

AUG 23 2018

RECEIVED



Lea County, NM (NAD 83 NME)

Cobalt 32 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 @ 3444.0usft
 3419.0
 Northing 425835.90 Easting 902463.00 Latitude 32° 10' 2.401 N Longitude 103° 29' 21.743 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	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	3119.7	2.39	113.69	3119.6	-1.0	2.3	2.00	113.89	-0.9	
4	11760.4	2.39	113.69	11752.9	-146.0	332.7	0.00	0.00	-127.1	
5	11880.1	0.00	0.00	11872.5	-147.0	335.0	2.00	180.00	-128.0	KOP (Cobalt 32 State #703H)
6	12630.1	90.00	359.39	12350.0	330.4	329.9	12.00	359.39	348.4	PBHL (Cobalt 32 State #703H)
7	17280.9	90.00	359.39	12350.0	4981.0	280.0	0.00	0.00	4988.9	



Altitudes to Grid North
 True North: -0.40°
 Magnetic North: 8.33°
 Magnetic Field
 Strength: 47762.6mT
 Dip Angle: 80.01°
 Date: 8/21/2018
 Model: IGRF2015

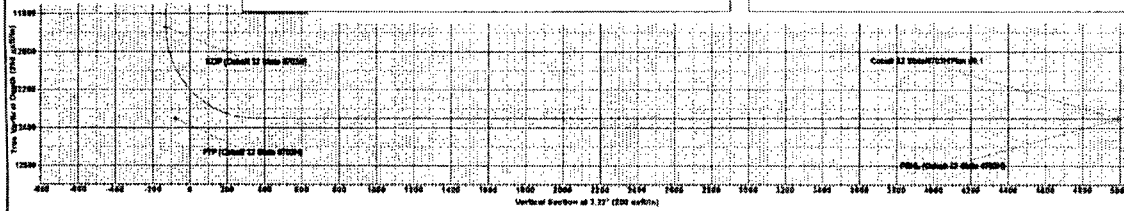
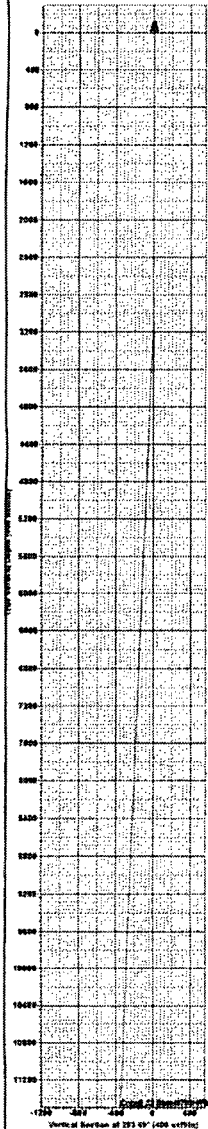
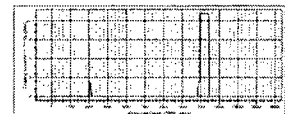
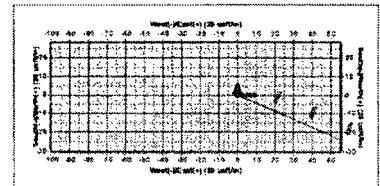
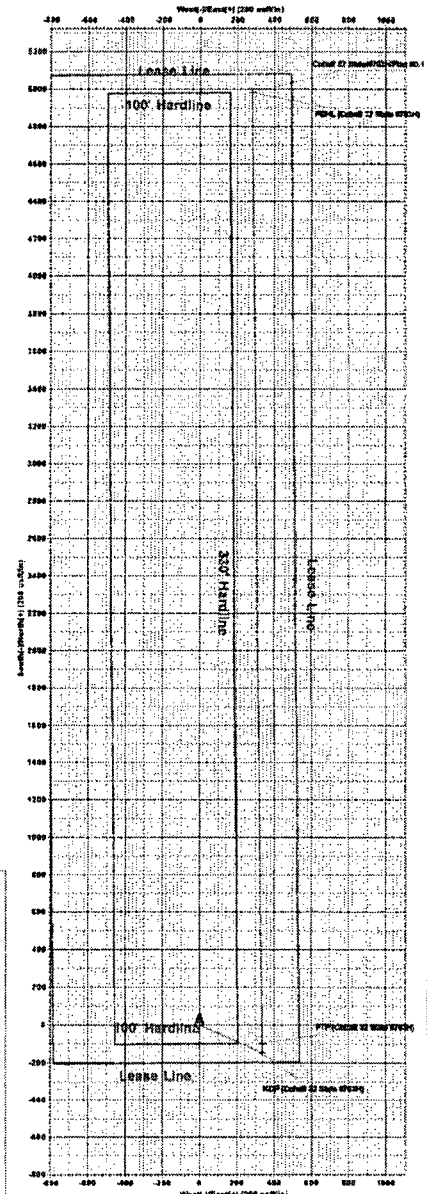
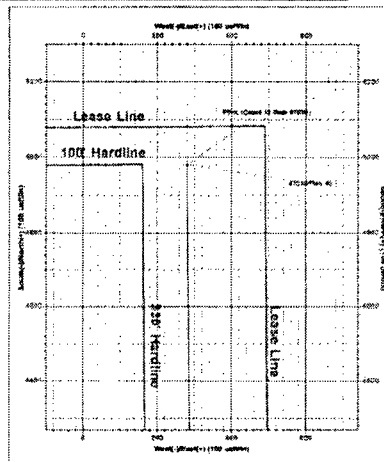
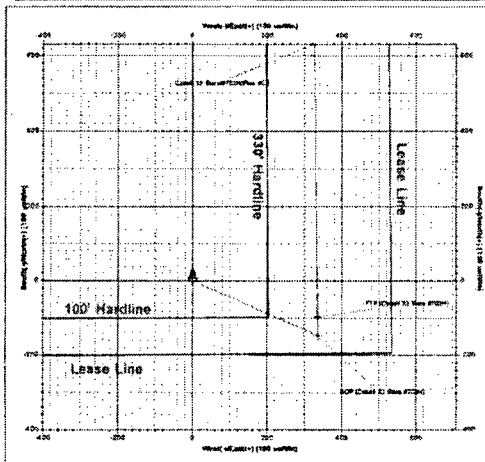
To convert a Magnetic Direction to a Grid Direction, Add 8.33°
 To convert a Magnetic Direction to a True Direction, Add 8.78° East
 To convert a True Direction to a Grid Direction, Subtract 0.45°

