

HOBBS OCD

AUG 23 2018

RECEIVED



Lea County, NM (NAD 83 NME)

Cobalt 32 State #708H

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: #708H

KB = 25 @ 3450 Surft 3425.0
 Northing 425816.00 Easting 799712.00 Latitude 32° 10' 2.427 N Longitude 103° 29' 53.980 W

SECTION DETAILS

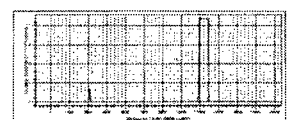
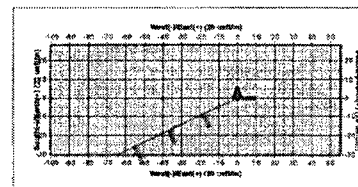
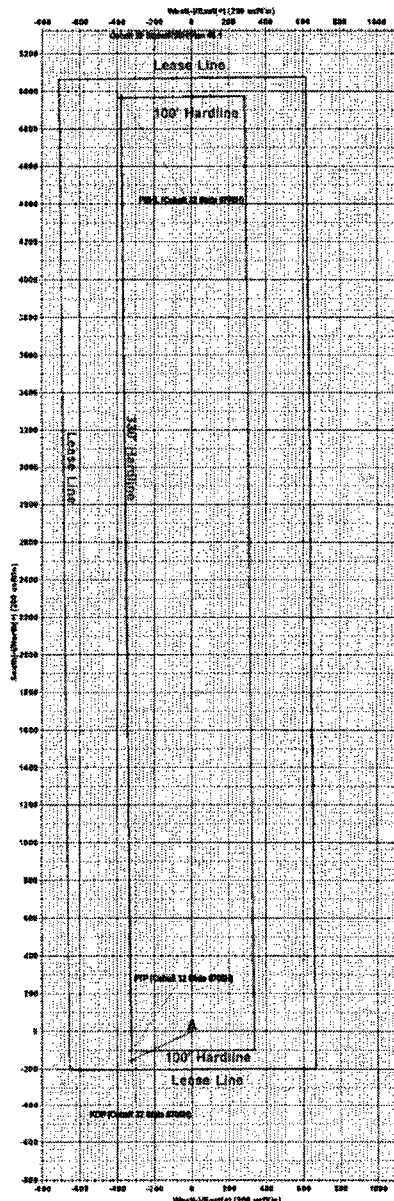
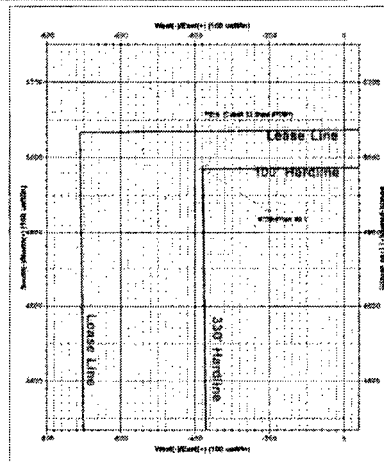
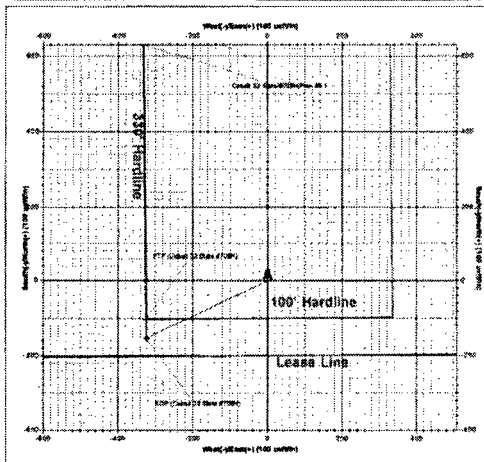
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3115.5	2.33	244.87	3115.5	-1.0	-2.1	2.00	244.87	-0.8	
4	11803.2	2.33	244.87	11796.0	-151.0	-321.9	0.00	0.00	-126.2	
5	11910.7	0.00	0.00	11912.5	-152.0	-324.0	2.00	180.00	-127.0	
6	12669.7	90.00	359.40	12390.0	325.4	-329.0	12.00	359.40	340.5	KOP (Cobalt 32 State #708H)
7	17314.8	90.00	359.40	12390.0	4970.0	-378.0	0.00	0.00	4984.4	PBHL (Cobalt 32 State #708H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Cobalt 32 State #708H)	11812.6	-162.6	-324.0	425844.00	799702.00
FTP (Cobalt 32 State #708H)	12380.0	-102.0	-314.0	425814.00	799708.00
PBHL (Cobalt 32 State #708H)	12390.0	-497.0	-478.0	425809.00	799714.00



