

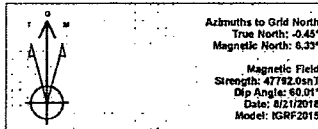
REVISED DRILLING PLAN



Lea County, NM (NAD 83 NME)

Cobalt 32 State Com #703H

Plan #0.2



To convert a Magnetic Direction to a Grid Direction, Add 6.33°
To convert a Magnetic Direction to a True Direction, Add 6.78° East
To convert a True Direction to a Grid Direction, Subtract 0.45°

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1883
Datum: North American Datum 1983
Ellipsoid: GRS 1985
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #703H

KB = 25 @ 3444.0usft 3419.0
Northing 425835.00 Easting 802483.00 Latitude 32° 10' 2.401 N Longitude 103° 29' 21.743 W

SECTION DETAILS

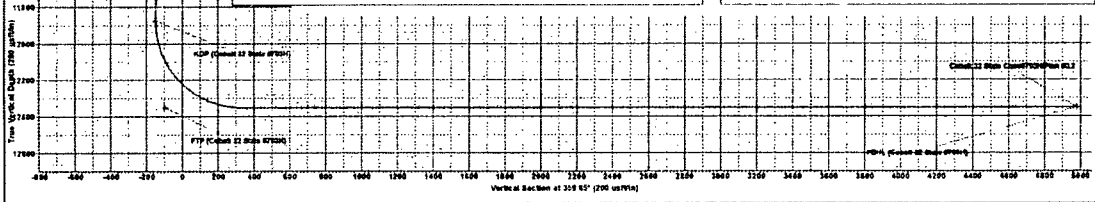
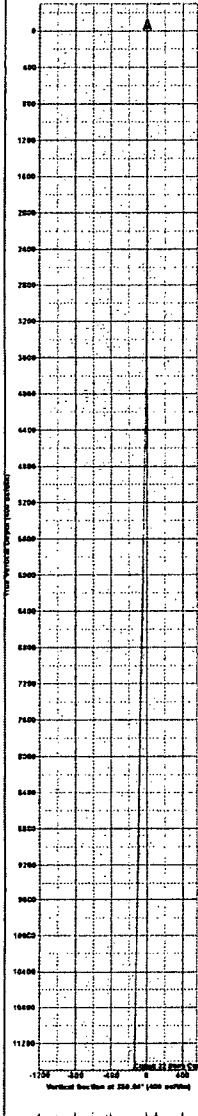
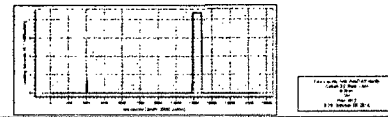
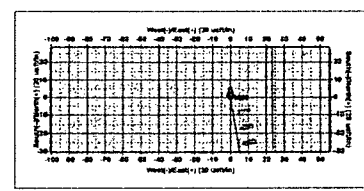
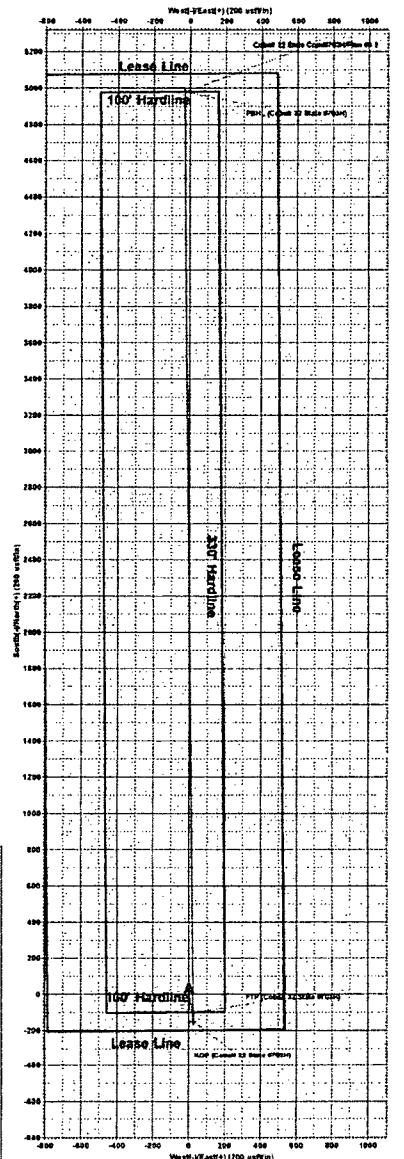
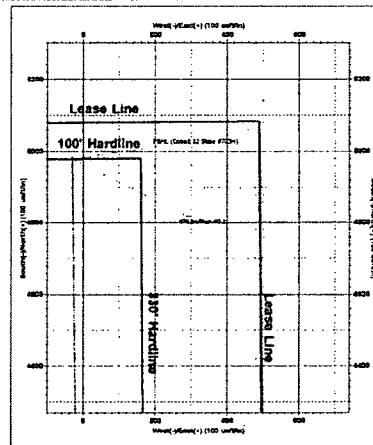
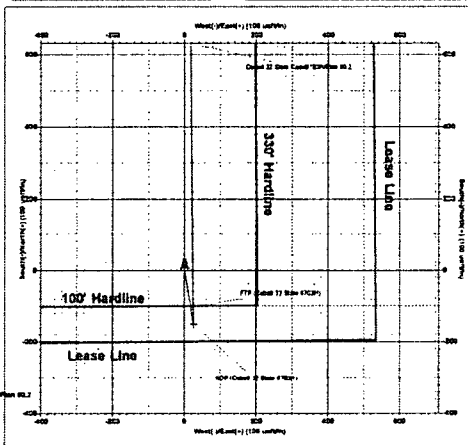
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3049.4	0.99	170.54	3049.4	-0.4	0.1	2.00	170.54	-0.4	
4	11824.4	0.99	170.54	11823.1	-149.6	24.9	0.00	0.00	-149.7	
5	11873.8	0.00	0.00	11872.5	-150.0	25.0	2.00	180.00	-150.1	KOP (Cobalt 32 State #703H)
6	12623.8	90.00	359.39	12350.0	327.4	19.9	12.00	359.39	327.3	
7	17275.6	90.00	359.39	12350.0	4979.0	-30.0	0.00	0.00	4979.1	PBHL (Cobalt 32 State #703H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Cobalt 32 State #703H)	11872.5	-150.0	25.0	425835.00	802508.00
FTP (Cobalt 32 State #703H)	12350.0	-100.0	25.0	425835.00	802508.00
PBHL (Cobalt 32 State #703H)	12350.0	4979.0	-30.0	430814.00	802453.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State Com