CARTON DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
KOP (Cobalt 32 State #703H)	11872.5	-147.0	335.0	425835.90	902463.00
FTP (Cobalt 32 State #703H)	12350.0	-47.0	338.0	425835.90	902463.00
PBHL (Cobalt 32 State #703H)	12250.0	4981.0	280.0	430816.00	90783.00





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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State

#703H

OH

Plan: Plan #0.1

Standard Planning Report

21 August, 2018

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #703H
Wellbore: OH
Design: Plan #0.1

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

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

Well: #703H
Well Position **+N/-S** -10.0 usft **Northing:** 425,635.00 usft **Latitude:** 32° 10' 2.401 N
+E/-W -1,208.0 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**
 IGRF2015 8/21/2018 (°) (°) (nT)
 6.78 60.01 47,791.98776392

Design: Plan #0.1
Audit Notes:
Version: **Phase:** PLAN **Tie On Depth:** 0.0
Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Direction**
 (usft) (usft) (usft) (°)
 0.0 0.0 0.0 3.22

Plan Survey Tool Program **Date** 8/21/2018
Depth From **Depth To** **Survey (Wellbore)** **Tool Name** **Remarks**
 (usft) (usft)
 1 0.0 17,280.9 Plan #0.1 (OH) MWD
 OWSG MWD - Standard

Plan Sections
Measured **Vertical** **Dogleg** **Build** **Turn** **TFO** **Target**
Depth **Inclination** **Azimuth** **Depth** **+N/-S** **+E/-W** **Rate** **Rate** **Rate** **(°)**
 (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (°)
 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
 3,119.7 2.39 113.69 3,119.6 -1.0 2.3 2.00 2.00 0.00 113.69
 11,760.4 2.39 113.69 11,752.9 -146.0 332.7 0.00 0.00 0.00 0.00
 11,880.1 0.00 0.00 11,872.5 -147.0 335.0 2.00 -2.00 0.00 180.00 KOP (Cobalt 32 State
 12,630.1 90.00 359.39 12,350.0 330.4 329.9 12.00 12.00 -0.08 359.39
 17,280.9 90.00 359.39 12,350.0 4,981.0 280.0 0.00 0.00 0.00 0.00 PBHL (Cobalt 32 State