WELLBORE TARGET DETAILS (MAP COORDINATES)



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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State

#708H

OH

Plan: Plan #0.1

Standard Planning Report

21 August, 2018

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 #0.1		

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

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

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

Design	Plan #0.1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			355.65

Plan Survey Tool Program	Date	8/21/2018		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks
(usft)	(usft)			
1	0.0	17,314.6 Plan #0.1 (OH)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(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	
3,116.5	2.33	244.87	3,116.5	-1.0	-2.1	2.00	2.00	0.00	244.87	
11,803.2	2.33	244.87	11,796.0	-151.0	-321.9	0.00	0.00	0.00	0.00	
11,919.7	0.00	0.00	11,912.5	-152.0	-324.0	2.00	-2.00	0.00	180.00 KOP (Cobalt 32 State	
12,669.7	90.00	359.40	12,390.0	325.4	-329.0	12.00	12.00	-0.08	359.40	
17,314.6	90.00	359.40	12,390.0	4,970.0	-378.0	0.00	0.00	0.00	0.00 PBHL (Cobalt 32 Stat	



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Cobalt 32 State
 Well: #708H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #708H
 TVD Reference: KB = 25 @ 3450.0usft
 MD Reference: KB = 25 @ 3450.0usft
 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	244.87	3,100.0	-0.7	-1.6	-0.6	2.00	2.00	0.00
3,116.5	2.33	244.87	3,116.5	-1.0	-2.1	-0.8	2.00	2.00	0.00
3,200.0	2.33	244.87	3,199.9	-2.4	-5.2	-2.0	0.00	0.00	0.00
3,300.0	2.33	244.87	3,299.8	-4.2	-8.9	-3.5	0.00	0.00	0.00
3,400.0	2.33	244.87	3,399.7	-5.9	-12.6	-4.9	0.00	0.00	0.00
3,500.0	2.33	244.87	3,499.7	-7.6	-16.3	-6.4	0.00	0.00	0.00
3,600.0	2.33	244.87	3,599.6	-9.4	-19.9	-7.8	0.00	0.00	0.00
3,700.0	2.33	244.87	3,699.5	-11.1	-23.6	-9.3	0.00	0.00	0.00
3,800.0	2.33	244.87	3,799.4	-12.8	-27.3	-10.7	0.00	0.00	0.00
3,900.0	2.33	244.87	3,899.3	-14.5	-31.0	-12.1	0.00	0.00	0.00
4,000.0	2.33	244.87	3,999.2	-16.3	-34.7	-13.6	0.00	0.00	0.00
4,100.0	2.33	244.87	4,099.2	-18.0	-38.3	-15.0	0.00	0.00	0.00
