

Revised Permit Information 3/2/18:

Well Name: Caballo 23 Fed Com No. 703H

Location:

SL: 300' FSL & 1755' FWL, Section 23, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2411' FSL & 989' FWL, Section 14, T-25-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1,150'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' - 4,900'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 - 11,300'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0 - 10,800'	5.5"	20#	P110EC	DWC CIS MS	1.125	1.25	1.60
6.75"	0'-19,875'	5.5"	20#	P110EC	VAM SFC	1.125	1.25	1.60

Variance is requested for annular clearance of the 5-1/2" x 7-5/8" to the top of cement.

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Slurry Description
1,150'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl ₂ (TOC @ Surface)
	333	14.8	1.35	Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate + 2.0% KCl (1.06 lb/sk)
4,900'	692	12.7	2.22	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	303	14.8	1.32	Tail: Class C + 0.13% C-20
11,300'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,400')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
19,875'	1000	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800')

Mud Program:

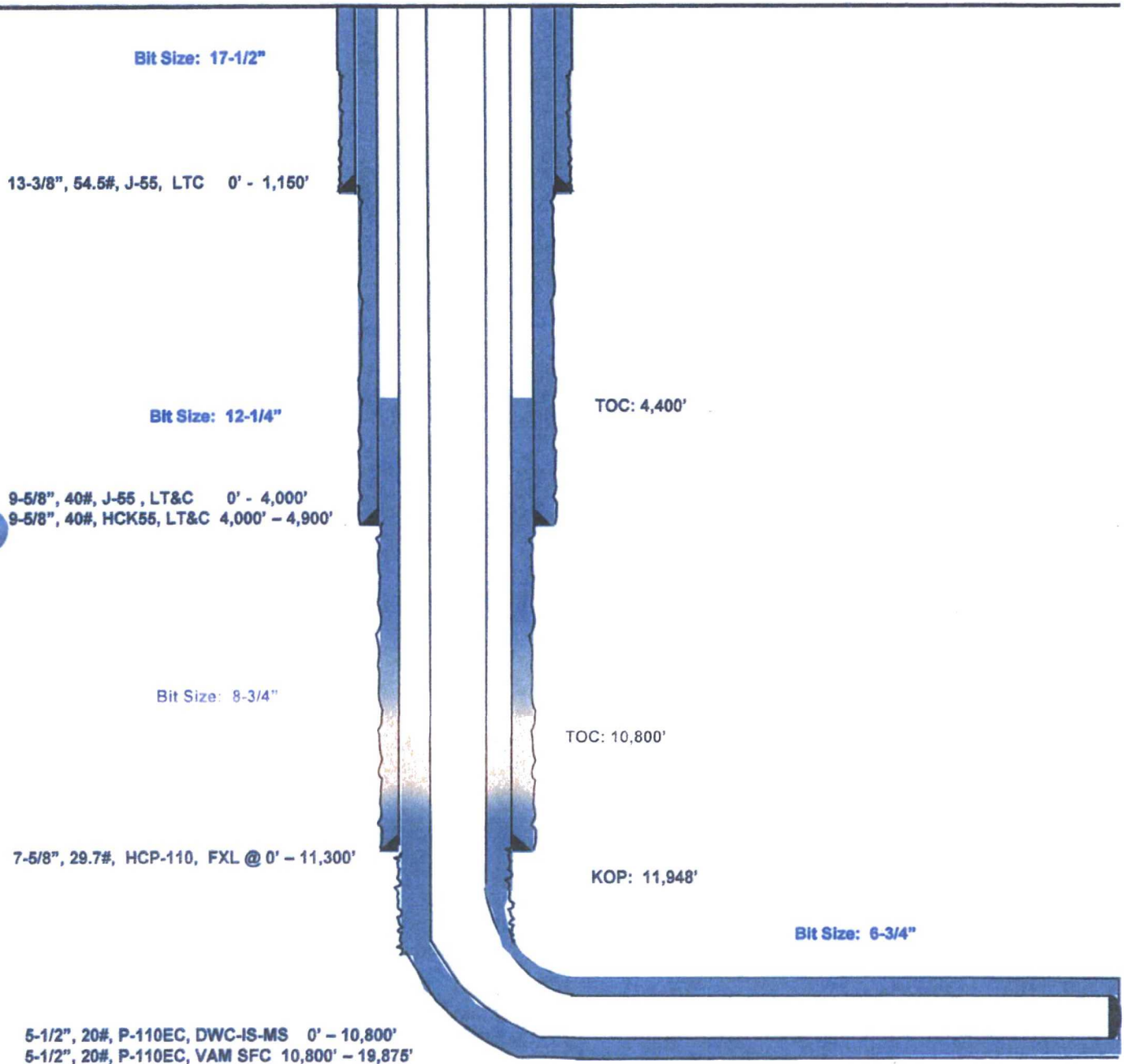
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' - 4,900'	Brine	10.0-10.2	28-34	N/c
4,900' - 11,300'	Oil Base	8.7-9.4	58-68	N/c - 6
11,300' - 19,875' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Caballo 23 Fed Com #703H
Lea County, New Mexico