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Cobalt 32 State
 Well: #703H
 Wellbore: OH
 Design: Plan #0.1

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)
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	113.69	3,100.0	-0.7	1.6	-0.6	2.00	2.00	0.00
3,119.7	2.39	113.69	3,119.6	-1.0	2.3	-0.9	2.00	2.00	0.00
3,200.0	2.39	113.69	3,199.9	-2.4	5.4	-2.0	0.00	0.00	0.00
3,300.0	2.39	113.69	3,299.8	-4.0	9.2	-3.5	0.00	0.00	0.00
3,400.0	2.39	113.69	3,399.7	-5.7	13.0	-5.0	0.00	0.00	0.00
3,500.0	2.39	113.69	3,499.6	-7.4	16.8	-6.4	0.00	0.00	0.00
3,600.0	2.39	113.69	3,599.5	-9.1	20.7	-7.9	0.00	0.00	0.00
3,700.0	2.39	113.69	3,699.5	-10.7	24.5	-9.4	0.00	0.00	0.00
3,800.0	2.39	113.69	3,799.4	-12.4	28.3	-10.8	0.00	0.00	0.00
3,900.0	2.39	113.69	3,899.3	-14.1	32.1	-12.3	0.00	0.00	0.00
4,000.0	2.39	113.69	3,999.2	-15.8	36.0	-13.7	0.00	0.00	0.00
4,100.0	2.39	113.69	4,099.1	-17.5	39.8	-15.2	0.00	0.00	0.00
4,200.0	2.39	113.69	4,199.0	-19.1	43.6	-16.7	0.00	0.00	0.00
4,300.0	2.39	113.69	4,298.9	-20.8	47.4	-18.1	0.00	0.00	0.00
4,400.0	2.39	113.69	4,398.8	-22.5	51.2	-19.6	0.00	0.00	0.00
4,500.0	2.39	113.69	4,498.8	-24.2	55.1	-21.0	0.00	0.00	0.00
4,600.0	2.39	113.69	4,598.7	-25.8	58.9	-22.5	0.00	0.00	0.00
4,700.0	2.39	113.69	4,698.6	-27.5	62.7	-24.0	0.00	0.00	0.00
4,800.0	2.39	113.69	4,798.5	-29.2	66.5	-25.4	0.00	0.00	0.00
4,900.0	2.39	113.69	4,898.4	-30.9	70.4	-26.9	0.00	0.00	0.00
5,000.0	2.39	113.69	4,998.3	-32.6	74.2	-28.3	0.00	0.00	0.00
5,100.0	2.39	113.69	5,098.2	-34.2	78.0	-29.8	0.00	0.00	0.00
5,200.0	2.39	113.69	5,198.2	-35.9	81.8	-31.3	0.00	0.00	0.00

Database: EDM 5000.14
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Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #703H
Wellbore: OH
Design: Plan #0.1

