,800.0	3.13	107.87	5,796.0	-45.6	141.5	-34.1	0.00	0.00	0.00
5,900.0	3.13	107.87	5,895.8	-47.3	146.7	-35.4	0.00	0.00	0.00
6,000.0	3.13	107.87	5,995.7	-49.0	151.9	-36.6	0.00	0.00	0.00
6,100.0	3.13	107.87	6,095.5	-50.7	157.1	-37.9	0.00	0.00	0.00
6,200.0	3.13	107.87	6,195.4	-52.3	162.3	-39.1	0.00	0.00	0.00
6,300.0	3.13	107.87	6,295.2	-54.0	167.5	-40.4	0.00	0.00	0.00
6,400.0	3.13	107.87	6,395.1	-55.7	172.7	-41.6	0.00	0.00	0.00
6,500.0	3.13	107.87	6,494.9	-57.4	177.9	-42.9	0.00	0.00	0.00
6,600.0	3.13	107.87	6,594.8	-59.0	183.1	-44.1	0.00	0.00	0.00
6,700.0	3.13	107.87	6,694.6	-60.7	188.3	-45.4	0.00	0.00	0.00
6,800.0	3.13	107.87	6,794.5	-62.4	193.5	-46.6	0.00	0.00	0.00
6,900.0	3.13	107.87	6,894.3	-64.1	198.7	-47.9	0.00	0.00	0.00
7,000.0	3.13	107.87	6,994.2	-65.7	203.9	-49.2	0.00	0.00	0.00
7,100.0	3.13	107.87	7,094.0	-67.4	209.1	-50.4	0.00	0.00	0.00
7,200.0	3.13	107.87	7,193.9	-69.1	214.3	-51.7	0.00	0.00	0.00
7,300.0	3.13	107.87	7,293.7	-70.8	219.5	-52.9	0.00	0.00	0.00
7,400.0	3.13	107.87	7,393.6	-72.4	224.7	-54.2	0.00	0.00	0.00
7,500.0	3.13	107.87	7,493.4	-74.1	229.9	-55.4	0.00	0.00	0.00
7,600.0	3.13	107.87	7,593.3	-75.8	235.1	-56.7	0.00	0.00	0.00
7,700.0	3.13	107.87	7,693.1	-77.5	240.3	-57.9	0.00	0.00	0.00
7,800.0	3.13	107.87	7,793.0	-79.2	245.5	-59.2	0.00	0.00	0.00
7,900.0	3.13	107.87	7,892.8	-80.8	250.7	-60.4	0.00	0.00	0.00
8,000.0	3.13	107.87	7,992.7	-82.5	255.9	-61.7	0.00	0.00	0.00
8,100.0	3.13	107.87	8,092.5	-84.2	261.1	-62.9	0.00	0.00	0.00
8,200.0	3.13	107.87	8,192.4	-85.9	266.3	-64.2	0.00	0.00	0.00
8,300.0	3.13	107.87	8,292.2	-87.5	271.5	-65.4	0.00	0.00	0.00
8,400.0	3.13	107.87	8,392.1	-89.2	276.7	-66.7	0.00	0.00	0.00
8,500.0	3.13	107.87	8,491.9	-90.9	281.9	-68.0	0.00	0.00	0.00
8,600.0	3.13	107.87	8,591.8	-92.6	287.1	-69.2	0.00	0.00	0.00
8,700.0	3.13	107.87	8,691.6	-94.2	292.3	-70.5	0.00	0.00	0.00
8,800.0	3.13	107.87	8,791.5	-95.9	297.5	-71.7	0.00	0.00	0.00
8,900.0	3.13	107.87	8,891.3	-97.6	302.7	-73.0	0.00	0.00	0.00
9,000.0	3.13	107.87	8,991.2	-99.3	307.9	-74.2	0.00	0.00	0.00
9,100.0	3.13	107.87	9,091.0	-100.9	313.1	-75.5	0.00	0.00	0.00
9,200.0	3.13	107.87	9,190.9	-102.6	318.3	-76.7	0.00	0.00	0.00
9,300.0	3.13	107.87	9,290.7	-104.3	323.5	-78.0	0.00	0.00	0.00
9,400.0	3.13	107.87	9,390.6	-106.0	328.7	-79.2	0.00	0.00	0.00
9,500.0	3.13	107.87	9,490.4	-107.7	333.9	-80.5	0.00	0.00	0.00
9,600.0	3.13	107.87	9,590.3	-109.3	339.1	-81.7	0.00	0.00	0.00
9,700.0	3.13	107.87	9,690.1	-111.0	344.3	-83.0	0.00	0.00	0.00
9,800.0	3.13	107.87	9,790.0	-112.7	349.5	-84.2	0.00	0.00	0.00
9,900.0	3.13	107.87	9,889.8	-114.4	354.7	-85.5	0.00	0.00	0.00
10,000.0	3.13	107.87	9,989.7	-116.0	359.9	-86.8	0.00	0.00	0.00