4,200.0	2.33	244.87	4,199.1	-19.7	-42.0	-16.5	0.00	0.00	0.00
4,300.0	2.33	244.87	4,299.0	-21.4	-45.7	-17.9	0.00	0.00	0.00
4,400.0	2.33	244.87	4,398.9	-23.2	-49.4	-19.4	0.00	0.00	0.00
4,500.0	2.33	244.87	4,498.8	-24.9	-53.1	-20.8	0.00	0.00	0.00
4,600.0	2.33	244.87	4,598.7	-26.6	-56.7	-22.2	0.00	0.00	0.00
4,700.0	2.33	244.87	4,698.6	-28.3	-60.4	-23.7	0.00	0.00	0.00
4,800.0	2.33	244.87	4,798.5	-30.1	-64.1	-25.1	0.00	0.00	0.00
4,900.0	2.33	244.87	4,898.4	-31.8	-67.8	-26.6	0.00	0.00	0.00
5,000.0	2.33	244.87	4,998.3	-33.5	-71.5	-28.0	0.00	0.00	0.00
5,100.0	2.33	244.87	5,098.2	-35.3	-75.1	-29.5	0.00	0.00	0.00
5,200.0	2.33	244.87	5,198.1	-37.0	-78.8	-30.9	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: #708H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #708H
TVD Reference: KB = 25 @ 3450.0usft
MD Reference: KB = 25 @ 3450.0usft
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	2.33	244.87	5,298.2	-38.7	-82.5	-32.3	0.00	0.00	0.00
5,400.0	2.33	244.87	5,398.1	-40.4	-86.2	-33.8	0.00	0.00	0.00
5,500.0	2.33	244.87	5,498.0	-42.2	-89.9	-35.2	0.00	0.00	0.00
5,600.0	2.33	244.87	5,597.9	-43.9	-93.5	-36.7	0.00	0.00	0.00
5,700.0	2.33	244.87	5,697.8	-45.6	-97.2	-38.1	0.00	0.00	0.00
5,800.0	2.33	244.87	5,797.7	-47.3	-100.9	-39.6	0.00	0.00	0.00
5,900.0	2.33	244.87	5,897.7	-49.1	-104.6	-41.0	0.00	0.00	0.00
6,000.0	2.33	244.87	5,997.6	-50.8	-108.3	-42.4	0.00	0.00	0.00
6,100.0	2.33	244.87	6,097.5	-52.5	-112.0	-43.9	0.00	0.00	0.00
6,200.0	2.33	244.87	6,197.4	-54.2	-115.6	-45.3	0.00	0.00	0.00
6,300.0	2.33	244.87	6,297.3	-56.0	-119.3	-46.8	0.00	0.00	0.00
6,400.0	2.33	244.87	6,397.3	-57.7	-123.0	-48.2	0.00	0.00	0.00
6,500.0	2.33	244.87	6,497.2	-59.4	-126.7	-49.6	0.00	0.00	0.00
6,600.0	2.33	244.87	6,597.1	-61.2	-130.4	-51.1	0.00	0.00	0.00
6,700.0	2.33	244.87	6,697.0	-62.9	-134.0	-52.5	0.00	0.00	0.00
6,800.0	2.33	244.87	6,796.9	-64.6	-137.7	-54.0	0.00	0.00	0.00
6,900.0	2.33	244.87	6,896.8	-66.3	-141.4	-55.4	0.00	0.00	0.00
7,000.0	2.33	244.87	6,996.8	-68.1	-145.1	-56.9	0.00	0.00	0.00
7,100.0	2.33	244.87	7,096.7	-69.8	-148.8	-58.3	0.00	0.00	0.00
7,200.0	2.33	244.87	7,196.6	-71.5	-152.4	-59.7	0.00	0.00	0.00
