

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS
OCD-Hobbs
MAY 23 2018
RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM108503
2. Name of Operator EOG RESOURCES INC		6. If Indian, Allottee or Tribe Name
Contact: STAN WAGNER E-Mail: stan_wagner@eogresources.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 1111 BAGBY SKY LOBBY2 HOUSTON, TX 77002	3b. Phone No. (include area code) Ph: 432-686-3689	8. Well Name and No. CABALLO 23 FED 703H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 23 T25S R33E SESW 300FSL 1755FWL 32.109600 N Lat, 103.545990 W Lon		9. API Well No. 30-025-43877-00-X1
		10. Field and Pool or Exploratory Area WC025G09S253336D-UPPER WC
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

EOG Resources requests an amendment to our approved APD for this well to reflect changes in BHL and TVD.

Change BHL to: 2411' FSL & 1269' FWL NWSW-14-25S-33E
Change TVD to: 12470'

*REQUIRES
NSL*

14. I hereby certify that the foregoing is true and correct. Electronic Submission #420701 verified by the BLM Well Information System For EOG RESOURCES INC, sent to the Hobbs Committed to AFMSS for processing by CHRISTOPHER WALLS on 05/18/2018 (18CRW0033SE)	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 05/18/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>[Signature]</i>	Title <i>SPE</i>	Date <i>5/18/18</i>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <i>CFO</i>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

[Signature]

District I
1625 N. French Dr. Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0720
District II
811 S First St. Artesia NM 88210
Phone (575) 748-1283 Fax (575) 748-9770
District III
1000 Rio Brazos Road, Aztec, NM 87411
Phone (505) 334-6178 Fax (505) 334-6170
District IV
1220 S. St. Francis Dr. Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3460

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-43877		² Pool Code 98094	³ Pool Name Bobcat Draw; Upper Wolfcamp
⁴ Property Code 38481	⁵ Property Name CABALLO 23 FED		⁶ Well Number #703H
⁷ GRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.		⁹ Elevation 3342'

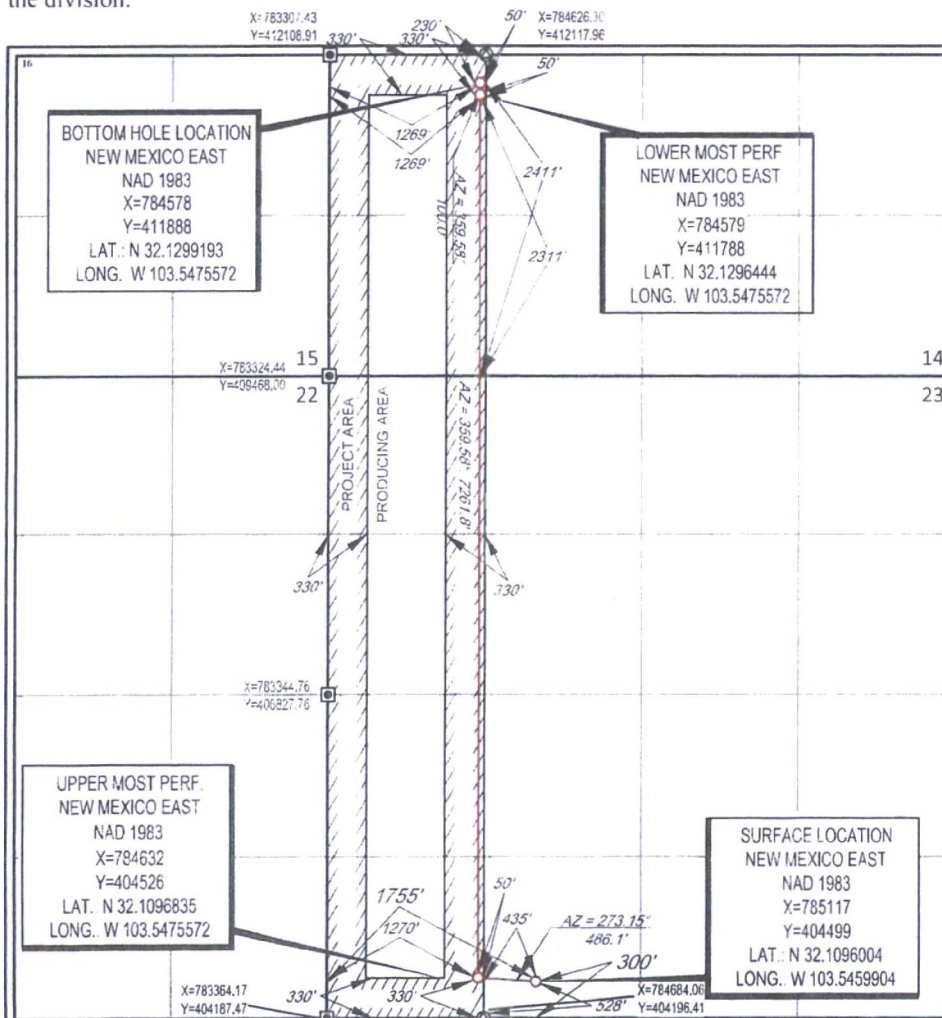
¹⁰Surface Location

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	23	25-S	33-E	-	300'	SOUTH	1755'	WEST	LEA

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	14	25-S	33-E	-	2411'	SOUTH	1269'	WEST	LEA

¹² Dedicated Acres 240.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stan Wagner 5/17/18
Signature Date

Stan Wagner
Printed Name

E-mail Address

¹⁸SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief

09/26/2017
Date of Survey

Signature and Seal of Professional Surveyor



Certificate Number

Revised Permit Information 5/17/18:

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 & 1269' 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'-19,943'	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
19,943'	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:

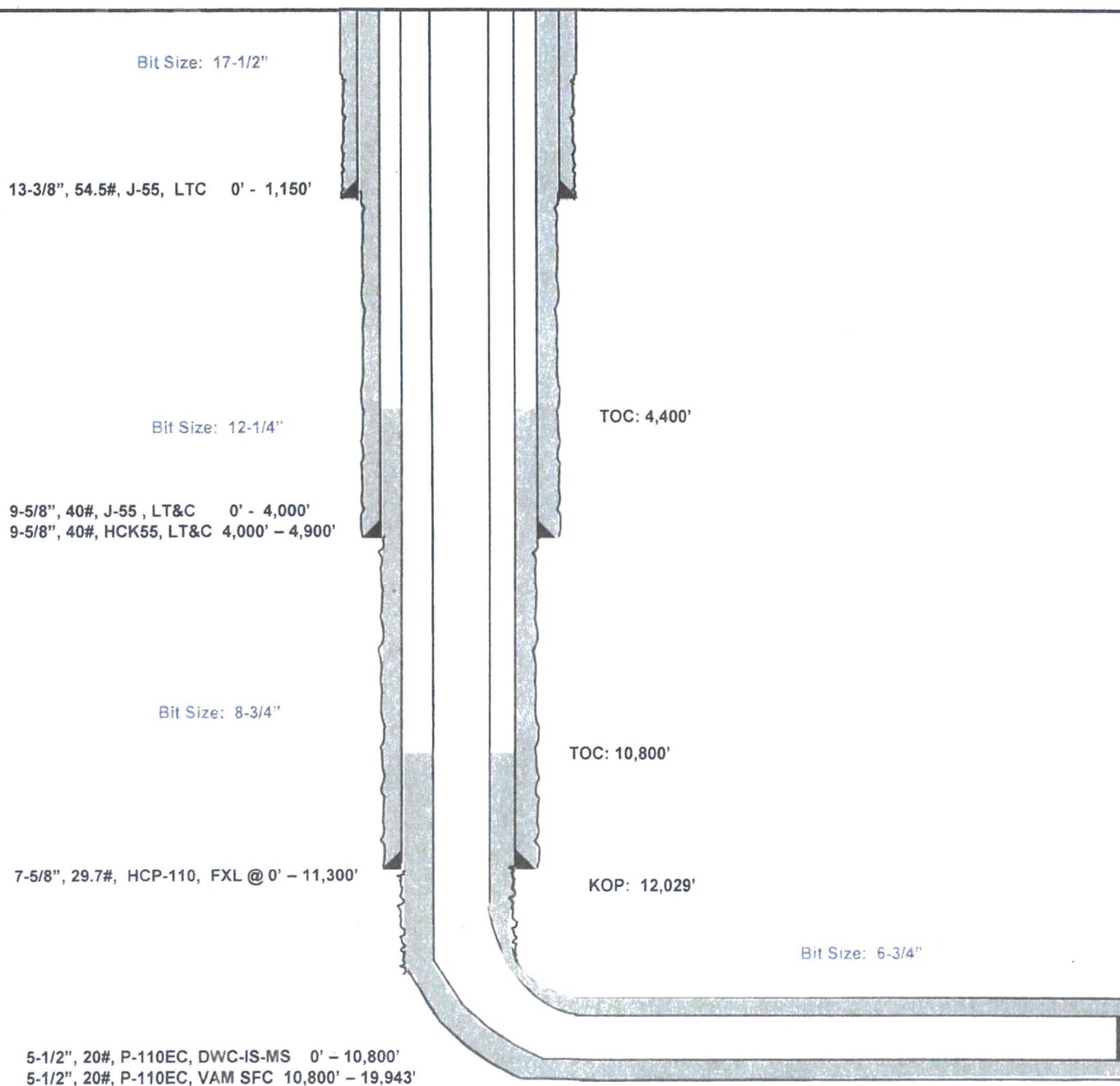
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 4,900'	Brine	10.0-10.2	28-34	N/c
4,900' – 11,300'	Oil Base	8.7-9.4	58-68	N/c - 6
11,300' – 19,943' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

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

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

Proposed Wellbore
Revised 5/17/18
API: 30-025-43877

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



Lateral: 19,943' MD, 12,470' TVD
Upper Most Perf:
330' FSL & 1270' FWL Sec. 23
Lower Most Perf:
2311' FSL & 1269' FWL Sec. 14
BH Location: 2411' FSL & 1269' FWL
Section 14
T-25-S, R-33-E



Lea County, NM (NAD 83 NME)

Caballo 23 Fed Com #703H

Plan #0.3

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

Ground Level: 3342.0
KB = 25' @ 3367.0usft
Northing: 404499.00
Easting: 786117.00
Latitude: 32° 6' 34.558 N
Longitude: 103° 32' 45.586 W

Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.43°

Magnetic Field
Strength: 47788.1nT
Dip Angle: 59.95°
Date: 4/16/2018
Model: IGRF2018

To convert a Magnetic Direction to a Grid Direction: Add 6.42
To convert a Magnetic Direction to a True Direction: Add 6.84° East
To convert a True Direction to a Grid Direction: Subtract 6.42