#703H

OH

Plan: Plan #0.2

Standard Planning Report

05 October, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3444.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3444.0usft
Site:	Cobalt 32 State Com	North Reference:	Grid
Well:	#703H	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 Com			
Site Position:		Northing:	425,635.00 usft	Latitude: 32° 10' 2.401 N
From:	Map	Easting:	802,483.00 usft	Longitude: 103° 29' 21.743 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.45 °

Well	#703H			
Well Position	+N/-S	0.0 usft	Northing: 425,635.00 usft	Latitude: 32° 10' 2.401 N
	+E/-W	0.0 usft	Easting: 802,483.00 usft	Longitude: 103° 29' 21.743 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 3,419.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/21/2018	6.78	60.01	47,791.98776392

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	359.65

Plan Survey Tool Program	Date			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,275.6 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	
3,049.4	0.99	170.54	3,049.4	-0.4	0.1	2.00	2.00	0.00	170.54	
11,824.4	0.99	170.54	11,823.1	-149.6	24.9	0.00	0.00	0.00	0.00	
11,873.8	0.00	0.00	11,872.5	-150.0	25.0	2.00	-2.00	0.00	180.00	KOP (Cobalt 32 State
12,623.8	90.00	359.39	12,350.0	327.4	19.9	12.00	12.00	-0.08	359.39	
17,275.6	90.00	359.39	12,350.0	4,979.0	-30.0	0.00	0.00	0.00	0.00	PBHL (Cobalt 32 Stat