300' FSL
1755' FWL
Section 23
T-25-S, R-33-E

Proposed Wellbore
Revised 3/2/18
API: 30-025-43877

KB: 3,367'
GL: 3,342'



Lateral: 19,875' MD, 12,402' TVD
Upper Most Perf:
330' FSL & 990' FWL Sec. 23
Lower Most Perf:
2311' FSL & 989' FWL Sec. 14
BH Location: 2411' FSL & 989' FWL
Section 14
T-25-S, R-33-E

Lea County, NM (NAD 83 NME)
 Caballo 23 Fed Com #703H
 Plan #0.2

PROJECT DETAILS: Lea County, NM (NAD 83 NME)
 Geographic System: US State Plane 1983
 Datum: North American Datum 1983
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

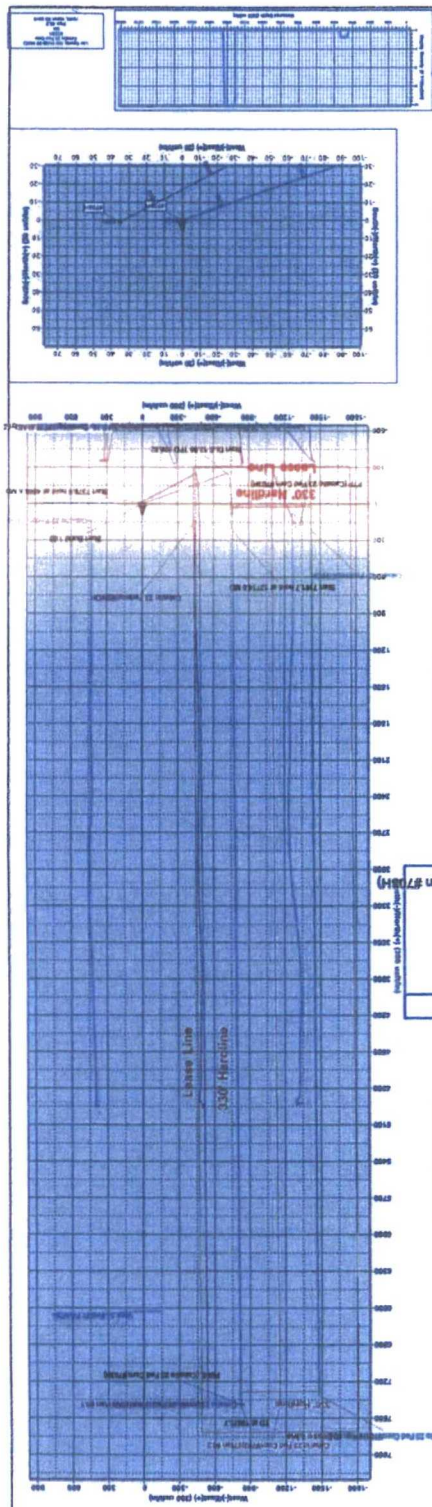
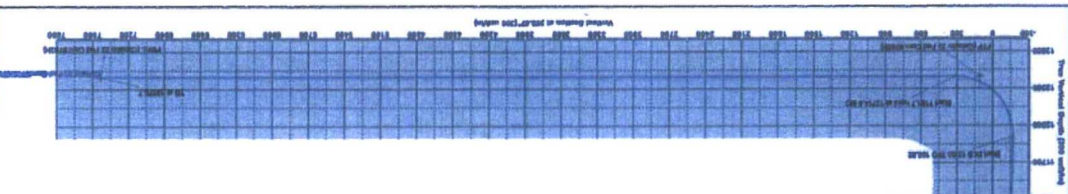
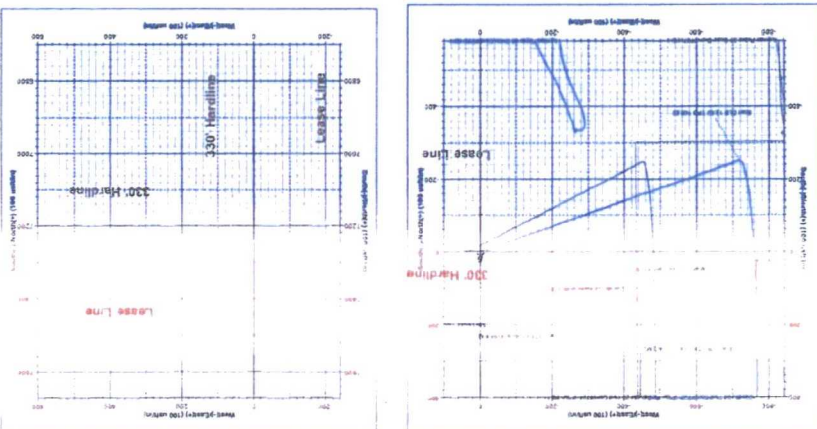
WELL DETAILS: #703H
 Ground Level: 3542.0
 Easting: 78917.09
 Northing: 40499.00
 Latitude: 32° 5' 34.00 N
 Longitude: 105° 32' 42.90 W