SECTION DETAILS

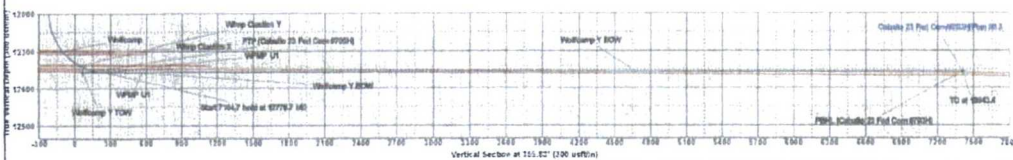
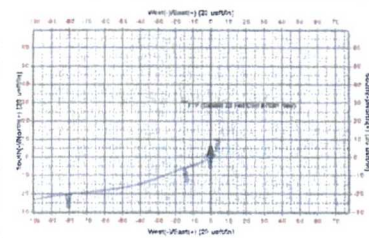
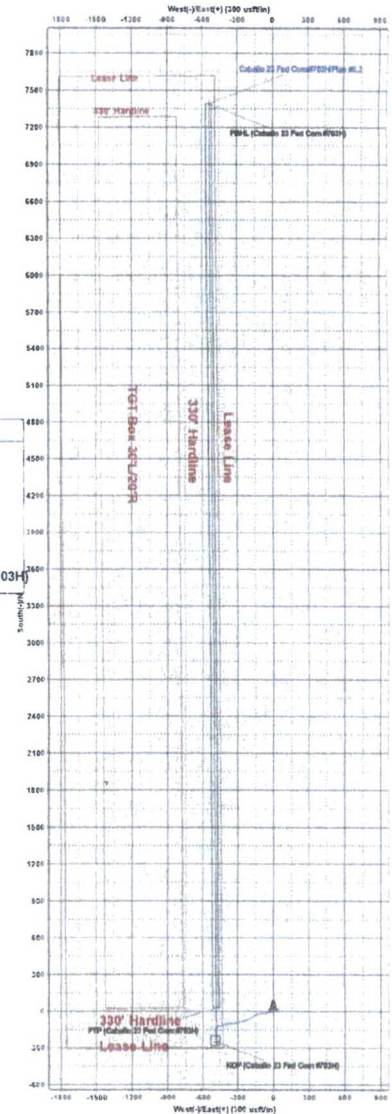
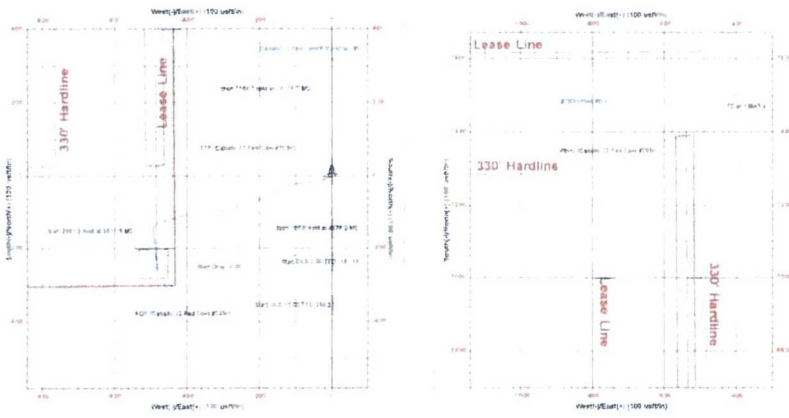
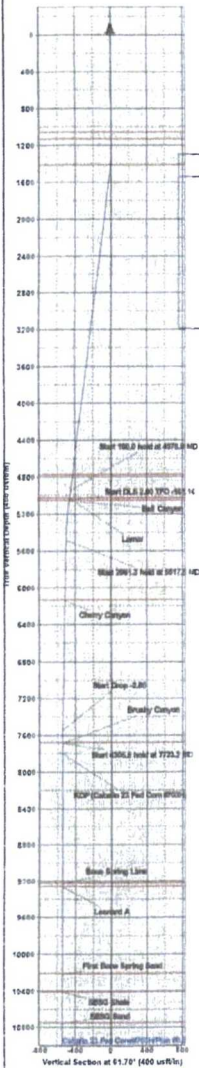
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSec	Target
1	4978.0	8.90	253.10	4947.8	-120.6	-446.8	0.00	0.00	-87.8	
2	5078.0	8.90	253.10	5046.6	-125.1	-461.6	0.00	0.00	-91.2	
3	5517.5	2.89	174.55	5484.0	-146.1	-493.2	2.00	-161.16	-109.8	
4	7578.9	2.89	174.55	7542.8	-249.4	-483.3	0.00	0.00	-213.6	
5	7723.2	0.00	0.00	7687.0	-253.0	-482.9	2.00	180.00	-217.2	
6	12028.7	0.00	0.00	11992.5	-253.0	-482.9	0.00	0.00	-217.2	
7	12778.7	90.00	359.58	12470.0	224.5	-486.5	12.00	359.58	259.3	
8	19943.4	90.00	359.58	12470.0	7389.0	-539.0	0.00	0.00	7408.6	PBHL (Caballo 23 Fed Com #703H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
NOP (Caballo 23 Fed Com #703H)	7800.0	-253.0	-482.9	404348.01	784634.05
FTP (Caballo 23 Fed Com #703H)	12470.0	27.0	-485.0	404528.00	784632.00
PBHL (Caballo 23 Fed Com #703H)	12470.0	7389.0	-539.0	411888.00	784678.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed Com

#703H

73827

OH

Plan: Plan #0.3

Standard Planning Report

17 May, 2018



Planning Report

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 #0.3

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	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

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	4/16/2018	6.84	59.95	47 788.13646065

Design	Plan #0.3			
Audit Notes:				
Version:		Phase:	PROTOTYPE	Tie On Depth: 4,978.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	355.83

Plan Survey Tool Program		Date	5/17/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	133.0	1,096.0	Cartel MWD 8' KB + 17' (OH)	MWD	
			OWSG MWD - Standard		
2	1,188.0	4,978.0	Cartel 18 22' KB + 3' (OH)	MWD	
			OWSG MWD - Standard		
3	4,976.0	19,943.4	Plan #0.3 (OH)	MWD	
			OWSG MWD - Standard		



Planning Report

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 #0.3

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

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
4,978.0	8.90	253.10	4,947.8	-120.6	-446.8	0.00	0.00	0.00	0.00	
5,078.0	8.90	253.10	5,046.6	-125.1	-461.6	0.00	0.00	0.00	0.00	
5,517.5	2.89	174.55	5,484.0	-146.1	-493.2	2.00	-1.37	-17.87	-161.16	
7,578.9	2.89	174.55	7,542.8	-249.4	-483.3	0.00	0.00	0.00	0.00	
7,723.2	0.00	0.01	7,687.0	-253.0	-482.9	2.00	-2.00	0.00	180.00	
12,028.7	0.00	0.01	11,992.5	-253.0	-482.9	0.00	0.00	0.00	0.00	
12,778.7	90.00	359.58	12,470.0	224.5	-486.5	12.00	12.00	-0.06	359.58	
19,943.4	90.00	359.58	12,470.0	7,389.0	-539.0	0.00	0.00	0.00	0.00	PBHL (Caballo 23 Fed)