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3444.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3444.0usft
Site:	Cobalt 32 State Com	North Reference:	Grid
Well:	#703H	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
3,049.4	0.99	170.54	3,049.4	-0.4	0.1	-0.4	2.00	2.00	0.00
3,100.0	0.99	170.54	3,100.0	-1.3	0.2	-1.3	0.00	0.00	0.00
3,200.0	0.99	170.54	3,200.0	-3.0	0.5	-3.0	0.00	0.00	0.00
3,300.0	0.99	170.54	3,300.0	-4.7	0.8	-4.7	0.00	0.00	0.00
3,400.0	0.99	170.54	3,399.9	-6.4	1.1	-6.4	0.00	0.00	0.00
3,500.0	0.99	170.54	3,499.9	-8.1	1.3	-8.1	0.00	0.00	0.00
3,600.0	0.99	170.54	3,599.9	-9.8	1.6	-9.8	0.00	0.00	0.00
3,700.0	0.99	170.54	3,699.9	-11.5	1.9	-11.5	0.00	0.00	0.00
3,800.0	0.99	170.54	3,799.9	-13.2	2.2	-13.2	0.00	0.00	0.00
3,900.0	0.99	170.54	3,899.9	-14.9	2.5	-14.9	0.00	0.00	0.00
4,000.0	0.99	170.54	3,999.9	-16.6	2.8	-16.6	0.00	0.00	0.00
4,100.0	0.99	170.54	4,099.8	-18.3	3.0	-18.3	0.00	0.00	0.00
4,200.0	0.99	170.54	4,199.8	-20.0	3.3	-20.0	0.00	0.00	0.00
4,300.0	0.99	170.54	4,299.8	-21.7	3.6	-21.7	0.00	0.00	0.00
4,400.0	0.99	170.54	4,399.8	-23.4	3.9	-23.4	0.00	0.00	0.00
4,500.0	0.99	170.54	4,499.8	-25.1	4.2	-25.1	0.00	0.00	0.00
4,600.0	0.99	170.54	4,599.8	-26.8	4.5	-26.8	0.00	0.00	0.00
4,700.0	0.99	170.54	4,699.8	-28.5	4.7	-28.5	0.00	0.00	0.00
4,800.0	0.99	170.54	4,799.7	-30.2	5.0	-30.2	0.00	0.00	0.00
4,900.0	0.99	170.54	4,899.7	-31.9	5.3	-31.9	0.00	0.00	0.00
5,000.0	0.99	170.54	4,999.7	-33.6	5.6	-33.6	0.00	0.00	0.00
5,100.0	0.99	170.54	5,099.7	-35.3	5.9	-35.3	0.00	0.00	0.00
5,200.0	0.99	170.54	5,199.7	-37.0	6.2	-37.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3444.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3444.0usft
Site:	Cobalt 32 State Com	North Reference:	Grid
Well:	#703H	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	0.99	170.54	5,299.7	-38.7	6.4	-38.7	0.00	0.00	0.00
5,400.0	0.99	170.54	5,399.6	-40.4	6.7	-40.4	0.00	0.00	0.00
5,500.0	0.99	170.54	5,499.6	-42.1	7.0	-42.1	0.00	0.00	0.00
5,600.0	0.99	170.54	5,599.6	-43.8	7.3	-43.8	0.00	0.00	0.00
5,700.0	0.99	170.54	5,699.6	-45.5	7.6	-45.5	0.00	0.00	0.00
5,800.0	0.99	170.54	5,799.6	-47.2	7.9	-47.2	0.00	0.00	0.00
5,900.0	0.99	170.54	5,899.6	-48.9	8.1	-48.9	0.00	0.00	0.00
6,000.0	0.99	170.54	5,999.6	-50.6	8.4	-50.6	0.00	0.00	0.00
6,100.0	0.99	170.54	6,099.5	-52.3	8.7	-52.3	0.00	0.00	0.00
6,200.0	0.99	170.54	6,199.5	-54.0	9.0	-54.0	0.00	0.00	0.00
6,300.0	0.99	170.54	6,299.5	-55.7	9.3	-55.7	0.00	0.00	0.00