Adapted to Grid North
 True North: 4.47°
 Magnetic North: 6.55°
 Magnetic Field
 Strength: 4700.500
 Dip Angle: 66.87°
 Date: 2/13/2017
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.55°
 To convert a True Direction to a Grid Direction, Subtract 0.47°

Sec	MD	Inch	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSecl	Target
1	4000.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	
2	4568.6	5.69	250.67	4567.6	-9.3	-26.6	1.00	250.67	-6.3	
3	11948.6	5.69	250.67	11911.4	-251.4	-716.8	0.00	108.62	-170.9	
4	12714.0	90.00	359.56	12402.0	225.5	-768.5	12.00	108.62	308.6	
5	19875.7	90.00	359.56	12402.0	7387.0	-819.0	0.00	0.00	7432.3	

CASING DETAILS		WELLCORE VARIABLE DETAILS (WAP CO-COORDINATES)	
No casing data is available		170	19402.8
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09
		19402.8	78917.09





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed Com

#703H

OH

Plan: Plan #0.2

Standard Planning Report

06 March, 2018

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed Com
 Well: #703H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25' @ 3367.0usft
 MD Reference: KB = 25' @ 3367.0usft
 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: Caballo 23 Fed Com

Site Position: Northing: 404,685.00 usft Latitude: 32° 6' 36.494 N
 From: Map Easting: 783,786.00 usft Longitude: 103° 33' 1.024 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.42 °

Well: #703H

Well Position: +N/-S -186.0 usft Northing: 404,499.00 usft Latitude: 32° 6' 34.558 N
 +E/-W 1,331.0 usft Easting: 785,117.00 usft Longitude: 103° 32' 45.566 W
 Position Uncertainty: 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 3,342.0 usft

Wellbore: OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/13/2017	6.97	59.97	47,908.29612734

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 0.0 353.67

Plan Survey Tool Program Date: 3/5/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,875.7 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	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,568.8	5.69	250.67	4,567.8	-9.3	-26.6	1.00	1.00	0.00	250.67	
11,948.6	5.69	250.67	11,911.4	-251.4	-716.8	0.00	0.00	0.00	0.00	
12,714.0	90.00	359.58	12,402.0	225.5	-766.5	12.00	11.02	14.23	108.82	
19,875.7	90.00	359.58	12,402.0	7,387.0	-819.0	0.00	0.00	0.00	0.00	PBHL (Caballo 23 Fed

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed Com
 Well: #703H
 Wellbore: OH
 Design: Plan #0.2