Planning Report

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 #0.3

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

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
133.0	0.09	139.64	133.0	-0.1	0.1	-0.1	0.07	0.07	0.00
282.0	0.31	101.34	282.0	-0.2	0.5	-0.3	0.16	0.15	-25.70
409.0	0.09	80.94	409.0	-0.3	1.0	-0.4	0.18	-0.17	-16.06
536.0	0.22	80.15	536.0	-0.2	1.3	-0.3	0.10	0.10	-0.62
663.0	0.09	292.82	663.0	-0.2	1.5	-0.3	0.24	-0.10	-116.01
790.0	0.62	230.72	790.0	-0.6	0.8	-0.6	0.46	0.42	-48.90
917.0	0.22	282.94	917.0	-0.9	0.1	-0.9	0.41	-0.31	41.12
1,045.0	0.00	6.72	1,045.0	-0.9	-0.2	-0.9	0.17	-0.17	0.00
1,096.0	0.09	206.15	1,096.0	-0.9	-0.2	-0.9	0.18	0.18	0.00
1,188.0	0.50	321.00	1,188.0	-0.7	-0.5	-0.6	0.59	0.45	124.84
1,278.0	1.10	232.00	1,278.0	-0.9	-1.4	-0.8	1.33	0.67	-98.89
1,319.0	1.90	239.70	1,319.0	-1.5	-2.3	-1.3	2.01	1.95	18.78
1,362.0	2.50	242.70	1,361.9	-2.3	-3.7	-2.0	1.42	1.40	6.98
1,406.0	3.60	250.10	1,405.9	-3.2	-5.9	-2.7	2.65	2.50	16.82
1,449.0	4.80	252.20	1,448.8	-4.2	-8.9	-3.5	2.81	2.79	4.88
1,493.0	6.20	253.60	1,492.6	-5.4	-12.9	-4.5	3.20	3.18	3.18
1,580.0	7.30	248.80	1,579.0	-8.8	-22.6	-7.1	1.42	1.26	-5.52
1,624.0	6.80	248.90	1,622.6	-10.7	-27.6	-8.7	1.14	-1.14	0.23
1,668.0	6.70	248.20	1,666.3	-12.6	-32.4	-10.2	0.29	-0.23	-1.59
1,711.0	7.20	254.70	1,709.0	-14.2	-37.4	-11.5	2.17	1.16	15.12
1,755.0	7.70	256.50	1,752.6	-15.7	-42.9	-12.5	1.25	1.14	4.09
1,799.0	8.10	260.00	1,796.2	-16.9	-48.8	-13.3	1.42	0.91	7.95
1,851.0	8.70	263.10	1,847.7	-18.0	-56.3	-13.8	1.45	1.15	5.96
2,017.0	8.00	265.30	2,011.9	-20.4	-80.3	-14.5	0.46	-0.42	1.33
2,191.0	7.30	257.90	2,184.3	-23.8	-103.2	-16.2	0.69	-0.40	-4.25
2,323.0	7.20	260.30	2,315.3	-26.9	-119.5	-18.1	0.24	-0.08	1.82
2,409.0	6.50	257.00	2,400.7	-28.9	-129.6	-19.4	0.93	-0.81	-3.84
2,452.0	6.10	256.00	2,443.4	-30.0	-134.2	-20.2	0.96	-0.93	-2.33
2,496.0	6.20	252.00	2,487.2	-31.3	-138.7	-21.1	1.00	0.23	-9.09
2,540.0	6.70	251.00	2,530.9	-32.9	-143.4	-22.4	1.16	1.14	-2.27
2,583.0	7.50	243.00	2,573.6	-35.0	-148.2	-24.1	2.95	1.86	-18.60
2,671.0	8.40	239.80	2,660.7	-40.8	-158.9	-29.1	1.14	1.02	-3.64
2,714.0	8.00	238.70	2,703.3	-43.9	-164.2	-31.9	1.00	-0.93	-2.56
2,758.0	7.80	241.40	2,746.9	-47.0	-169.4	-34.5	0.96	-0.45	6.14
2,845.0	7.20	238.80	2,833.1	-52.6	-179.3	-39.4	0.79	-0.69	-2.99
2,932.0	7.10	243.00	2,919.4	-57.9	-188.7	-44.0	0.61	-0.11	4.83
3,020.0	6.70	244.00	3,006.8	-62.6	-198.2	-48.0	0.47	-0.45	1.14
3,107.0	6.50	243.00	3,093.2	-67.1	-207.1	-51.8	0.27	-0.23	-1.15
3,151.0	6.90	244.00	3,136.9	-69.3	-211.7	-53.6	0.95	0.91	2.27
3,194.0	6.90	246.50	3,179.6	-71.5	-216.4	-55.6	0.70	0.00	5.81
3,238.0	7.40	248.00	3,223.3	-73.6	-221.5	-57.3	1.21	1.14	3.41
3,325.0	7.10	251.50	3,309.6	-77.4	-231.8	-60.4	0.61	-0.34	4.02
3,411.0	6.70	253.20	3,394.9	-80.6	-241.6	-62.8	0.52	-0.47	1.98
3,499.0	6.90	253.00	3,482.3	-83.6	-251.6	-65.1	0.23	0.23	-0.23
3,594.0	7.70	255.00	3,576.6	-86.9	-263.2	-67.5	0.88	0.84	2.11
3,739.0	7.40	256.80	3,720.3	-91.6	-281.7	-70.8	0.26	-0.21	1.24
3,806.0	7.60	256.70	3,786.7	-93.6	-290.2	-72.2	0.30	0.30	-0.15
3,937.0	8.10	260.70	3,916.5	-97.0	-307.7	-74.4	0.57	0.38	3.05
4,079.0	8.60	262.30	4,057.0	-100.1	-328.1	-75.9	0.39	0.35	1.13
4,252.0	8.70	263.20	4,228.0	-103.4	-353.9	-77.3	0.10	0.06	0.52
4,351.0	8.00	262.90	4,326.0	-105.1	-368.2	-78.0	0.71	-0.71	-0.30
4,460.0	7.40	262.90	4,434.0	-106.9	-382.7	-78.8	0.55	-0.55	0.00
4,599.0	6.90	262.50	4,571.9	-109.1	-399.8	-79.7	0.36	-0.36	-0.29