10,100.0	3.13	107.87	10,089.6	-117.7	365.1	-88.0	0.00	0.00	0.00
10,200.0	3.13	107.87	10,189.4	-119.4	370.3	-89.3	0.00	0.00	0.00
10,300.0	3.13	107.87	10,289.3	-121.1	375.5	-90.5	0.00	0.00	0.00
10,400.0	3.13	107.87	10,389.1	-122.7	380.7	-91.8	0.00	0.00	0.00
10,500.0	3.13	107.87	10,489.0	-124.4	385.9	-93.0	0.00	0.00	0.00
10,600.0	3.13	107.87	10,588.8	-126.1	391.1	-94.3	0.00	0.00	0.00



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Site:	Cobalt 32 State	North Reference:	Grid
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Design:	Plan #0.2		

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	3.13	107.87	10,688.7	-127.8	396.3	-95.5	0.00	0.00	0.00	
10,800.0	3.13	107.87	10,788.5	-129.4	401.5	-96.8	0.00	0.00	0.00	
10,900.0	3.13	107.87	10,888.4	-131.1	406.7	-98.0	0.00	0.00	0.00	
11,000.0	3.13	107.87	10,988.2	-132.8	411.9	-99.3	0.00	0.00	0.00	
11,100.0	3.13	107.87	11,088.1	-134.5	417.1	-100.5	0.00	0.00	0.00	
11,200.0	3.13	107.87	11,187.9	-136.1	422.3	-101.8	0.00	0.00	0.00	
11,300.0	3.13	107.87	11,287.8	-137.8	427.5	-103.0	0.00	0.00	0.00	
11,400.0	3.13	107.87	11,387.6	-139.5	432.7	-104.3	0.00	0.00	0.00	
11,500.0	3.13	107.87	11,487.5	-141.2	437.9	-105.6	0.00	0.00	0.00	
11,600.0	3.13	107.87	11,587.3	-142.9	443.1	-106.8	0.00	0.00	0.00	
11,700.0	3.13	107.87	11,687.2	-144.5	448.3	-108.1	0.00	0.00	0.00	
11,768.9	3.13	107.87	11,756.0	-145.7	451.9	-108.9	0.00	0.00	0.00	
11,800.0	2.51	107.87	11,787.0	-146.2	453.4	-109.3	2.00	-2.00	0.00	
11,900.0	0.51	107.87	11,887.0	-147.0	455.9	-109.9	2.00	-2.00	0.00	
11,925.5	0.00	0.00	11,912.5	-147.0	456.0	-109.9	2.00	-2.00	0.00	
KOP (Cobalt 32 State #708H)										
11,950.0	2.94	359.39	11,937.0	-146.4	456.0	-109.3	12.00	12.00	0.00	
11,975.0	5.94	359.39	11,961.9	-144.4	456.0	-107.4	12.00	12.00	0.00	
12,000.0	8.94	359.39	11,986.7	-141.2	455.9	-104.1	12.00	12.00	0.00	
12,025.0	11.94	359.39	12,011.3	-136.7	455.9	-99.6	12.00	12.00	0.00	
12,050.0	14.94	359.39	12,035.6	-130.9	455.8	-93.8	12.00	12.00	0.00	
12,075.0	17.94	359.39	12,059.5	-123.8	455.8	-86.8	12.00	12.00	0.00	
12,100.0	20.94	359.39	12,083.1	-115.5	455.7	-78.5	12.00	12.00	0.00	
12,125.0	23.94	359.39	12,106.2	-105.9	455.6	-69.0	12.00	12.00	0.00	
12,150.0	26.94	359.39	12,128.8	-95.2	455.4	-58.3	12.00	12.00	0.00	
12,175.0	29.94	359.39	12,150.8	-83.3	455.3	-46.5	12.00	12.00	0.00	
12,200.0	32.94	359.39	12,172.1	-70.3	455.2	-33.5	12.00	12.00	0.00	
12,225.0	35.94	359.39	12,192.7	-56.1	455.0	-19.4	12.00	12.00	0.00	
12,250.0	38.94	359.39	12,212.6	-40.9	454.9	-4.3	12.00	12.00	0.00	
12,275.0	41.94	359.39	12,231.6	-24.7	454.7	11.9	12.00	12.00	0.00	
12,300.0	44.94	359.39	12,249.8	-7.5	454.5	29.0	12.00	12.00	0.00	