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

Well #703H
 KB = 25' @ 3367.0usft
 KB = 25' @ 3367.0usft
 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)
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	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	1.00	250.67	4,100.0	-0.3	-0.8	-0.2	1.00	1.00	0.00
4,200.0	2.00	250.67	4,200.0	-1.2	-3.3	-0.8	1.00	1.00	0.00
4,300.0	3.00	250.67	4,299.9	-2.6	-7.4	-1.6	1.00	1.00	0.00
4,400.0	4.00	250.67	4,399.7	-4.6	-13.2	-3.1	1.00	1.00	0.00
4,500.0	5.00	250.67	4,499.4	-7.2	-20.6	-4.9	1.00	1.00	0.00
4,568.8	5.69	250.67	4,567.8	-9.3	-26.6	-6.3	1.00	1.00	0.00
4,600.0	5.69	250.67	4,598.9	-10.4	-29.5	-7.0	0.00	0.00	0.00
4,700.0	5.69	250.67	4,698.4	-13.6	-38.9	-9.3	0.00	0.00	0.00
4,800.0	5.69	250.67	4,797.9	-16.9	-48.2	-11.5	0.00	0.00	0.00
4,900.0	5.69	250.67	4,897.4	-20.2	-57.6	-13.7	0.00	0.00	0.00
5,000.0	5.69	250.67	4,996.9	-23.5	-66.9	-16.0	0.00	0.00	0.00
5,100.0	5.69	250.67	5,096.5	-26.8	-76.3	-18.2	0.00	0.00	0.00
5,200.0	5.69	250.67	5,196.0	-30.0	-85.7	-20.4	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3367.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3367.0usft
Site:	Caballo 23 Fed 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	5.69	250.67	5,295.5	-33.3	-95.0	-22.6	0.00	0.00	0.00
5,400.0	5.69	250.67	5,395.0	-36.6	-104.4	-24.9	0.00	0.00	0.00
5,500.0	5.69	250.67	5,494.5	-39.9	-113.7	-27.1	0.00	0.00	0.00
5,600.0	5.69	250.67	5,594.0	-43.2	-123.1	-29.3	0.00	0.00	0.00
5,700.0	5.69	250.67	5,693.5	-46.4	-132.4	-31.6	0.00	0.00	0.00
5,800.0	5.69	250.67	5,793.0	-49.7	-141.8	-33.8	0.00	0.00	0.00
5,900.0	5.69	250.67	5,892.5	-53.0	-151.1	-36.0	0.00	0.00	0.00
6,000.0	5.69	250.67	5,992.0	-56.3	-160.5	-38.3	0.00	0.00	0.00
6,100.0	5.69	250.67	6,091.5	-59.6	-169.8	-40.5	0.00	0.00	0.00
6,200.0	5.69	250.67	6,191.0	-62.8	-179.2	-42.7	0.00	0.00	0.00
6,300.0	5.69	250.67	6,290.5	-66.1	-188.5	-44.9	0.00	0.00	0.00
6,400.0	5.69	250.67	6,390.1	-69.4	-197.9	-47.2	0.00	0.00	0.00
6,500.0	5.69	250.67	6,489.6	-72.7	-207.2	-49.4	0.00	0.00	0.00
6,600.0	5.69	250.67	6,589.1	-76.0	-216.6	-51.6	0.00	0.00	0.00
6,700.0	5.69	250.67	6,688.6	-79.2	-225.9	-53.9	0.00	0.00	0.00
6,800.0	5.69	250.67	6,788.1	-82.5	-235.3	-56.1	0.00	0.00	0.00
6,900.0	5.69	250.67	6,887.6	-85.8	-244.6	-58.3	0.00	0.00	0.00
7,000.0	5.69	250.67	6,987.1	-89.1	-254.0	-60.5	0.00	0.00	0.00