7,300.0	2.33	244.87	7,296.5	-73.2	-156.1	-61.2	0.00	0.00	0.00
7,400.0	2.33	244.87	7,396.4	-75.0	-159.8	-62.6	0.00	0.00	0.00
7,500.0	2.33	244.87	7,496.3	-76.7	-163.5	-64.1	0.00	0.00	0.00
7,600.0	2.33	244.87	7,596.3	-78.4	-167.2	-65.5	0.00	0.00	0.00
7,700.0	2.33	244.87	7,696.2	-80.1	-170.8	-67.0	0.00	0.00	0.00
7,800.0	2.33	244.87	7,796.1	-81.9	-174.5	-68.4	0.00	0.00	0.00
7,900.0	2.33	244.87	7,896.0	-83.6	-178.2	-69.8	0.00	0.00	0.00
8,000.0	2.33	244.87	7,995.9	-85.3	-181.9	-71.3	0.00	0.00	0.00
8,100.0	2.33	244.87	8,095.8	-87.1	-185.6	-72.7	0.00	0.00	0.00
8,200.0	2.33	244.87	8,195.8	-88.8	-189.2	-74.2	0.00	0.00	0.00
8,300.0	2.33	244.87	8,295.7	-90.5	-192.9	-75.6	0.00	0.00	0.00
8,400.0	2.33	244.87	8,395.6	-92.2	-196.6	-77.1	0.00	0.00	0.00
8,500.0	2.33	244.87	8,495.5	-94.0	-200.3	-78.5	0.00	0.00	0.00
8,600.0	2.33	244.87	8,595.4	-95.7	-204.0	-79.9	0.00	0.00	0.00
8,700.0	2.33	244.87	8,695.4	-97.4	-207.6	-81.4	0.00	0.00	0.00
8,800.0	2.33	244.87	8,795.3	-99.1	-211.3	-82.8	0.00	0.00	0.00
8,900.0	2.33	244.87	8,895.2	-100.9	-215.0	-84.3	0.00	0.00	0.00
9,000.0	2.33	244.87	8,995.1	-102.6	-218.7	-85.7	0.00	0.00	0.00
9,100.0	2.33	244.87	9,095.0	-104.3	-222.4	-87.2	0.00	0.00	0.00
9,200.0	2.33	244.87	9,194.9	-106.0	-226.0	-88.6	0.00	0.00	0.00
9,300.0	2.33	244.87	9,294.9	-107.8	-229.7	-90.0	0.00	0.00	0.00
9,400.0	2.33	244.87	9,394.8	-109.5	-233.4	-91.5	0.00	0.00	0.00
9,500.0	2.33	244.87	9,494.7	-111.2	-237.1	-92.9	0.00	0.00	0.00
9,600.0	2.33	244.87	9,594.6	-113.0	-240.8	-94.4	0.00	0.00	0.00
9,700.0	2.33	244.87	9,694.5	-114.7	-244.4	-95.8	0.00	0.00	0.00
9,800.0	2.33	244.87	9,794.4	-116.4	-248.1	-97.3	0.00	0.00	0.00
9,900.0	2.33	244.87	9,894.4	-118.1	-251.8	-98.7	0.00	0.00	0.00
10,000.0	2.33	244.87	9,994.3	-119.9	-255.5	-100.1	0.00	0.00	0.00
10,100.0	2.33	244.87	10,094.2	-121.6	-259.2	-101.6	0.00	0.00	0.00
10,200.0	2.33	244.87	10,194.1	-123.3	-262.8	-103.0	0.00	0.00	0.00
10,300.0	2.33	244.87	10,294.0	-125.0	-266.5	-104.5	0.00	0.00	0.00
10,400.0	2.33	244.87	10,393.9	-126.8	-270.2	-105.9	0.00	0.00	0.00
10,500.0	2.33	244.87	10,493.9	-128.5	-273.9	-107.4	0.00	0.00	0.00
10,600.0	2.33	244.87	10,593.8	-130.2	-277.6	-108.8	0.00	0.00	0.00