6,400.0	0.99	170.54	6,399.5	-57.4	9.6	-57.4	0.00	0.00	0.00
6,500.0	0.99	170.54	6,499.5	-59.1	9.8	-59.1	0.00	0.00	0.00
6,600.0	0.99	170.54	6,599.5	-60.8	10.1	-60.8	0.00	0.00	0.00
6,700.0	0.99	170.54	6,699.5	-62.5	10.4	-62.5	0.00	0.00	0.00
6,800.0	0.99	170.54	6,799.4	-64.2	10.7	-64.2	0.00	0.00	0.00
6,900.0	0.99	170.54	6,899.4	-65.9	11.0	-65.9	0.00	0.00	0.00
7,000.0	0.99	170.54	6,999.4	-67.6	11.3	-67.6	0.00	0.00	0.00
7,100.0	0.99	170.54	7,099.4	-69.3	11.5	-69.3	0.00	0.00	0.00
7,200.0	0.99	170.54	7,199.4	-71.0	11.8	-71.0	0.00	0.00	0.00
7,300.0	0.99	170.54	7,299.4	-72.7	12.1	-72.7	0.00	0.00	0.00
7,400.0	0.99	170.54	7,399.4	-74.4	12.4	-74.4	0.00	0.00	0.00
7,500.0	0.99	170.54	7,499.3	-76.1	12.7	-76.1	0.00	0.00	0.00
7,600.0	0.99	170.54	7,599.3	-77.8	13.0	-77.8	0.00	0.00	0.00
7,700.0	0.99	170.54	7,699.3	-79.5	13.2	-79.6	0.00	0.00	0.00
7,800.0	0.99	170.54	7,799.3	-81.2	13.5	-81.3	0.00	0.00	0.00
7,900.0	0.99	170.54	7,899.3	-82.9	13.8	-83.0	0.00	0.00	0.00
8,000.0	0.99	170.54	7,999.3	-84.6	14.1	-84.7	0.00	0.00	0.00
8,100.0	0.99	170.54	8,099.2	-86.3	14.4	-86.4	0.00	0.00	0.00
8,200.0	0.99	170.54	8,199.2	-88.0	14.7	-88.1	0.00	0.00	0.00
8,300.0	0.99	170.54	8,299.2	-89.7	14.9	-89.8	0.00	0.00	0.00
8,400.0	0.99	170.54	8,399.2	-91.4	15.2	-91.5	0.00	0.00	0.00
8,500.0	0.99	170.54	8,499.2	-93.1	15.5	-93.2	0.00	0.00	0.00
8,600.0	0.99	170.54	8,599.2	-94.8	15.8	-94.9	0.00	0.00	0.00
8,700.0	0.99	170.54	8,699.2	-96.5	16.1	-96.6	0.00	0.00	0.00
8,800.0	0.99	170.54	8,799.1	-98.2	16.4	-98.3	0.00	0.00	0.00
8,900.0	0.99	170.54	8,899.1	-99.9	16.6	-100.0	0.00	0.00	0.00
9,000.0	0.99	170.54	8,999.1	-101.6	16.9	-101.7	0.00	0.00	0.00
9,100.0	0.99	170.54	9,099.1	-103.3	17.2	-103.4	0.00	0.00	0.00
9,200.0	0.99	170.54	9,199.1	-105.0	17.5	-105.1	0.00	0.00	0.00
9,300.0	0.99	170.54	9,299.1	-106.7	17.8	-106.8	0.00	0.00	0.00
9,400.0	0.99	170.54	9,399.1	-108.4	18.1	-108.5	0.00	0.00	0.00
9,500.0	0.99	170.54	9,499.0	-110.1	18.3	-110.2	0.00	0.00	0.00
9,600.0	0.99	170.54	9,599.0	-111.8	18.6	-111.9	0.00	0.00	0.00
9,700.0	0.99	170.54	9,699.0	-113.5	18.9	-113.6	0.00	0.00	0.00
9,800.0	0.99	170.54	9,799.0	-115.2	19.2	-115.3	0.00	0.00	0.00
9,900.0	0.99	170.54	9,899.0	-116.9	19.5	-117.0	0.00	0.00	0.00
10,000.0	0.99	170.54	9,999.0	-118.6	19.8	-118.7	0.00	0.00	0.00
10,100.0	0.99	170.54	10,099.0	-120.3	20.0	-120.4	0.00	0.00	0.00
10,200.0	0.99	170.54	10,198.9	-122.0	20.3	-122.1	0.00	0.00	0.00
10,300.0	0.99	170.54	10,298.9	-123.7	20.6	-123.8	0.00	0.00	0.00
10,400.0	0.99	170.54	10,398.9	-125.4	20.9	-125.5	0.00	0.00	0.00