7,100.0	5.69	250.67	7,086.6	-92.4	-263.3	-62.8	0.00	0.00	0.00
7,200.0	5.69	250.67	7,186.1	-95.6	-272.7	-65.0	0.00	0.00	0.00
7,300.0	5.69	250.67	7,285.6	-98.9	-282.0	-67.2	0.00	0.00	0.00
7,400.0	5.69	250.67	7,385.1	-102.2	-291.4	-69.5	0.00	0.00	0.00
7,500.0	5.69	250.67	7,484.6	-105.5	-300.7	-71.7	0.00	0.00	0.00
7,600.0	5.69	250.67	7,584.1	-108.8	-310.1	-73.9	0.00	0.00	0.00
7,700.0	5.69	250.67	7,683.7	-112.0	-319.4	-76.1	0.00	0.00	0.00
7,800.0	5.69	250.67	7,783.2	-115.3	-328.8	-78.4	0.00	0.00	0.00
7,900.0	5.69	250.67	7,882.7	-118.6	-338.2	-80.6	0.00	0.00	0.00
8,000.0	5.69	250.67	7,982.2	-121.9	-347.5	-82.8	0.00	0.00	0.00
8,100.0	5.69	250.67	8,081.7	-125.1	-356.9	-85.1	0.00	0.00	0.00
8,200.0	5.69	250.67	8,181.2	-128.4	-366.2	-87.3	0.00	0.00	0.00
8,300.0	5.69	250.67	8,280.7	-131.7	-375.6	-89.5	0.00	0.00	0.00
8,400.0	5.69	250.67	8,380.2	-135.0	-384.9	-91.8	0.00	0.00	0.00
8,500.0	5.69	250.67	8,479.7	-138.3	-394.3	-94.0	0.00	0.00	0.00
8,600.0	5.69	250.67	8,579.2	-141.5	-403.6	-96.2	0.00	0.00	0.00
8,700.0	5.69	250.67	8,678.7	-144.8	-413.0	-98.4	0.00	0.00	0.00
8,800.0	5.69	250.67	8,778.2	-148.1	-422.3	-100.7	0.00	0.00	0.00
8,900.0	5.69	250.67	8,877.7	-151.4	-431.7	-102.9	0.00	0.00	0.00
9,000.0	5.69	250.67	8,977.3	-154.7	-441.0	-105.1	0.00	0.00	0.00
9,100.0	5.69	250.67	9,076.8	-157.9	-450.4	-107.4	0.00	0.00	0.00
9,200.0	5.69	250.67	9,176.3	-161.2	-459.7	-109.6	0.00	0.00	0.00
9,300.0	5.69	250.67	9,275.8	-164.5	-469.1	-111.8	0.00	0.00	0.00
9,400.0	5.69	250.67	9,375.3	-167.8	-478.4	-114.0	0.00	0.00	0.00
9,500.0	5.69	250.67	9,474.8	-171.1	-487.8	-116.3	0.00	0.00	0.00
9,600.0	5.69	250.67	9,574.3	-174.3	-497.1	-118.5	0.00	0.00	0.00
9,700.0	5.69	250.67	9,673.8	-177.6	-506.5	-120.7	0.00	0.00	0.00
9,800.0	5.69	250.67	9,773.3	-180.9	-515.8	-123.0	0.00	0.00	0.00
9,900.0	5.69	250.67	9,872.8	-184.2	-525.2	-125.2	0.00	0.00	0.00
10,000.0	5.69	250.67	9,972.3	-187.5	-534.5	-127.4	0.00	0.00	0.00
10,100.0	5.69	250.67	10,071.8	-190.7	-543.9	-129.6	0.00	0.00	0.00
10,200.0	5.69	250.67	10,171.3	-194.0	-553.2	-131.9	0.00	0.00	0.00
10,300.0	5.69	250.67	10,270.9	-197.3	-562.6	-134.1	0.00	0.00	0.00
10,400.0	5.69	250.67	10,370.4	-200.6	-572.0	-136.3	0.00	0.00	0.00
10,500.0	5.69	250.67	10,469.9	-203.9	-581.3	-138.6	0.00	0.00	0.00
10,600.0	5.69	250.67	10,569.4	-207.1	-590.7	-140.8	0.00	0.00	0.00