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Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #708H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #708H
TVD Reference: KB = 25 @ 3450.0usft
MD Reference: KB = 25 @ 3450.0usft
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	2.33	244.87	10,693.7	-131.9	-281.3	-110.2	0.00	0.00	0.00
10,800.0	2.33	244.87	10,793.6	-133.7	-284.9	-111.7	0.00	0.00	0.00
10,900.0	2.33	244.87	10,893.5	-135.4	-288.6	-113.1	0.00	0.00	0.00
11,000.0	2.33	244.87	10,993.5	-137.1	-292.3	-114.6	0.00	0.00	0.00
11,100.0	2.33	244.87	11,093.4	-138.9	-296.0	-116.0	0.00	0.00	0.00
11,200.0	2.33	244.87	11,193.3	-140.6	-299.7	-117.4	0.00	0.00	0.00
11,300.0	2.33	244.87	11,293.2	-142.3	-303.3	-118.9	0.00	0.00	0.00
11,400.0	2.33	244.87	11,393.1	-144.0	-307.0	-120.3	0.00	0.00	0.00
11,500.0	2.33	244.87	11,493.0	-145.8	-310.7	-121.8	0.00	0.00	0.00
11,600.0	2.33	244.87	11,593.0	-147.5	-314.4	-123.2	0.00	0.00	0.00
11,700.0	2.33	244.87	11,692.9	-149.2	-318.1	-124.7	0.00	0.00	0.00
11,803.2	2.33	244.87	11,796.0	-151.0	-321.9	-126.2	0.00	0.00	0.00
11,900.0	0.39	244.87	11,892.8	-152.0	-323.9	-127.0	2.00	-2.00	0.00
11,919.7	0.00	0.00	11,912.5	-152.0	-324.0	-127.0	2.00	-2.00	0.00
KOP (Cobalt 32 State #708H)									
11,925.0	0.63	359.40	11,917.8	-152.0	-324.0	-127.0	12.00	12.00	0.00
11,950.0	3.63	359.40	11,942.7	-151.0	-324.0	-126.0	12.00	12.00	0.00
11,975.0	6.63	359.40	11,967.6	-148.8	-324.0	-123.8	12.00	12.00	0.00
12,000.0	9.63	359.40	11,992.4	-145.3	-324.1	-120.3	12.00	12.00	0.00
12,025.0	12.63	359.40	12,016.9	-140.4	-324.1	-115.5	12.00	12.00	0.00
12,050.0	15.63	359.40	12,041.1	-134.3	-324.2	-109.4	12.00	12.00	0.00
12,075.0	18.63	359.40	12,065.0	-127.0	-324.3	-102.0	12.00	12.00	0.00
12,100.0	21.63	359.40	12,088.5	-118.4	-324.4	-93.4	12.00	12.00	0.00
12,125.0	24.63	359.40	12,111.5	-108.6	-324.5	-83.6	12.00	12.00	0.00
12,150.0	27.63	359.40	12,133.9	-97.6	-324.6	-72.7	12.00	12.00	0.00
12,175.0	30.63	359.40	12,155.8	-85.4	-324.7	-60.5	12.00	12.00	0.00
12,200.0	33.63	359.40	12,176.9	-72.1	-324.8	-47.2	12.00	12.00	0.00
12,225.0	36.63	359.40	12,197.4	-57.7	-325.0	-32.9	12.00	12.00	0.00
12,250.0	39.63	359.40	12,217.0	-42.3	-325.2	-17.5	12.00	12.00	0.00
12,275.0	42.63	359.40	12,235.9	-25.8	-325.3	-1.1	12.00	12.00	0.00
12,300.0	45.63	359.40	12,253.8	-8.4	-325.5	16.3	12.00	12.00	0.00
12,324.1	48.52	359.40	12,270.2	9.2	-325.7	33.9	12.00	12.00	0.00
FTP (Cobalt 32 State #708H)									
12,325.0	48.63	359.40	12,270.8	9.9	-325.7	34.6	12.00	12.00	0.00
12,350.0	51.63	359.40	12,286.8	29.1	-325.9	53.7	12.00	12.00	0.00