12,325.0	47.94	359.39	12,267.0	10.6	454.3	47.0	12.00	12.00	0.00	
FTP (Cobalt 32 State #708H)										
12,350.0	50.94	359.39	12,283.2	29.6	454.1	65.9	12.00	12.00	0.00	
12,375.0	53.94	359.39	12,298.5	49.4	453.9	85.7	12.00	12.00	0.00	
12,400.0	56.94	359.39	12,312.7	70.0	453.7	106.2	12.00	12.00	0.00	
12,425.0	59.94	359.39	12,325.7	91.3	453.4	127.4	12.00	12.00	0.00	
12,450.0	62.94	359.39	12,337.7	113.2	453.2	149.3	12.00	12.00	0.00	
12,475.0	65.94	359.39	12,348.5	135.8	453.0	171.7	12.00	12.00	0.00	
12,500.0	68.94	359.39	12,358.1	158.9	452.7	194.7	12.00	12.00	0.00	
12,525.0	71.94	359.39	12,366.4	182.4	452.5	218.2	12.00	12.00	0.00	
12,550.0	74.94	359.39	12,373.6	206.4	452.2	242.0	12.00	12.00	0.00	
12,575.0	77.94	359.39	12,379.4	230.7	451.9	266.2	12.00	12.00	0.00	
12,600.0	80.94	359.39	12,384.0	255.2	451.7	290.7	12.00	12.00	0.00	
12,625.0	83.94	359.39	12,387.3	280.0	451.4	315.4	12.00	12.00	0.00	
12,650.0	86.94	359.39	12,389.3	304.9	451.1	340.2	12.00	12.00	0.00	
12,675.5	90.00	359.39	12,390.0	330.4	450.9	365.6	12.00	12.00	0.00	
12,700.0	90.00	359.39	12,390.0	354.9	450.6	390.0	0.00	0.00	0.00	
12,800.0	90.00	359.39	12,390.0	454.9	449.5	489.5	0.00	0.00	0.00	
12,900.0	90.00	359.39	12,390.0	554.9	448.5	589.1	0.00	0.00	0.00	
13,000.0	90.00	359.39	12,390.0	654.9	447.4	688.7	0.00	0.00	0.00	
13,100.0	90.00	359.39	12,390.0	754.9	446.3	788.3	0.00	0.00	0.00	
13,200.0	90.00	359.39	12,390.0	854.9	445.2	887.9	0.00	0.00	0.00	
13,300.0	90.00	359.39	12,390.0	954.9	444.2	987.5	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3450.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3450.0usft
Site:	Cobalt 32 State	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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	359.39	12,390.0	1,054.9	443.1	1,087.1	0.00	0.00	0.00
13,500.0	90.00	359.39	12,390.0	1,154.9	442.0	1,186.6	0.00	0.00	0.00
13,600.0	90.00	359.39	12,390.0	1,254.9	441.0	1,286.2	0.00	0.00	0.00
13,700.0	90.00	359.39	12,390.0	1,354.9	439.9	1,385.8	0.00	0.00	0.00
13,800.0	90.00	359.39	12,390.0	1,454.9	438.8	1,485.4	0.00	0.00	0.00
13,900.0	90.00	359.39	12,390.0	1,554.8	437.7	1,585.0	0.00	0.00	0.00
14,000.0	90.00	359.39	12,390.0	1,654.8	436.7	1,684.6	0.00	0.00	0.00
14,100.0	90.00	359.39	12,390.0	1,754.8	435.6	1,784.1	0.00	0.00	0.00
14,200.0	90.00	359.39	12,390.0	1,854.8	434.5	1,883.7	0.00	0.00	0.00
14,300.0	90.00	359.39	12,390.0	1,954.8	433.4	1,983.3	0.00	0.00	0.00
14,400.0	90.00	359.39	12,390.0	2,054.8	432.4	2,082.9	0.00	0.00	0.00
14,500.0	90.00	359.39	12,390.0	2,154.8	431.3	2,182.5	0.00	0.00	0.00
14,600.0	90.00	359.39	12,390.0	2,254.8	430.2	2,282.1	0.00	0.00	0.00
14,700.0	90.00	359.39	12,390.0	2,354.8	429.1	2,381.7	0.00	0.00	0.00