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Caballo 23 Fed Com
Well: #703H
Wellbore: OH
Design: Plan #0.2

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

Well #703H
KB = 25' @ 3367.0usft
KB = 25' @ 3367.0usft
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)
10,700.0	5.69	250.67	10,668.9	-210.4	-600.0	-143.0	0.00	0.00	0.00
10,800.0	5.69	250.67	10,768.4	-213.7	-609.4	-145.3	0.00	0.00	0.00
10,900.0	5.69	250.67	10,867.9	-217.0	-618.7	-147.5	0.00	0.00	0.00
11,000.0	5.69	250.67	10,967.4	-220.3	-628.1	-149.7	0.00	0.00	0.00
11,100.0	5.69	250.67	11,066.9	-223.5	-637.4	-151.9	0.00	0.00	0.00
11,200.0	5.69	250.67	11,166.4	-226.8	-646.8	-154.2	0.00	0.00	0.00
11,300.0	5.69	250.67	11,265.9	-230.1	-656.1	-156.4	0.00	0.00	0.00
11,400.0	5.69	250.67	11,365.4	-233.4	-665.5	-158.6	0.00	0.00	0.00
11,500.0	5.69	250.67	11,464.9	-236.7	-674.8	-160.9	0.00	0.00	0.00
11,600.0	5.69	250.67	11,564.5	-239.9	-684.2	-163.1	0.00	0.00	0.00
11,700.0	5.69	250.67	11,664.0	-243.2	-693.5	-165.3	0.00	0.00	0.00
11,800.0	5.69	250.67	11,763.5	-246.5	-702.9	-167.5	0.00	0.00	0.00
11,900.0	5.69	250.67	11,863.0	-249.8	-712.2	-169.8	0.00	0.00	0.00
11,948.6	5.69	250.67	11,911.4	-251.4	-716.8	-170.9	0.00	0.00	0.00
11,950.0	5.64	252.25	11,912.7	-251.4	-716.9	-170.9	12.00	-3.72	115.65
11,975.0	5.54	283.41	11,937.6	-251.5	-719.2	-170.7	12.00	-0.38	124.66
12,000.0	6.90	308.44	11,962.5	-250.3	-721.6	-169.3	12.00	5.43	100.13
12,025.0	9.08	323.45	11,987.2	-247.8	-724.0	-166.5	12.00	8.72	60.03
12,050.0	11.63	332.33	12,011.8	-244.0	-726.3	-162.4	12.00	10.20	35.51
12,075.0	14.35	337.97	12,036.2	-238.9	-728.6	-157.1	12.00	10.89	22.56
12,100.0	17.16	341.82	12,060.2	-232.5	-730.9	-150.5	12.00	11.25	15.39
12,125.0	20.03	344.60	12,083.9	-224.8	-733.2	-142.7	12.00	11.47	11.13
12,150.0	22.93	346.71	12,107.2	-216.0	-735.5	-133.6	12.00	11.60	8.43
12,175.0	25.85	348.37	12,130.0	-205.9	-737.7	-123.3	12.00	11.69	6.62
12,200.0	28.79	349.71	12,152.2	-194.6	-739.9	-111.9	12.00	11.75	5.36
12,225.0	31.74	350.82	12,173.8	-182.2	-742.0	-99.3	12.00	11.79	4.44
12,250.0	34.69	351.76	12,194.7	-168.7	-744.1	-85.7	12.00	11.82	3.76
12,275.0	37.65	352.57	12,214.9	-154.1	-746.1	-70.9	12.00	11.85	3.24
12,300.0	40.62	353.27	12,234.2	-138.4	-746.0	-55.1	12.00	11.87	2.83
12,325.0	43.59	353.90	12,252.8	-121.7	-749.9	-38.4	12.00	11.88	2.51
12,350.0	46.56	354.46	12,270.4	-104.1	-751.7	-20.7	12.00	11.89	2.25
12,375.0	49.54	354.97	12,287.2	-85.6	-753.4	-2.1	12.00	11.90	2.04
12,400.0	52.52	355.44	12,302.9	-66.3	-755.0	17.3	12.00	11.91	1.86
12,425.0	55.50	355.87	12,317.6	-46.1	-756.6	37.6	12.00	11.92	1.72
12,450.0	58.48	356.27	12,331.2	-25.2	-758.0	58.5	12.00	11.92	1.60
12,475.0	61.46	356.64	12,343.7	-3.6	-759.3	80.1	12.00	11.93	1.50
12,500.0	64.44	357.00	12,355.1	18.6	-760.6	102.3	12.00	11.93	1.42
12,525.0	67.43	357.34	12,365.3	41.4	-761.7	125.1	12.00	11.94	1.35
12,550.0	70.41	357.66	12,374.2	64.7	-762.7	148.4	12.00	11.94	1.29
12,575.0	73.40	357.97	12,382.0	88.5	-763.6	172.1	12.00	11.94	1.25
12,600.0	76.38	358.27	12,388.5	112.6	-764.4	196.2	12.00	11.94	1.21
12,625.0	79.37	358.57	12,393.8	137.0	-765.1	220.5	12.00	11.94	1.18
12,650.0	82.36	358.86	12,397.7	161.7	-765.6	245.1	12.00	11.95	1.16
12,675.0	85.34	359.14	12,400.4	186.6	-766.1	269.8	12.00	11.95	1.14
12,700.0	88.33	359.42	12,401.8	211.5	-766.4	294.7	12.00	11.95	1.13
12,714.0	90.00	359.56	12,402.0	225.5	-766.5	306.6	12.00	11.95	1.13
12,800.0	90.00	359.56	12,402.0	311.5	-767.1	394.2	0.00	0.00	0.00
12,900.0	90.00	359.58	12,402.0	411.5	-767.9	493.6	0.00	0.00	0.00
13,000.0	90.00	359.58	12,402.0	511.5	-768.6	593.1	0.00	0.00	0.00
13,100.0	90.00	359.58	12,402.0	611.5	-769.3	692.6	0.00	0.00	0.00
13,200.0	90.00	359.58	12,402.0	711.5	-770.1	792.0	0.00	0.00	0.00
13,300.0	90.00	359.58	12,402.0	811.5	-770.8	891.5	0.00	0.00	0.00
13,400.0	90.00	359.58	12,402.0	911.5	-771.5	991.0	0.00	0.00	0.00
13,500.0	90.00	359.58	12,402.0	1,011.5	-772.3	1,090.4	0.00	0.00	0.00