12,375.0	54.63	359.40	12,301.8	49.1	-326.1	73.7	12.00	12.00	0.00
12,400.0	57.63	359.40	12,315.8	69.8	-326.3	94.4	12.00	12.00	0.00
12,425.0	60.63	359.40	12,328.6	91.3	-326.6	115.8	12.00	12.00	0.00
12,450.0	63.63	359.40	12,340.3	113.4	-326.8	137.8	12.00	12.00	0.00
12,475.0	66.63	359.40	12,350.8	136.1	-327.0	160.5	12.00	12.00	0.00
12,500.0	69.63	359.40	12,360.1	159.3	-327.3	183.6	12.00	12.00	0.00
12,525.0	72.63	359.40	12,368.2	182.9	-327.5	207.2	12.00	12.00	0.00
12,550.0	75.63	359.40	12,375.0	207.0	-327.8	231.2	12.00	12.00	0.00
12,575.0	78.63	359.40	12,380.6	231.3	-328.0	255.5	12.00	12.00	0.00
12,600.0	81.63	359.40	12,384.9	255.9	-328.3	280.1	12.00	12.00	0.00
12,625.0	84.63	359.40	12,387.9	280.8	-328.6	304.9	12.00	12.00	0.00
12,650.0	87.63	359.40	12,389.6	305.7	-328.8	329.8	12.00	12.00	0.00
12,669.7	90.00	359.40	12,390.0	325.4	-329.0	349.5	12.00	12.00	0.00
12,700.0	90.00	359.40	12,390.0	355.7	-329.4	379.6	0.00	0.00	0.00
12,800.0	90.00	359.40	12,390.0	455.7	-330.4	479.4	0.00	0.00	0.00
12,900.0	90.00	359.40	12,390.0	555.7	-331.5	579.2	0.00	0.00	0.00
13,000.0	90.00	359.40	12,390.0	655.7	-332.5	679.0	0.00	0.00	0.00
13,100.0	90.00	359.40	12,390.0	755.7	-333.6	778.8	0.00	0.00	0.00
13,200.0	90.00	359.40	12,390.0	855.7	-334.6	878.6	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: #708H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #708H
TVD Reference: KB = 25 @ 3450.0usft
MD Reference: KB = 25 @ 3450.0usft
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)
13,300.0	90.00	359.40	12,390.0	955.7	-335.7	978.4	0.00	0.00	0.00
13,400.0	90.00	359.40	12,390.0	1,055.7	-336.7	1,078.1	0.00	0.00	0.00
13,500.0	90.00	359.40	12,390.0	1,155.6	-337.8	1,177.9	0.00	0.00	0.00
13,600.0	90.00	359.40	12,390.0	1,255.6	-338.8	1,277.7	0.00	0.00	0.00
13,700.0	90.00	359.40	12,390.0	1,355.6	-339.9	1,377.5	0.00	0.00	0.00
13,800.0	90.00	359.40	12,390.0	1,455.6	-340.9	1,477.3	0.00	0.00	0.00
13,900.0	90.00	359.40	12,390.0	1,555.6	-342.0	1,577.1	0.00	0.00	0.00
14,000.0	90.00	359.40	12,390.0	1,655.6	-343.1	1,676.9	0.00	0.00	0.00
14,100.0	90.00	359.40	12,390.0	1,755.6	-344.1	1,776.7	0.00	0.00	0.00
14,200.0	90.00	359.40	12,390.0	1,855.6	-345.2	1,876.4	0.00	0.00	0.00
14,300.0	90.00	359.40	12,390.0	1,955.6	-346.2	1,976.2	0.00	0.00	0.00
14,400.0	90.00	359.40	12,390.0	2,055.6	-347.3	2,076.0	0.00	0.00	0.00
14,500.0	90.00	359.40	12,390.0	2,155.6	-348.3	2,175.8	0.00	0.00	0.00
14,600.0	90.00	359.40	12,390.0	2,255.6	-349.4	2,275.6	0.00	0.00	0.00
14,700.0	90.00	359.40	12,390.0	2,355.6	-350.4	2,375.4	0.00	0.00	0.00