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4,635.0	6.90	262.50	4,607.6	-109.7	-404.1	-80.0	0.00	0.00	0.00
4,766.0	6.70	256.30	4,737.7	-112.5	-419.4	-81.7	0.58	-0.15	-4.73
4,897.0	8.00	251.80	4,867.7	-117.2	-435.4	-85.2	1.08	0.99	-3.44
4,926.0	8.30	253.50	4,896.4	-118.4	-439.4	-86.1	1.33	1.03	5.86
4,978.0	8.90	253.10	4,947.8	-120.6	-446.8	-87.8	1.16	1.15	-0.77
5,000.0	8.90	253.10	4,969.5	-121.6	-450.1	-88.5	0.00	0.00	0.00
5,061.2	8.90	253.10	5,030.0	-124.4	-459.1	-90.6	0.00	0.00	0.00
Lamar									
5,078.0	8.90	253.10	5,046.6	-125.1	-461.6	-91.2	0.00	0.00	0.00
5,090.6	8.66	252.56	5,059.0	-125.7	-463.4	-91.6	2.00	-1.89	-4.29
Bell Canyon									
5,100.0	8.48	252.14	5,068.3	-126.1	-464.8	-92.0	2.00	-1.88	-4.50
5,200.0	6.64	246.27	5,167.4	-130.7	-477.1	-95.6	2.00	-1.85	-5.87
5,300.0	4.91	236.12	5,266.9	-135.4	-485.9	-99.7	2.00	-1.73	-10.15
5,400.0	3.49	216.55	5,366.7	-140.2	-491.3	-104.1	2.00	-1.42	-19.57
5,500.0	2.86	181.53	5,466.5	-145.2	-493.2	-108.9	2.00	-0.62	-35.02
5,517.5	2.89	174.55	5,484.0	-146.1	-493.2	-109.8	2.00	0.13	-39.82
5,600.0	2.89	174.55	5,566.4	-150.2	-492.8	-113.9	0.00	0.00	0.00
5,700.0	2.89	174.55	5,666.3	-155.2	-492.3	-119.0	0.00	0.00	0.00
5,800.0	2.89	174.55	5,766.1	-160.2	-491.8	-124.0	0.00	0.00	0.00
5,900.0	2.89	174.55	5,866.0	-165.2	-491.3	-129.0	0.00	0.00	0.00
6,000.0	2.89	174.55	5,965.9	-170.2	-490.8	-134.1	0.00	0.00	0.00
6,100.0	2.89	174.55	6,065.8	-175.3	-490.4	-139.1	0.00	0.00	0.00
6,174.3	2.89	174.55	6,140.0	-179.0	-490.0	-142.9	0.00	0.00	0.00
Cherry Canyon									
6,200.0	2.89	174.55	6,165.6	-180.3	-489.9	-144.1	0.00	0.00	0.00
6,300.0	2.89	174.55	6,265.5	-185.3	-489.4	-149.2	0.00	0.00	0.00
6,400.0	2.89	174.55	6,365.4	-190.3	-488.9	-154.2	0.00	0.00	0.00
6,500.0	2.89	174.55	6,465.3	-195.3	-488.5	-159.2	0.00	0.00	0.00
6,600.0	2.89	174.55	6,565.1	-200.3	-488.0	-164.3	0.00	0.00	0.00
6,700.0	2.89	174.55	6,665.0	-205.3	-487.5	-169.3	0.00	0.00	0.00
6,800.0	2.89	174.55	6,764.9	-210.3	-487.0	-174.3	0.00	0.00	0.00
6,900.0	2.89	174.55	6,864.8	-215.3	-486.5	-179.4	0.00	0.00	0.00
7,000.0	2.89	174.55	6,964.6	-220.4	-486.1	-184.4	0.00	0.00	0.00
7,100.0	2.89	174.55	7,064.5	-225.4	-485.6	-189.4	0.00	0.00	0.00
7,200.0	2.89	174.55	7,164.4	-230.4	-485.1	-194.5	0.00	0.00	0.00
7,300.0	2.89	174.55	7,264.2	-235.4	-484.6	-199.5	0.00	0.00	0.00
7,400.0	2.89	174.55	7,364.1	-240.4	-484.2	-204.5	0.00	0.00	0.00
7,500.0	2.89	174.55	7,464.0	-245.4	-483.7	-209.6	0.00	0.00	0.00
7,578.9	2.89	174.55	7,542.8	-249.4	-483.3	-213.6	0.00	0.00	0.00
7,600.0	2.46	174.55	7,563.9	-250.4	-483.2	-214.5	2.00	-2.00	0.00
7,700.0	0.46	174.55	7,663.8	-252.9	-483.0	-217.1	2.00	-2.00	0.00
7,723.2	0.00	0.01	7,687.0	-253.0	-482.9	-217.2	2.00	-2.00	0.00
Brushy Canyon									
7,800.0	0.00	0.00	7,763.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
7,836.2	0.00	0.00	7,800.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
KOP (Caballo 23 Fed Com #703H)									
7,900.0	0.00	0.00	7,863.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,963.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,100.0	0.00	0.00	8,063.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,200.0	0.00	0.00	8,163.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,263.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,363.8	-253.0	-482.9	-217.2	0.00	0.00	0.00