10,500.0	0.99	170.54	10,498.9	-127.1	21.2	-127.2	0.00	0.00	0.00
10,600.0	0.99	170.54	10,598.9	-128.8	21.5	-128.9	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State Com
Well: #703H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25 @ 3444.0usft
MD Reference: KB = 25 @ 3444.0usft
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	0.99	170.54	10,698.9	-130.5	21.7	-130.6	0.00	0.00	0.00
10,800.0	0.99	170.54	10,798.8	-132.2	22.0	-132.3	0.00	0.00	0.00
10,900.0	0.99	170.54	10,898.8	-133.9	22.3	-134.0	0.00	0.00	0.00
11,000.0	0.99	170.54	10,998.8	-135.6	22.6	-135.7	0.00	0.00	0.00
11,100.0	0.99	170.54	11,098.8	-137.3	22.9	-137.4	0.00	0.00	0.00
11,200.0	0.99	170.54	11,198.8	-139.0	23.2	-139.1	0.00	0.00	0.00
11,300.0	0.99	170.54	11,298.8	-140.7	23.4	-140.8	0.00	0.00	0.00
11,400.0	0.99	170.54	11,398.8	-142.4	23.7	-142.5	0.00	0.00	0.00
11,500.0	0.99	170.54	11,498.7	-144.1	24.0	-144.2	0.00	0.00	0.00
11,600.0	0.99	170.54	11,598.7	-145.8	24.3	-145.9	0.00	0.00	0.00
11,700.0	0.99	170.54	11,698.7	-147.5	24.6	-147.6	0.00	0.00	0.00
11,800.0	0.99	170.54	11,798.7	-149.2	24.9	-149.3	0.00	0.00	0.00
11,824.4	0.99	170.54	11,823.1	-149.6	24.9	-149.7	0.00	0.00	0.00
11,873.8	0.00	0.00	11,872.5	-150.0	25.0	-150.1	2.00	-2.00	0.00
KOP (Cobalt 32 State #703H)									
11,875.0	0.14	359.39	11,873.7	-150.0	25.0	-150.1	12.00	12.00	0.00
11,900.0	3.14	359.39	11,898.7	-149.3	25.0	-149.4	12.00	12.00	0.00
11,925.0	6.14	359.39	11,923.6	-147.3	25.0	-147.4	12.00	12.00	0.00
11,950.0	9.14	359.39	11,948.4	-143.9	24.9	-144.1	12.00	12.00	0.00
11,975.0	12.14	359.39	11,972.9	-139.3	24.9	-139.5	12.00	12.00	0.00
12,000.0	15.14	359.39	11,997.2	-133.4	24.8	-133.6	12.00	12.00	0.00
12,025.0	18.14	359.39	12,021.2	-126.3	24.7	-126.4	12.00	12.00	0.00
12,050.0	21.14	359.39	12,044.7	-117.9	24.7	-118.0	12.00	12.00	0.00
12,075.0	24.14	359.39	12,067.8	-108.2	24.6	-108.4	12.00	12.00	0.00
12,100.0	27.14	359.39	12,090.3	-97.4	24.4	-97.6	12.00	12.00	0.00
12,125.0	30.14	359.39	12,112.3	-85.4	24.3	-85.6	12.00	12.00	0.00
12,150.0	33.14	359.39	12,133.5	-72.3	24.2	-72.5	12.00	12.00	0.00
12,175.0	36.14	359.39	12,154.1	-58.1	24.0	-58.3	12.00	12.00	0.00
12,200.0	39.14	359.39	12,173.9	-42.8	23.9	-43.0	12.00	12.00	0.00
12,225.0	42.14	359.39	12,192.9	-26.6	23.7	-26.7	12.00	12.00	0.00
12,250.0	45.14	359.39	12,211.0	-9.3	23.5	-9.5	12.00	12.00	0.00
12,275.0	48.14	359.39	12,228.1	8.9	23.3	8.7	12.00	12.00	0.00
FTP (Cobalt 32 State #703H)									