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)
5,300.0	2.39	113.69	5,298.1	-37.6	85.7	-32.7	0.00	0.00	0.00
5,400.0	2.39	113.69	5,398.0	-39.3	89.5	-34.2	0.00	0.00	0.00
5,500.0	2.39	113.69	5,497.9	-40.9	93.3	-35.6	0.00	0.00	0.00
5,600.0	2.39	113.69	5,597.8	-42.6	97.1	-37.1	0.00	0.00	0.00
5,700.0	2.39	113.69	5,697.7	-44.3	101.0	-38.6	0.00	0.00	0.00
5,800.0	2.39	113.69	5,797.6	-46.0	104.8	-40.0	0.00	0.00	0.00
5,900.0	2.39	113.69	5,897.5	-47.7	108.6	-41.5	0.00	0.00	0.00
6,000.0	2.39	113.69	5,997.5	-49.3	112.4	-42.9	0.00	0.00	0.00
6,100.0	2.39	113.69	6,097.4	-51.0	116.3	-44.4	0.00	0.00	0.00
6,200.0	2.39	113.69	6,197.3	-52.7	120.1	-45.9	0.00	0.00	0.00
6,300.0	2.39	113.69	6,297.2	-54.4	123.9	-47.3	0.00	0.00	0.00
6,400.0	2.39	113.69	6,397.1	-56.0	127.7	-48.8	0.00	0.00	0.00
6,500.0	2.39	113.69	6,497.0	-57.7	131.6	-50.3	0.00	0.00	0.00
6,600.0	2.39	113.69	6,596.9	-59.4	135.4	-51.7	0.00	0.00	0.00
6,700.0	2.39	113.69	6,696.8	-61.1	139.2	-53.2	0.00	0.00	0.00
6,800.0	2.39	113.69	6,796.8	-62.8	143.0	-54.6	0.00	0.00	0.00
6,900.0	2.39	113.69	6,896.7	-64.4	146.8	-56.1	0.00	0.00	0.00
7,000.0	2.39	113.69	6,996.6	-66.1	150.7	-57.6	0.00	0.00	0.00
7,100.0	2.39	113.69	7,096.5	-67.8	154.5	-59.0	0.00	0.00	0.00
7,200.0	2.39	113.69	7,196.4	-69.5	158.3	-60.5	0.00	0.00	0.00
7,300.0	2.39	113.69	7,296.3	-71.1	162.1	-61.9	0.00	0.00	0.00
7,400.0	2.39	113.69	7,396.2	-72.8	166.0	-63.4	0.00	0.00	0.00
7,500.0	2.39	113.69	7,496.1	-74.5	169.8	-64.9	0.00	0.00	0.00
7,600.0	2.39	113.69	7,596.1	-76.2	173.6	-66.3	0.00	0.00	0.00
7,700.0	2.39	113.69	7,696.0	-77.9	177.4	-67.8	0.00	0.00	0.00
7,800.0	2.39	113.69	7,795.9	-79.5	181.3	-69.2	0.00	0.00	0.00
7,900.0	2.39	113.69	7,895.8	-81.2	185.1	-70.7	0.00	0.00	0.00
8,000.0	2.39	113.69	7,995.7	-82.9	188.9	-72.2	0.00	0.00	0.00
8,100.0	2.39	113.69	8,095.6	-84.6	192.7	-73.6	0.00	0.00	0.00
8,200.0	2.39	113.69	8,195.5	-86.3	196.6	-75.1	0.00	0.00	0.00
8,300.0	2.39	113.69	8,295.4	-87.9	200.4	-76.5	0.00	0.00	0.00
8,400.0	2.39	113.69	8,395.4	-89.6	204.2	-78.0	0.00	0.00	0.00
8,500.0	2.39	113.69	8,495.3	-91.3	208.0	-79.5	0.00	0.00	0.00
8,600.0	2.39	113.69	8,595.2	-93.0	211.9	-80.9	0.00	0.00	0.00
8,700.0	2.39	113.69	8,695.1	-94.6	215.7	-82.4	0.00	0.00	0.00
8,800.0	2.39	113.69	8,795.0	-96.3	219.5	-83.8	0.00	0.00	0.00
8,900.0	2.39	113.69	8,894.9	-98.0	223.3	-85.3	0.00	0.00	0.00
9,000.0	2.39	113.69	8,994.8	-99.7	227.2	-86.8	0.00	0.00	0.00
9,100.0	2.39	113.69	9,094.7	-101.4	231.0	-88.2	0.00	0.00	0.00
9,200.0	2.39	113.69	9,194.7	-103.0	234.8	-89.7	0.00	0.00	0.00
9,300.0	2.39	113.69	9,294.6	-104.7	238.6	-91.2	0.00	0.00	0.00
9,400.0	2.39	113.69	9,394.5	-106.4	242.4	-92.6	0.00	0.00	0.00
9,500.0	2.39	113.69	9,494.4	-108.1	246.3	-94.1	0.00	0.00	0.00
9,600.0	2.39	113.69	9,594.3	-109.7	250.1	-95.5	0.00	0.00	0.00
9,700.0	2.39	113.69	9,694.2	-111.4	253.9	-97.0	0.00	0.00	0.00
9,800.0	2.39	113.69	9,794.1	-113.1	257.7	-98.5	0.00	0.00	0.00
9,900.0	2.39	113.69	9,894.1	-114.8	261.6	-99.9	0.00	0.00	0.00
10,000.0	2.39	113.69	9,994.0	-116.5	265.4	-101.4	0.00	0.00	0.00
10,100.0	2.39	113.69	10,093.9	-118.1	269.2	-102.8	0.00	0.00	0.00
10,200.0	2.39	113.69	10,193.8	-119.8	273.0	-104.3	0.00	0.00	0.00
10,300.0	2.39	113.69	10,293.7	-121.5	276.9	-105.8	0.00	0.00	0.00
10,400.0	2.39	113.69	10,393.6	-123.2	280.7	-107.2	0.00	0.00	0.00
10,500.0	2.39	113.69	10,493.5	-124.8	284.5	-108.7	0.00	0.00	0.00
10,600.0	2.39	113.69	10,593.4	-126.5	288.3	-110.1	0.00	0.00	0.00