Database: EDM 5000.14
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Local Co-ordinate Reference:
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Survey Calculation Method:

Well #703H
KB = 25' @ 3367.0usft
KB = 25' @ 3367.0usft
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)
13,600.0	90.00	359.58	12,402.0	1,111.5	-773.0	1,189.9	0.00	0.00	0.00
13,700.0	90.00	359.58	12,402.0	1,211.5	-773.7	1,289.4	0.00	0.00	0.00
13,800.0	90.00	359.58	12,402.0	1,311.5	-774.5	1,388.8	0.00	0.00	0.00
13,900.0	90.00	359.58	12,402.0	1,411.5	-775.2	1,488.3	0.00	0.00	0.00
14,000.0	90.00	359.58	12,402.0	1,511.5	-775.9	1,587.8	0.00	0.00	0.00
14,100.0	90.00	359.58	12,402.0	1,611.5	-776.7	1,687.3	0.00	0.00	0.00
14,200.0	90.00	359.58	12,402.0	1,711.5	-777.4	1,786.7	0.00	0.00	0.00
14,300.0	90.00	359.58	12,402.0	1,811.5	-778.1	1,886.2	0.00	0.00	0.00
14,400.0	90.00	359.58	12,402.0	1,911.5	-778.9	1,985.7	0.00	0.00	0.00
14,500.0	90.00	359.58	12,402.0	2,011.5	-779.6	2,085.1	0.00	0.00	0.00
14,600.0	90.00	359.58	12,402.0	2,111.5	-780.3	2,184.6	0.00	0.00	0.00
14,700.0	90.00	359.58	12,402.0	2,211.5	-781.1	2,284.1	0.00	0.00	0.00
14,800.0	90.00	359.58	12,402.0	2,311.5	-781.8	2,383.5	0.00	0.00	0.00
14,900.0	90.00	359.58	12,402.0	2,411.5	-782.5	2,483.0	0.00	0.00	0.00
15,000.0	90.00	359.58	12,402.0	2,511.5	-783.3	2,582.5	0.00	0.00	0.00
15,100.0	90.00	359.58	12,402.0	2,611.5	-784.0	2,681.9	0.00	0.00	0.00
15,200.0	90.00	359.58	12,402.0	2,711.5	-784.7	2,781.4	0.00	0.00	0.00
15,300.0	90.00	359.58	12,402.0	2,811.4	-785.5	2,880.9	0.00	0.00	0.00
15,400.0	90.00	359.58	12,402.0	2,911.4	-786.2	2,980.3	0.00	0.00	0.00
15,500.0	90.00	359.58	12,402.0	3,011.4	-786.9	3,079.8	0.00	0.00	0.00
15,600.0	90.00	359.58	12,402.0	3,111.4	-787.7	3,179.3	0.00	0.00	0.00
15,700.0	90.00	359.58	12,402.0	3,211.4	-788.4	3,278.8	0.00	0.00	0.00
15,800.0	90.00	359.58	12,402.0	3,311.4	-789.1	3,378.2	0.00	0.00	0.00
15,900.0	90.00	359.58	12,402.0	3,411.4	-789.9	3,477.7	0.00	0.00	0.00
16,000.0	90.00	359.58	12,402.0	3,511.4	-790.6	3,577.2	0.00	0.00	0.00
16,100.0	90.00	359.58	12,402.0	3,611.4	-791.3	3,676.6	0.00	0.00	0.00
16,200.0	90.00	359.58	12,402.0	3,711.4	-792.1	3,776.1	0.00	0.00	0.00
16,300.0	90.00	359.58	12,402.0	3,811.4	-792.8	3,875.6	0.00	0.00	0.00
16,400.0	90.00	359.58	12,402.0	3,911.4	-793.5	3,975.0	0.00	0.00	0.00
16,500.0	90.00	359.58	12,402.0	4,011.4	-794.3	4,074.5	0.00	0.00	0.00
16,600.0	90.00	359.58	12,402.0	4,111.4	-795.0	4,174.0	0.00	0.00	0.00
16,700.0	90.00	359.58	12,402.0	4,211.4	-795.7	4,273.4	0.00	0.00	0.00
16,800.0	90.00	359.58	12,402.0	4,311.4	-796.5	4,372.9	0.00	0.00	0.00
16,900.0	90.00	359.58	12,402.0	4,411.4	-797.2	4,472.4	0.00	0.00	0.00