12,300.0	51.14	359.39	12,244.3	27.9	23.1	27.8	12.00	12.00	0.00
12,325.0	54.14	359.39	12,259.5	47.8	22.9	47.6	12.00	12.00	0.00
12,350.0	57.14	359.39	12,273.6	68.4	22.7	68.3	12.00	12.00	0.00
12,375.0	60.14	359.39	12,286.6	89.8	22.4	89.6	12.00	12.00	0.00
12,400.0	63.14	359.39	12,298.5	111.7	22.2	111.6	12.00	12.00	0.00
12,425.0	66.14	359.39	12,309.2	134.3	22.0	134.2	12.00	12.00	0.00
12,450.0	69.14	359.39	12,318.7	157.5	21.7	157.3	12.00	12.00	0.00
12,475.0	72.14	359.39	12,327.0	181.0	21.5	180.9	12.00	12.00	0.00
12,500.0	75.14	359.39	12,334.0	205.0	21.2	204.9	12.00	12.00	0.00
12,525.0	78.14	359.39	12,339.8	229.3	20.9	229.2	12.00	12.00	0.00
12,550.0	81.14	359.39	12,344.3	253.9	20.7	253.8	12.00	12.00	0.00
12,575.0	84.14	359.39	12,347.5	278.7	20.4	278.6	12.00	12.00	0.00
12,600.0	87.14	359.39	12,349.4	303.6	20.1	303.5	12.00	12.00	0.00
12,623.8	90.00	359.39	12,350.0	327.4	19.9	327.3	12.00	12.00	0.00
12,700.0	90.00	359.39	12,350.0	403.6	19.1	403.5	0.00	0.00	0.00
12,800.0	90.00	359.39	12,350.0	503.6	18.0	503.5	0.00	0.00	0.00
12,900.0	90.00	359.39	12,350.0	603.6	16.9	603.5	0.00	0.00	0.00
13,000.0	90.00	359.39	12,350.0	703.6	15.8	703.5	0.00	0.00	0.00
13,100.0	90.00	359.39	12,350.0	803.6	14.8	803.5	0.00	0.00	0.00
13,200.0	90.00	359.39	12,350.0	903.6	13.7	903.5	0.00	0.00	0.00
13,300.0	90.00	359.39	12,350.0	1,003.6	12.6	1,003.5	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3444.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3444.0usft
Site:	Cobalt 32 State Com	North Reference:	Grid
Well:	#703H	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	12,350.0	1,103.6	11.6	1,103.5	0.00	0.00	0.00
13,500.0	90.00	359.39	12,350.0	1,203.6	10.5	1,203.5	0.00	0.00	0.00
13,600.0	90.00	359.39	12,350.0	1,303.6	9.4	1,303.5	0.00	0.00	0.00
13,700.0	90.00	359.39	12,350.0	1,403.6	8.3	1,403.5	0.00	0.00	0.00
13,800.0	90.00	359.39	12,350.0	1,503.6	7.3	1,503.5	0.00	0.00	0.00
13,900.0	90.00	359.39	12,350.0	1,603.6	6.2	1,603.5	0.00	0.00	0.00
14,000.0	90.00	359.39	12,350.0	1,703.6	5.1	1,703.5	0.00	0.00	0.00
14,100.0	90.00	359.39	12,350.0	1,803.5	4.1	1,803.5	0.00	0.00	0.00
14,200.0	90.00	359.39	12,350.0	1,903.5	3.0	1,903.5	0.00	0.00	0.00
14,300.0	90.00	359.39	12,350.0	2,003.5	1.9	2,003.5	0.00	0.00	0.00
14,400.0	90.00	359.39	12,350.0	2,103.5	0.8	2,103.5	0.00	0.00	0.00
14,500.0	90.00	359.39	12,350.0	2,203.5	-0.2	2,203.5	0.00	0.00	0.00
14,600.0	90.00	359.39	12,350.0	2,303.5	-1.3	2,303.5	0.00	0.00	0.00
14,700.0	90.00	359.39	12,350.0	2,403.5	-2.4	2,403.5	0.00	0.00	0.00