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8,500.0	0.00	0.00	8,463.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,563.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,663.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,763.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,863.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,963.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,063.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,163.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,265.2	0.00	0.00	9,229.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
Bone Spring Lime									
9,300.0	0.00	0.00	9,263.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,303.2	0.00	0.00	9,267.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
Leonard A									
9,400.0	0.00	0.00	9,363.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,500.0	0.00	0.00	9,463.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,600.0	0.00	0.00	9,563.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,700.0	0.00	0.00	9,663.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,800.0	0.00	0.00	9,763.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
9,900.0	0.00	0.00	9,863.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,000.0	0.00	0.00	9,963.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,100.0	0.00	0.00	10,063.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,200.0	0.00	0.00	10,163.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,256.2	0.00	0.00	10,220.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
First Bone Spring Sand									
10,300.0	0.00	0.00	10,263.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,400.0	0.00	0.00	10,363.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,452.2	0.00	0.00	10,416.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
SBSG Shale									
10,500.0	0.00	0.00	10,463.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,600.0	0.00	0.00	10,563.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,700.0	0.00	0.00	10,663.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,792.2	0.00	0.00	10,756.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
SBSG Sand									
10,800.0	0.00	0.00	10,763.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
10,900.0	0.00	0.00	10,863.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,000.0	0.00	0.00	10,963.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,100.0	0.00	0.00	11,063.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,200.0	0.00	0.00	11,163.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,275.2	0.00	0.00	11,239.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
Third Bone Spring Carb									
11,300.0	0.00	0.00	11,263.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,400.0	0.00	0.00	11,363.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,500.0	0.00	0.00	11,463.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,600.0	0.00	0.00	11,563.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,700.0	0.00	0.00	11,663.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,800.0	0.00	0.00	11,763.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,875.2	0.00	0.00	11,839.0	-253.0	-482.9	-217.2	0.00	0.00	0.00
Third Bone Spring Sand									
11,900.0	0.00	0.00	11,863.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
11,990.7	0.00	0.00	11,954.5	-253.0	-482.9	-217.2	0.00	0.00	0.00
KOP (Caballo 23 Fed Com #703H New)									
12,000.0	0.00	0.00	11,963.8	-253.0	-482.9	-217.2	0.00	0.00	0.00
12,028.7	0.00	0.01	11,992.5	-253.0	-482.9	-217.2	0.00	0.00	0.00



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12,050.0	2.56	359.58	12,013.8	-252.5	-483.0	-216.7	12.00	12.00	0.00
12,075.0	5.56	359.58	12,038.8	-250.7	-483.0	-214.9	12.00	12.00	0.00
12,100.0	8.56	359.58	12,063.6	-247.7	-483.0	-211.9	12.00	12.00	0.00
12,125.0	11.56	359.58	12,088.2	-243.3	-483.0	-207.5	12.00	12.00	0.00
12,150.0	14.56	359.58	12,112.5	-237.7	-483.1	-201.9	12.00	12.00	0.00
12,175.0	17.56	359.58	12,136.5	-230.7	-483.1	-195.0	12.00	12.00	0.00
12,200.0	20.56	359.58	12,160.2	-222.6	-483.2	-186.8	12.00	12.00	0.00
12,225.0	23.56	359.58	12,183.3	-213.2	-483.2	-177.5	12.00	12.00	0.00
12,250.0	26.56	359.58	12,206.0	-202.6	-483.3	-166.9	12.00	12.00	0.00
12,275.0	29.56	359.58	12,228.0	-190.8	-483.4	-155.2	12.00	12.00	0.00
12,300.0	32.56	359.58	12,249.5	-178.0	-483.5	-142.3	12.00	12.00	0.00
12,325.0	35.56	359.58	12,270.2	-164.0	-483.6	-128.3	12.00	12.00	0.00
12,350.0	38.56	359.58	12,290.1	-148.9	-483.7	-113.3	12.00	12.00	0.00
12,359.1	39.66	359.58	12,297.2	-143.1	-483.8	-107.6	12.00	12.00	0.00
Wolfcamp									
12,375.0	41.56	359.58	12,309.2	-132.8	-483.8	-97.2	12.00	12.00	0.00
12,395.6	44.03	359.58	12,324.3	-118.8	-483.9	-83.3	12.00	12.00	0.00
Wfmp Clastics X									
12,400.0	44.56	359.58	12,327.5	-115.7	-484.0	-80.2	12.00	12.00	0.00
12,425.0	47.56	359.58	12,344.9	-97.7	-484.1	-62.3	12.00	12.00	0.00
12,450.0	50.56	359.58	12,361.2	-78.9	-484.2	-43.4	12.00	12.00	0.00
12,475.0	53.56	359.58	12,376.6	-59.1	-484.4	-23.7	12.00	12.00	0.00
12,500.0	56.56	359.58	12,390.9	-38.6	-484.5	-3.3	12.00	12.00	0.00
12,525.0	59.56	359.58	12,404.1	-17.4	-484.7	17.9	12.00	12.00	0.00
12,545.2	61.98	359.58	12,414.0	0.2	-484.8	35.4	12.00	12.00	0.00
Wfmp Clastics Y									
12,550.0	62.56	359.58	12,416.2	4.4	-484.8	39.7	12.00	12.00	0.00
12,556.2	63.30	359.58	12,419.1	9.9	-484.9	45.2	12.00	12.00	0.00
Wolfcamp Y TOW									
12,575.0	65.56	359.58	12,427.2	26.9	-485.0	62.1	12.00	12.00	0.00
12,577.2	65.82	359.58	12,428.1	28.9	-485.0	64.1	12.00	12.00	0.00
FTP (Caballo 23 Fed Com #703H New)									
12,591.8	67.57	359.58	12,433.8	42.3	-485.1	77.5	12.00	12.00	0.00
FTP (Caballo 23 Fed Com #703H)									
12,600.0	68.56	359.58	12,436.9	49.9	-485.2	85.1	12.00	12.00	0.00
12,621.7	71.16	359.58	12,444.4	70.3	-485.3	105.4	12.00	12.00	0.00
Wolfcamp Y BOW									
12,625.0	71.56	359.58	12,445.4	73.4	-485.3	106.5	12.00	12.00	0.00
12,650.0	74.56	359.58	12,452.7	97.3	-485.5	132.4	12.00	12.00	0.00
12,675.0	77.56	359.58	12,458.8	121.6	-485.7	156.6	12.00	12.00	0.00
12,700.0	80.56	359.58	12,463.5	146.1	-485.9	181.1	12.00	12.00	0.00
12,725.0	83.56	359.58	12,467.0	170.9	-486.1	205.8	12.00	12.00	0.00
12,735.5	84.82	359.58	12,468.0	181.3	-486.1	216.2	12.00	12.00	0.00
WFMP U1									
12,750.0	86.56	359.58	12,469.1	195.8	-486.2	230.7	12.00	12.00	0.00
12,775.0	89.56	359.58	12,470.0	220.8	-486.4	255.6	12.00	12.00	0.00
12,778.7	90.00	359.58	12,470.0	224.5	-486.5	259.3	12.00	12.00	0.00
12,800.0	90.00	359.58	12,470.0	245.8	-486.6	280.5	0.00	0.00	0.00
12,900.0	90.00	359.58	12,470.0	345.8	-487.3	380.3	0.00	0.00	0.00
13,000.0	90.00	359.58	12,470.0	445.8	-488.1	480.1	0.00	0.00	0.00
13,100.0	90.00	359.58	12,470.0	545.8	-488.8	579.9	0.00	0.00	0.00
13,200.0	90.00	359.58	12,470.0	645.8	-489.5	679.7	0.00	0.00	0.00
13,300.0	90.00	359.58	12,470.0	745.8	-490.3	779.5	0.00	0.00	0.00