14,800.0	90.00	359.40	12,390.0	2,455.6	-351.5	2,475.2	0.00	0.00	0.00
14,900.0	90.00	359.40	12,390.0	2,555.6	-352.5	2,574.9	0.00	0.00	0.00
15,000.0	90.00	359.40	12,390.0	2,655.6	-353.6	2,674.7	0.00	0.00	0.00
15,100.0	90.00	359.40	12,390.0	2,755.6	-354.7	2,774.5	0.00	0.00	0.00
15,200.0	90.00	359.40	12,390.0	2,855.6	-355.7	2,874.3	0.00	0.00	0.00
15,300.0	90.00	359.40	12,390.0	2,955.5	-356.8	2,974.1	0.00	0.00	0.00
15,400.0	90.00	359.40	12,390.0	3,055.5	-357.8	3,073.9	0.00	0.00	0.00
15,500.0	90.00	359.40	12,390.0	3,155.5	-358.9	3,173.7	0.00	0.00	0.00
15,600.0	90.00	359.40	12,390.0	3,255.5	-359.9	3,273.5	0.00	0.00	0.00
15,700.0	90.00	359.40	12,390.0	3,355.5	-361.0	3,373.2	0.00	0.00	0.00
15,800.0	90.00	359.40	12,390.0	3,455.5	-362.0	3,473.0	0.00	0.00	0.00
15,900.0	90.00	359.40	12,390.0	3,555.5	-363.1	3,572.8	0.00	0.00	0.00
16,000.0	90.00	359.40	12,390.0	3,655.5	-364.1	3,672.6	0.00	0.00	0.00
16,100.0	90.00	359.40	12,390.0	3,755.5	-365.2	3,772.4	0.00	0.00	0.00
16,200.0	90.00	359.40	12,390.0	3,855.5	-366.3	3,872.2	0.00	0.00	0.00
16,300.0	90.00	359.40	12,390.0	3,955.5	-367.3	3,972.0	0.00	0.00	0.00
16,400.0	90.00	359.40	12,390.0	4,055.5	-368.4	4,071.7	0.00	0.00	0.00
16,500.0	90.00	359.40	12,390.0	4,155.5	-369.4	4,171.5	0.00	0.00	0.00
16,600.0	90.00	359.40	12,390.0	4,255.5	-370.5	4,271.3	0.00	0.00	0.00
16,700.0	90.00	359.40	12,390.0	4,355.5	-371.5	4,371.1	0.00	0.00	0.00
16,800.0	90.00	359.40	12,390.0	4,455.5	-372.6	4,470.9	0.00	0.00	0.00
16,900.0	90.00	359.40	12,390.0	4,555.5	-373.6	4,570.7	0.00	0.00	0.00
17,000.0	90.00	359.40	12,390.0	4,655.5	-374.7	4,670.5	0.00	0.00	0.00
17,100.0	90.00	359.40	12,390.0	4,755.4	-375.7	4,770.2	0.00	0.00	0.00
17,200.0	90.00	359.40	12,390.0	4,855.4	-376.8	4,870.0	0.00	0.00	0.00
17,300.0	90.00	359.40	12,390.0	4,955.4	-377.8	4,969.8	0.00	0.00	0.00
17,314.6	90.00	359.40	12,390.0	4,970.0	-378.0	4,984.4	0.00	0.00	0.00

PBHL (Cobalt 32 State #708H)

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #708H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #708H
TVD Reference: KB = 25 @ 3450.0usft
MD Reference: KB = 25 @ 3450.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	-152.0	-324.0	425,464.00	799,388.00	32° 10' 0.948 N	103° 29' 57.763 W
FTP (Cobalt 32 State #7 - plan misses target center by 163.5usft at 12324.1usft MD (12270.2 TVD, 9.2 N, -325.7 E) - Point	0.00	0.01	12,390.0	-102.0	-324.0	425,514.00	799,388.00	32° 10' 1.443 N	103° 29' 57.759 W
PBHL (Cobalt 32 State # - plan hits target center - Point	0.00	0.00	12,390.0	4,970.0	-378.0	430,586.00	799,334.00	32° 10' 51.635 N	103° 29' 57.930 W