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Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #703H
Wellbore: OH
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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	2.39	113.69	10,693.4	-128.2	292.2	-111.6	0.00	0.00	0.00
10,800.0	2.39	113.69	10,793.3	-129.9	296.0	-113.1	0.00	0.00	0.00
10,900.0	2.39	113.69	10,893.2	-131.6	299.8	-114.5	0.00	0.00	0.00
11,000.0	2.39	113.69	10,993.1	-133.2	303.6	-116.0	0.00	0.00	0.00
11,100.0	2.39	113.69	11,093.0	-134.9	307.5	-117.4	0.00	0.00	0.00
11,200.0	2.39	113.69	11,192.9	-136.6	311.3	-118.9	0.00	0.00	0.00
11,300.0	2.39	113.69	11,292.8	-138.3	315.1	-120.4	0.00	0.00	0.00
11,400.0	2.39	113.69	11,392.7	-139.9	318.9	-121.8	0.00	0.00	0.00
11,500.0	2.39	113.69	11,492.7	-141.6	322.8	-123.3	0.00	0.00	0.00
11,600.0	2.39	113.69	11,592.6	-143.3	326.6	-124.7	0.00	0.00	0.00
11,700.0	2.39	113.69	11,692.5	-145.0	330.4	-126.2	0.00	0.00	0.00
11,760.4	2.39	113.69	11,752.9	-146.0	332.7	-127.1	0.00	0.00	0.00
11,800.0	1.60	113.69	11,792.4	-146.5	334.0	-127.6	2.00	-2.00	0.00
11,880.1	0.00	0.00	11,872.5	-147.0	335.0	-128.0	2.00	-2.00	0.00
KOP (Cobalt 32 State #703H)									
11,900.0	2.39	359.39	11,892.4	-146.6	335.0	-127.6	12.00	12.00	0.00
11,925.0	5.39	359.39	11,917.3	-144.9	335.0	-125.9	12.00	12.00	0.00
11,950.0	8.39	359.39	11,942.1	-141.9	334.9	-122.9	12.00	12.00	0.00
11,975.0	11.39	359.39	11,966.8	-137.6	334.9	-118.6	12.00	12.00	0.00
12,000.0	14.39	359.39	11,991.1	-132.0	334.8	-113.0	12.00	12.00	0.00
12,025.0	17.39	359.39	12,015.2	-125.2	334.8	-106.2	12.00	12.00	0.00
12,050.0	20.39	359.39	12,038.8	-117.1	334.7	-98.1	12.00	12.00	0.00
12,075.0	23.39	359.39	12,062.0	-107.8	334.6	-88.8	12.00	12.00	0.00
12,100.0	26.39	359.39	12,084.7	-97.3	334.5	-78.3	12.00	12.00	0.00
12,125.0	29.39	359.39	12,106.8	-85.6	334.3	-66.7	12.00	12.00	0.00
12,150.0	32.39	359.39	12,128.2	-72.7	334.2	-53.9	12.00	12.00	0.00
12,175.0	35.39	359.39	12,149.0	-58.8	334.1	-40.0	12.00	12.00	0.00
12,200.0	38.39	359.39	12,169.0	-43.8	333.9	-25.0	12.00	12.00	0.00
12,225.0	41.39	359.39	12,188.2	-27.8	333.7	-9.0	12.00	12.00	0.00
12,250.0	44.39	359.39	12,206.5	-10.8	333.5	8.0	12.00	12.00	0.00
12,275.0	47.39	359.39	12,223.9	7.2	333.3	25.9	12.00	12.00	0.00
12,279.4	47.92	359.39	12,226.9	10.5	333.3	29.1	12.00	12.00	0.00
FTP (Cobalt 32 State #703H)									
12,300.0	50.39	359.39	12,240.3	26.0	333.1	44.7	12.00	12.00	0.00
12,325.0	53.39	359.39	12,255.8	45.7	332.9	64.3	12.00	12.00	0.00
12,350.0	56.39	359.39	12,270.1	66.1	332.7	84.7	12.00	12.00	0.00
12,375.0	59.39	359.39	12,283.4	87.3	332.5	105.8	12.00	12.00	0.00
12,400.0	62.39	359.39	12,295.6	109.1	332.3	127.6	12.00	12.00	0.00
12,425.0	65.39	359.39	12,306.6	131.6	332.0	150.0	12.00	12.00	0.00
12,450.0	68.39	359.39	12,316.4	154.6	331.8	173.0	12.00	12.00	0.00
12,475.0	71.39	359.39	12,325.0	178.1	331.5	198.4	12.00	12.00	0.00
12,500.0	74.39	359.39	12,332.3	201.9	331.3	220.2	12.00	12.00	0.00
12,525.0	77.39	359.39	12,338.4	226.2	331.0	244.4	12.00	12.00	0.00
12,550.0	80.39	359.39	12,343.3	250.7	330.7	268.9	12.00	12.00	0.00
12,575.0	83.39	359.39	12,346.8	275.5	330.5	293.6	12.00	12.00	0.00
12,600.0	86.39	359.39	12,349.0	300.4	330.2	318.4	12.00	12.00	0.00
12,625.0	89.39	359.39	12,349.9	325.3	329.9	343.3	12.00	12.00	0.00
12,630.1	90.00	359.39	12,350.0	330.4	329.9	348.4	12.00	12.00	0.00
12,700.0	90.00	359.39	12,350.0	400.3	329.1	418.2	0.00	0.00	0.00
12,800.0	90.00	359.39	12,350.0	500.3	328.1	517.9	0.00	0.00	0.00
12,900.0	90.00	359.39	12,350.0	600.3	327.0	617.7	0.00	0.00	0.00
13,000.0	90.00	359.39	12,350.0	700.3	325.9	717.5	0.00	0.00	0.00
13,100.0	90.00	359.39	12,350.0	800.3	324.8	817.3	0.00	0.00	0.00
13,200.0	90.00	359.39	12,350.0	900.3	323.8	917.0	0.00	0.00	0.00