Planning Report

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 #0.3

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

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	359.58	12,470.0	845.8	-491.0	879.3	0.00	0.00	0.00
13,471.1	90.00	359.58	12,470.0	916.9	-491.5	950.2	0.00	0.00	0.00
TGT #1(Caballo 23 Fed Com #703H)									
13,500.0	90.00	359.58	12,470.0	945.8	-491.7	979.0	0.00	0.00	0.00
13,600.0	90.00	359.58	12,470.0	1,045.8	-492.5	1,078.8	0.00	0.00	0.00
13,700.0	90.00	359.58	12,470.0	1,145.8	-493.2	1,178.6	0.00	0.00	0.00
13,800.0	90.00	359.58	12,470.0	1,245.8	-493.9	1,278.4	0.00	0.00	0.00
13,900.0	90.00	359.58	12,470.0	1,345.8	-494.7	1,378.2	0.00	0.00	0.00
14,000.0	90.00	359.58	12,470.0	1,445.8	-495.4	1,478.0	0.00	0.00	0.00
14,100.0	90.00	359.58	12,470.0	1,545.8	-496.1	1,577.8	0.00	0.00	0.00
14,200.0	90.00	359.58	12,470.0	1,645.8	-496.9	1,677.5	0.00	0.00	0.00
14,300.0	90.00	359.58	12,470.0	1,745.7	-497.6	1,777.3	0.00	0.00	0.00
14,400.0	90.00	359.58	12,470.0	1,845.7	-498.3	1,877.1	0.00	0.00	0.00
14,500.0	90.00	359.58	12,470.0	1,945.7	-499.1	1,976.9	0.00	0.00	0.00
14,600.0	90.00	359.58	12,470.0	2,045.7	-499.8	2,076.7	0.00	0.00	0.00
14,700.0	90.00	359.58	12,470.0	2,145.7	-500.5	2,176.5	0.00	0.00	0.00
14,800.0	90.00	359.58	12,470.0	2,245.7	-501.3	2,276.3	0.00	0.00	0.00
14,900.0	90.00	359.58	12,470.0	2,345.7	-502.0	2,376.0	0.00	0.00	0.00
15,000.0	90.00	359.58	12,470.0	2,445.7	-502.7	2,475.8	0.00	0.00	0.00
15,100.0	90.00	359.58	12,470.0	2,545.7	-503.5	2,575.6	0.00	0.00	0.00
15,200.0	90.00	359.58	12,470.0	2,645.7	-504.2	2,675.4	0.00	0.00	0.00
15,300.0	90.00	359.58	12,470.0	2,745.7	-504.9	2,775.2	0.00	0.00	0.00
15,400.0	90.00	359.58	12,470.0	2,845.7	-505.7	2,875.0	0.00	0.00	0.00
15,482.6	90.00	359.58	12,470.0	2,928.3	-506.3	2,957.3	0.00	0.00	0.00
TGT #2(Caballo 23 Fed Com #703H)									
15,500.0	90.00	359.58	12,470.0	2,945.7	-506.4	2,974.8	0.00	0.00	0.00
15,600.0	90.00	359.58	12,470.0	3,045.7	-507.1	3,074.5	0.00	0.00	0.00
15,700.0	90.00	359.58	12,470.0	3,145.7	-507.9	3,174.3	0.00	0.00	0.00
15,800.0	90.00	359.58	12,470.0	3,245.7	-508.6	3,274.1	0.00	0.00	0.00
15,900.0	90.00	359.58	12,470.0	3,345.7	-509.3	3,373.9	0.00	0.00	0.00
16,000.0	90.00	359.58	12,470.0	3,445.7	-510.1	3,473.7	0.00	0.00	0.00
16,100.0	90.00	359.58	12,470.0	3,545.7	-510.8	3,573.5	0.00	0.00	0.00
16,200.0	90.00	359.58	12,470.0	3,645.7	-511.5	3,673.3	0.00	0.00	0.00
16,300.0	90.00	359.58	12,470.0	3,745.7	-512.3	3,773.0	0.00	0.00	0.00
16,400.0	90.00	359.58	12,470.0	3,845.7	-513.0	3,872.8	0.00	0.00	0.00
16,500.0	90.00	359.58	12,470.0	3,945.7	-513.7	3,972.6	0.00	0.00	0.00
16,600.0	90.00	359.58	12,470.0	4,045.7	-514.5	4,072.4	0.00	0.00	0.00
16,700.0	90.00	359.58	12,470.0	4,145.7	-515.2	4,172.2	0.00	0.00	0.00
16,800.0	90.00	359.58	12,470.0	4,245.7	-515.9	4,272.0	0.00	0.00	0.00
16,900.0	90.00	359.58	12,470.0	4,345.7	-516.7	4,371.8	0.00	0.00	0.00
17,000.0	90.00	359.58	12,470.0	4,445.7	-517.4	4,471.5	0.00	0.00	0.00
17,100.0	90.00	359.58	12,470.0	4,545.7	-518.1	4,571.3	0.00	0.00	0.00
17,200.0	90.00	359.58	12,470.0	4,645.7	-518.9	4,671.1	0.00	0.00	0.00
17,300.0	90.00	359.58	12,470.0	4,745.7	-519.6	4,770.9	0.00	0.00	0.00
17,400.0	90.00	359.58	12,470.0	4,845.7	-520.3	4,870.7	0.00	0.00	0.00
17,500.0	90.00	359.58	12,470.0	4,945.7	-521.1	4,970.5	0.00	0.00	0.00
17,600.0	90.00	359.58	12,470.0	5,045.7	-521.8	5,070.3	0.00	0.00	0.00
17,700.0	90.00	359.58	12,470.0	5,145.7	-522.5	5,170.0	0.00	0.00	0.00
17,800.0	90.00	359.58	12,470.0	5,245.7	-523.3	5,269.8	0.00	0.00	0.00
17,900.0	90.00	359.58	12,470.0	5,345.7	-524.0	5,369.6	0.00	0.00	0.00
17,996.9	90.00	359.58	12,470.0	5,442.6	-524.7	5,466.3	0.00	0.00	0.00
TGT #3(Caballo 23 Fed Com #703H)									
18,000.0	90.00	359.58	12,470.0	5,445.6	-524.7	5,469.4	0.00	0.00	0.00