17,000.0	90.00	359.58	12,402.0	4,511.4	-797.9	4,571.9	0.00	0.00	0.00
17,100.0	90.00	359.58	12,402.0	4,611.4	-798.7	4,671.3	0.00	0.00	0.00
17,200.0	90.00	359.58	12,402.0	4,711.4	-799.4	4,770.8	0.00	0.00	0.00
17,300.0	90.00	359.58	12,402.0	4,811.4	-800.1	4,870.3	0.00	0.00	0.00
17,400.0	90.00	359.58	12,402.0	4,911.4	-800.9	4,969.7	0.00	0.00	0.00
17,500.0	90.00	359.58	12,402.0	5,011.4	-801.6	5,069.2	0.00	0.00	0.00
17,600.0	90.00	359.58	12,402.0	5,111.4	-802.3	5,168.7	0.00	0.00	0.00
17,700.0	90.00	359.58	12,402.0	5,211.4	-803.1	5,268.1	0.00	0.00	0.00
17,800.0	90.00	359.58	12,402.0	5,311.4	-803.8	5,367.6	0.00	0.00	0.00
17,900.0	90.00	359.58	12,402.0	5,411.4	-804.5	5,467.1	0.00	0.00	0.00
18,000.0	90.00	359.58	12,402.0	5,511.4	-805.3	5,566.5	0.00	0.00	0.00
18,100.0	90.00	359.58	12,402.0	5,611.4	-806.0	5,666.0	0.00	0.00	0.00
18,200.0	90.00	359.58	12,402.0	5,711.4	-806.7	5,765.5	0.00	0.00	0.00
18,300.0	90.00	359.58	12,402.0	5,811.4	-807.4	5,865.0	0.00	0.00	0.00
18,400.0	90.00	359.58	12,402.0	5,911.4	-808.2	5,964.4	0.00	0.00	0.00
18,500.0	90.00	359.58	12,402.0	6,011.4	-808.9	6,063.9	0.00	0.00	0.00
18,600.0	90.00	359.58	12,402.0	6,111.4	-809.6	6,163.4	0.00	0.00	0.00
18,700.0	90.00	359.58	12,402.0	6,211.4	-810.4	6,262.8	0.00	0.00	0.00
18,800.0	90.00	359.58	12,402.0	6,311.4	-811.1	6,362.3	0.00	0.00	0.00
18,900.0	90.00	359.58	12,402.0	6,411.4	-811.8	6,461.8	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3367.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3367.0usft
Site:	Caballo 23 Fed 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)
19,000.0	90.00	359.58	12,402.0	6,511.3	-812.6	6,561.2	0.00	0.00	0.00
19,100.0	90.00	359.58	12,402.0	6,611.3	-813.3	6,660.7	0.00	0.00	0.00
19,200.0	90.00	359.58	12,402.0	6,711.3	-814.0	6,760.2	0.00	0.00	0.00
19,300.0	90.00	359.58	12,402.0	6,811.3	-814.8	6,859.6	0.00	0.00	0.00
19,400.0	90.00	359.58	12,402.0	6,911.3	-815.5	6,959.1	0.00	0.00	0.00
19,500.0	90.00	359.58	12,402.0	7,011.3	-816.2	7,058.6	0.00	0.00	0.00
19,600.0	90.00	359.58	12,402.0	7,111.3	-817.0	7,158.1	0.00	0.00	0.00
19,700.0	90.00	359.58	12,402.0	7,211.3	-817.7	7,257.5	0.00	0.00	0.00
19,800.0	90.00	359.58	12,402.0	7,311.3	-818.4	7,357.0	0.00	0.00	0.00
19,875.7	90.00	359.58	12,402.0	7,387.0	-819.0	7,432.3	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (Caballo 23 Fed C - plan hits target center - Point	0.00	0.00	12,402.0	7,387.0	-819.0	411,886.00	784,298.00	32° 7' 47.714 N	103° 32' 54.462 W
FTP (Caballo 23 Fed Co - plan misses target center by 40.4usft at 12525.0usft MD (12365.3 TVD, 41.4 N, -761.7 E) - Point	0.00	0.01	12,402.0	25.0	-765.0	404,524.00	784,352.00	32° 6' 34.861 N	103° 32' 54.457 W