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Cobalt 32 State
 Well: #703H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #703H
 KB = 25 @ 3444.0usft
 KB = 25 @ 3444.0usft
 Grid
 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)
13,300.0	90.00	359.39	12,350.0	1,000.3	322.7	1,016.8	0.00	0.00	0.00
13,400.0	90.00	359.39	12,350.0	1,100.3	321.6	1,116.6	0.00	0.00	0.00
13,500.0	90.00	359.39	12,350.0	1,200.3	320.5	1,216.4	0.00	0.00	0.00
13,600.0	90.00	359.39	12,350.0	1,300.3	319.5	1,316.2	0.00	0.00	0.00
13,700.0	90.00	359.39	12,350.0	1,400.3	318.4	1,415.9	0.00	0.00	0.00
13,800.0	90.00	359.39	12,350.0	1,500.3	317.3	1,515.7	0.00	0.00	0.00
13,900.0	90.00	359.39	12,350.0	1,600.3	316.3	1,615.5	0.00	0.00	0.00
14,000.0	90.00	359.39	12,350.0	1,700.3	315.2	1,715.3	0.00	0.00	0.00
14,100.0	90.00	359.39	12,350.0	1,800.2	314.1	1,815.0	0.00	0.00	0.00
14,200.0	90.00	359.39	12,350.0	1,900.2	313.0	1,914.8	0.00	0.00	0.00
14,300.0	90.00	359.39	12,350.0	2,000.2	312.0	2,014.6	0.00	0.00	0.00
14,400.0	90.00	359.39	12,350.0	2,100.2	310.9	2,114.4	0.00	0.00	0.00
14,500.0	90.00	359.39	12,350.0	2,200.2	309.8	2,214.1	0.00	0.00	0.00
14,600.0	90.00	359.39	12,350.0	2,300.2	308.8	2,313.9	0.00	0.00	0.00
14,700.0	90.00	359.39	12,350.0	2,400.2	307.7	2,413.7	0.00	0.00	0.00
14,800.0	90.00	359.39	12,350.0	2,500.2	306.6	2,513.5	0.00	0.00	0.00
14,900.0	90.00	359.39	12,350.0	2,600.2	305.5	2,613.2	0.00	0.00	0.00
15,000.0	90.00	359.39	12,350.0	2,700.2	304.5	2,713.0	0.00	0.00	0.00
15,100.0	90.00	359.39	12,350.0	2,800.2	303.4	2,812.8	0.00	0.00	0.00
15,200.0	90.00	359.39	12,350.0	2,900.2	302.3	2,912.6	0.00	0.00	0.00
15,300.0	90.00	359.39	12,350.0	3,000.2	301.2	3,012.4	0.00	0.00	0.00
15,400.0	90.00	359.39	12,350.0	3,100.2	300.2	3,112.1	0.00	0.00	0.00
15,500.0	90.00	359.39	12,350.0	3,200.2	299.1	3,211.9	0.00	0.00	0.00
15,600.0	90.00	359.39	12,350.0	3,300.2	298.0	3,311.7	0.00	0.00	0.00
15,700.0	90.00	359.39	12,350.0	3,400.2	297.0	3,411.5	0.00	0.00	0.00
15,800.0	90.00	359.39	12,350.0	3,500.1	295.9	3,511.2	0.00	0.00	0.00
15,900.0	90.00	359.39	12,350.0	3,600.1	294.8	3,611.0	0.00	0.00	0.00
16,000.0	90.00	359.39	12,350.0	3,700.1	293.7	3,710.8	0.00	0.00	0.00
16,100.0	90.00	359.39	12,350.0	3,800.1	292.7	3,810.6	0.00	0.00	0.00
16,200.0	90.00	359.39	12,350.0	3,900.1	291.6	3,910.3	0.00	0.00	0.00
16,300.0	90.00	359.39	12,350.0	4,000.1	290.5	4,010.1	0.00	0.00	0.00
16,400.0	90.00	359.39	12,350.0	4,100.1	289.4	4,109.9	0.00	0.00	0.00
16,500.0	90.00	359.39	12,350.0	4,200.1	288.4	4,209.7	0.00	0.00	0.00
16,600.0	90.00	359.39	12,350.0	4,300.1	287.3	4,309.4	0.00	0.00	0.00
16,700.0	90.00	359.39	12,350.0	4,400.1	286.2	4,409.2	0.00	0.00	0.00
16,800.0	90.00	359.39	12,350.0	4,500.1	285.2	4,509.0	0.00	0.00	0.00
16,900.0	90.00	359.39	12,350.0	4,600.1	284.1	4,608.8	0.00	0.00	0.00
17,000.0	90.00	359.39	12,350.0	4,700.1	283.0	4,708.6	0.00	0.00	0.00
17,100.0	90.00	359.39	12,350.0	4,800.1	281.9	4,808.3	0.00	0.00	0.00
17,200.0	90.00	359.39	12,350.0	4,900.1	280.9	4,908.1	0.00	0.00	0.00
17,280.9	90.00	359.39	12,350.0	4,981.0	280.0	4,988.9	0.00	0.00	0.00

PBHL (Cobalt 32 State #703H)



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #703H
Wellbore: OH
Design: Plan #0.1

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

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 (Cobalt 32 State #7 - plan hits target center - Point	0.00	0.00	11,872.5	-147.0	335.0	425,488.00	802,818.00	32° 10' 0.921 N	103° 29' 17.859 W
PBHL (Cobalt 32 State # - plan hits target center - Point	0.00	0.00	12,350.0	4,981.0	280.0	430,616.00	802,763.00	32° 10' 51.667 N	103° 29' 18.030 W
FTP (Cobalt 32 State #7 - plan misses target center by 163.4usft at 12279.4usft MD (12226.9 TVD, 10.5 N, 333.3 E) - Point	0.00	0.00	12,350.0	-97.0	335.0	425,538.00	802,818.00	32° 10' 1.415 N	103° 29' 17.855 W