Planning Report

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 Site: Caballo 23 Fed Com
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 Design: Plan #0.3

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

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)
18,100.0	90.00	359.58	12,470.0	5,545.6	-525.5	5,569.2	0.00	0.00	0.00
18,200.0	90.00	359.58	12,470.0	5,645.6	-526.2	5,669.0	0.00	0.00	0.00
18,300.0	90.00	359.58	12,470.0	5,745.6	-526.9	5,768.8	0.00	0.00	0.00
18,400.0	90.00	359.58	12,470.0	5,845.6	-527.7	5,868.5	0.00	0.00	0.00
18,500.0	90.00	359.58	12,470.0	5,945.6	-528.4	5,968.3	0.00	0.00	0.00
18,600.0	90.00	359.58	12,470.0	6,045.6	-529.1	6,068.1	0.00	0.00	0.00
18,700.0	90.00	359.58	12,470.0	6,145.6	-529.9	6,167.9	0.00	0.00	0.00
18,800.0	90.00	359.58	12,470.0	6,245.6	-530.6	6,267.7	0.00	0.00	0.00
18,900.0	90.00	359.58	12,470.0	6,345.6	-531.3	6,367.5	0.00	0.00	0.00
19,000.0	90.00	359.58	12,470.0	6,445.6	-532.1	6,467.3	0.00	0.00	0.00
19,100.0	90.00	359.58	12,470.0	6,545.6	-532.8	6,567.0	0.00	0.00	0.00
19,200.0	90.00	359.58	12,470.0	6,645.6	-533.5	6,666.8	0.00	0.00	0.00
19,300.0	90.00	359.58	12,470.0	6,745.6	-534.3	6,766.6	0.00	0.00	0.00
19,304.4	90.00	359.58	12,470.0	6,750.0	-534.3	6,771.0	0.00	0.00	0.00
TGT #4(Caballo 23 Fed Com #703H)									
19,400.0	90.00	359.58	12,470.0	6,845.6	-535.0	6,866.4	0.00	0.00	0.00
19,500.0	90.00	359.58	12,470.0	6,945.6	-535.7	6,966.2	0.00	0.00	0.00
19,600.0	90.00	359.58	12,470.0	7,045.6	-536.5	7,066.0	0.00	0.00	0.00
19,700.0	90.00	359.58	12,470.0	7,145.6	-537.2	7,165.8	0.00	0.00	0.00
19,800.0	90.00	359.58	12,470.0	7,245.6	-537.9	7,265.5	0.00	0.00	0.00
19,900.0	90.00	359.58	12,470.0	7,345.6	-538.7	7,365.3	0.00	0.00	0.00
19,943.4	90.00	359.58	12,470.0	7,389.0	-539.0	7,408.6	0.00	0.00	0.00

PBHL (Caballo 23 Fed Com #703H) - PBHL (Caballo 23 Fed Com #703H New)

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									
KOP (Caballo 23 Fed Co	0.00	0.01	7,800.0	-253.0	-482.9	404,246.01	784,634.05	32° 6' 32.089 N	103° 32' 51.202 W
- plan hits target center									
- Polygon									
Point 1			7,800.0	50.0	-50.0	404,296.01	784,584.05		
Point 2			7,800.0	50.0	30.0	404,296.01	784,664.05		
Point 3			7,800.0	-30.0	30.0	404,216.01	784,664.04		
Point 4			7,800.0	-30.0	-50.0	404,216.01	784,584.04		
PBHL (Caballo 23 Fed C	90.00	359.57	12,470.0	7,389.0	-539.0	411,888.00	784,578.00	32° 7' 47.713 N	103° 32' 51.206 W
- plan hits target center									
- Rectangle (sides W50.0 H0.0 D7,362.0)									
FTP (Caballo 23 Fed Co	0.00	0.01	12,470.0	27.0	-485.0	404,526.00	784,632.00	32° 6' 34.860 N	103° 32' 51.202 W
- plan misses target center by 39.3usft at 12591.8usft MD (12433.8 TVD, 42.3 N -485.1 E)									
- Point									



Planning Report

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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

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,065.0	1,065.0	Rustler				
1,139.0	1,139.0	Tamarisk Anhydrite				
1,424.2	1,424.0	Top of Salt				
4,812.6	4,784.0	Bottom of Salt				
5,061.2	5,030.0	Lamar				
5,090.6	5,059.0	Bell Canyon				
6,174.3	6,140.0	Cherry Canyon				
7,723.2	7,687.0	Brushy Canyon				
9,265.2	9,229.0	Bone Spring Lime				
9,303.2	9,267.0	Leonard A				
10,256.2	10,220.0	First Bone Spring Sand				
10,452.2	10,416.0	SBSG Shale				
10,792.2	10,756.0	SBSG Sand				
11,275.2	11,239.0	Third Bone Spring Carb				
11,875.2	11,839.0	Third Bone Spring Sand				
12,359.1	12,297.2	Wolfcamp		0.32		
12,395.6	12,324.3	Wfmp Clastics X		0.32		
12,545.2	12,414.0	Wfmp Clastics Y		0.32		
12,556.2	12,419.1	Wolfcamp Y TOW		0.32		
12,621.7	12,444.4	Wolfcamp Y BOW		0.32		
12,735.5	12,468.0	WFMP U1		0.32		