14,800.0	90.00	359.39	12,350.0	2,503.5	-3.5	2,503.5	0.00	0.00	0.00
14,900.0	90.00	359.39	12,350.0	2,603.5	-4.5	2,603.5	0.00	0.00	0.00
15,000.0	90.00	359.39	12,350.0	2,703.5	-5.6	2,703.5	0.00	0.00	0.00
15,100.0	90.00	359.39	12,350.0	2,803.5	-6.7	2,803.5	0.00	0.00	0.00
15,200.0	90.00	359.39	12,350.0	2,903.5	-7.7	2,903.5	0.00	0.00	0.00
15,300.0	90.00	359.39	12,350.0	3,003.5	-8.8	3,003.5	0.00	0.00	0.00
15,400.0	90.00	359.39	12,350.0	3,103.5	-9.9	3,103.5	0.00	0.00	0.00
15,500.0	90.00	359.39	12,350.0	3,203.5	-11.0	3,203.5	0.00	0.00	0.00
15,600.0	90.00	359.39	12,350.0	3,303.5	-12.0	3,303.5	0.00	0.00	0.00
15,700.0	90.00	359.39	12,350.0	3,403.5	-13.1	3,403.5	0.00	0.00	0.00
15,800.0	90.00	359.39	12,350.0	3,503.4	-14.2	3,503.5	0.00	0.00	0.00
15,900.0	90.00	359.39	12,350.0	3,603.4	-15.2	3,603.5	0.00	0.00	0.00
16,000.0	90.00	359.39	12,350.0	3,703.4	-16.3	3,703.5	0.00	0.00	0.00
16,100.0	90.00	359.39	12,350.0	3,803.4	-17.4	3,803.5	0.00	0.00	0.00
16,200.0	90.00	359.39	12,350.0	3,903.4	-18.5	3,903.5	0.00	0.00	0.00
16,300.0	90.00	359.39	12,350.0	4,003.4	-19.5	4,003.5	0.00	0.00	0.00
16,400.0	90.00	359.39	12,350.0	4,103.4	-20.6	4,103.5	0.00	0.00	0.00
16,500.0	90.00	359.39	12,350.0	4,203.4	-21.7	4,203.5	0.00	0.00	0.00
16,600.0	90.00	359.39	12,350.0	4,303.4	-22.8	4,303.5	0.00	0.00	0.00
16,700.0	90.00	359.39	12,350.0	4,403.4	-23.8	4,403.5	0.00	0.00	0.00
16,800.0	90.00	359.39	12,350.0	4,503.4	-24.9	4,503.5	0.00	0.00	0.00
16,900.0	90.00	359.39	12,350.0	4,603.4	-26.0	4,603.5	0.00	0.00	0.00
17,000.0	90.00	359.39	12,350.0	4,703.4	-27.0	4,703.5	0.00	0.00	0.00
17,100.0	90.00	359.39	12,350.0	4,803.4	-28.1	4,803.5	0.00	0.00	0.00
17,200.0	90.00	359.39	12,350.0	4,903.4	-29.2	4,903.5	0.00	0.00	0.00
17,275.6	90.00	359.39	12,350.0	4,979.0	-30.0	4,979.1	0.00	0.00	0.00
PBHL (Cobalt 32 State #703H)									



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3444.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3444.0usft
Site:	Cobalt 32 State Com	North Reference:	Grid
Well:	#703H	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	0.00	11,872.5	-150.0	25.0	425,485.00	802,508.00	32° 10' 0.915 N	103° 29' 21.466 W
PBHL (Cobalt 32 State # - plan hits target center - Point	0.00	0.00	12,350.0	4,979.0	-30.0	430,614.00	802,453.00	32° 10' 51.671 N	103° 29' 21.637 W
FTP (Cobalt 32 State #7 - plan misses target center by 163.4usft at 12275.0usft MD (12228.1 TVD, 8.9 N, 23.3 E) - Point	0.00	0.00	12,350.0	-100.0	25.0	425,535.00	802,508.00	32° 10' 1.410 N	103° 29' 21.461 W