14,800.0	90.00	359.39	12,390.0	2,454.8	428.1	2,481.2	0.00	0.00	0.00
14,900.0	90.00	359.39	12,390.0	2,554.8	427.0	2,580.8	0.00	0.00	0.00
15,000.0	90.00	359.39	12,390.0	2,654.8	425.9	2,680.4	0.00	0.00	0.00
15,100.0	90.00	359.39	12,390.0	2,754.8	424.9	2,780.0	0.00	0.00	0.00
15,200.0	90.00	359.39	12,390.0	2,854.8	423.8	2,879.6	0.00	0.00	0.00
15,300.0	90.00	359.39	12,390.0	2,954.8	422.7	2,979.2	0.00	0.00	0.00
15,400.0	90.00	359.39	12,390.0	3,054.8	421.6	3,078.8	0.00	0.00	0.00
15,500.0	90.00	359.39	12,390.0	3,154.8	420.6	3,178.3	0.00	0.00	0.00
15,600.0	90.00	359.39	12,390.0	3,254.7	419.5	3,277.9	0.00	0.00	0.00
15,700.0	90.00	359.39	12,390.0	3,354.7	418.4	3,377.5	0.00	0.00	0.00
15,800.0	90.00	359.39	12,390.0	3,454.7	417.3	3,477.1	0.00	0.00	0.00
15,900.0	90.00	359.39	12,390.0	3,554.7	416.3	3,576.7	0.00	0.00	0.00
16,000.0	90.00	359.39	12,390.0	3,654.7	415.2	3,676.3	0.00	0.00	0.00
16,100.0	90.00	359.39	12,390.0	3,754.7	414.1	3,775.8	0.00	0.00	0.00
16,200.0	90.00	359.39	12,390.0	3,854.7	413.0	3,875.4	0.00	0.00	0.00
16,300.0	90.00	359.39	12,390.0	3,954.7	412.0	3,975.0	0.00	0.00	0.00
16,400.0	90.00	359.39	12,390.0	4,054.7	410.9	4,074.6	0.00	0.00	0.00
16,500.0	90.00	359.39	12,390.0	4,154.7	409.8	4,174.2	0.00	0.00	0.00
16,600.0	90.00	359.39	12,390.0	4,254.7	408.8	4,273.8	0.00	0.00	0.00
16,700.0	90.00	359.39	12,390.0	4,354.7	407.7	4,373.4	0.00	0.00	0.00
16,800.0	90.00	359.39	12,390.0	4,454.7	406.6	4,472.9	0.00	0.00	0.00
16,900.0	90.00	359.39	12,390.0	4,554.7	405.5	4,572.5	0.00	0.00	0.00
17,000.0	90.00	359.39	12,390.0	4,654.7	404.5	4,672.1	0.00	0.00	0.00
17,100.0	90.00	359.39	12,390.0	4,754.7	403.4	4,771.7	0.00	0.00	0.00
17,200.0	90.00	359.39	12,390.0	4,854.7	402.3	4,871.3	0.00	0.00	0.00
17,300.0	90.00	359.39	12,390.0	4,954.7	401.2	4,970.9	0.00	0.00	0.00
17,322.4	90.00	359.39	12,390.0	4,977.0	401.0	4,993.1	0.00	0.00	0.00
PBHL (Cobalt 32 State #708H)									



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #708H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3450.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3450.0usft
Site:	Cobalt 32 State	North Reference:	Grid
Well:	#708H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
KOP (Cobalt 32 State #7 - plan hits target center - Point	0.00	0.01	11,912.5	-147.0	456.0	425,469.00	800,168.00	32° 10' 0.938 N	103° 29' 48.689 W
FTP (Cobalt 32 State #7 - plan misses target center by 163.4usft at 12325.0usft MD (12267.0 TVD, 10.6 N, 454.3 E) - Point	0.00	0.01	12,390.0	-97.0	456.0	425,519.00	800,168.00	32° 10' 1.432 N	103° 29' 48.684 W
PBHL (Cobalt 32 State # - plan hits target center - Point	0.00	0.00	12,390.0	4,977.0	401.0	430,593.00	800,113.00	32° 10' 51.644 N	103° 29' 48.865 W