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District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Sante Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Sante 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- 43008	² Pool Code 98094	³ Pool Name WC-025 G-09 S253336D; Upper Wolfcamp
⁴ Property Code 38965	⁵ Property Name BLACK BEAR 36 STATE	
⁶ Well Number #703H	⁷ Operator Name EOG RESOURCES, INC.	
⁸ OGRID No. 7377	⁹ Elevation 3325'	

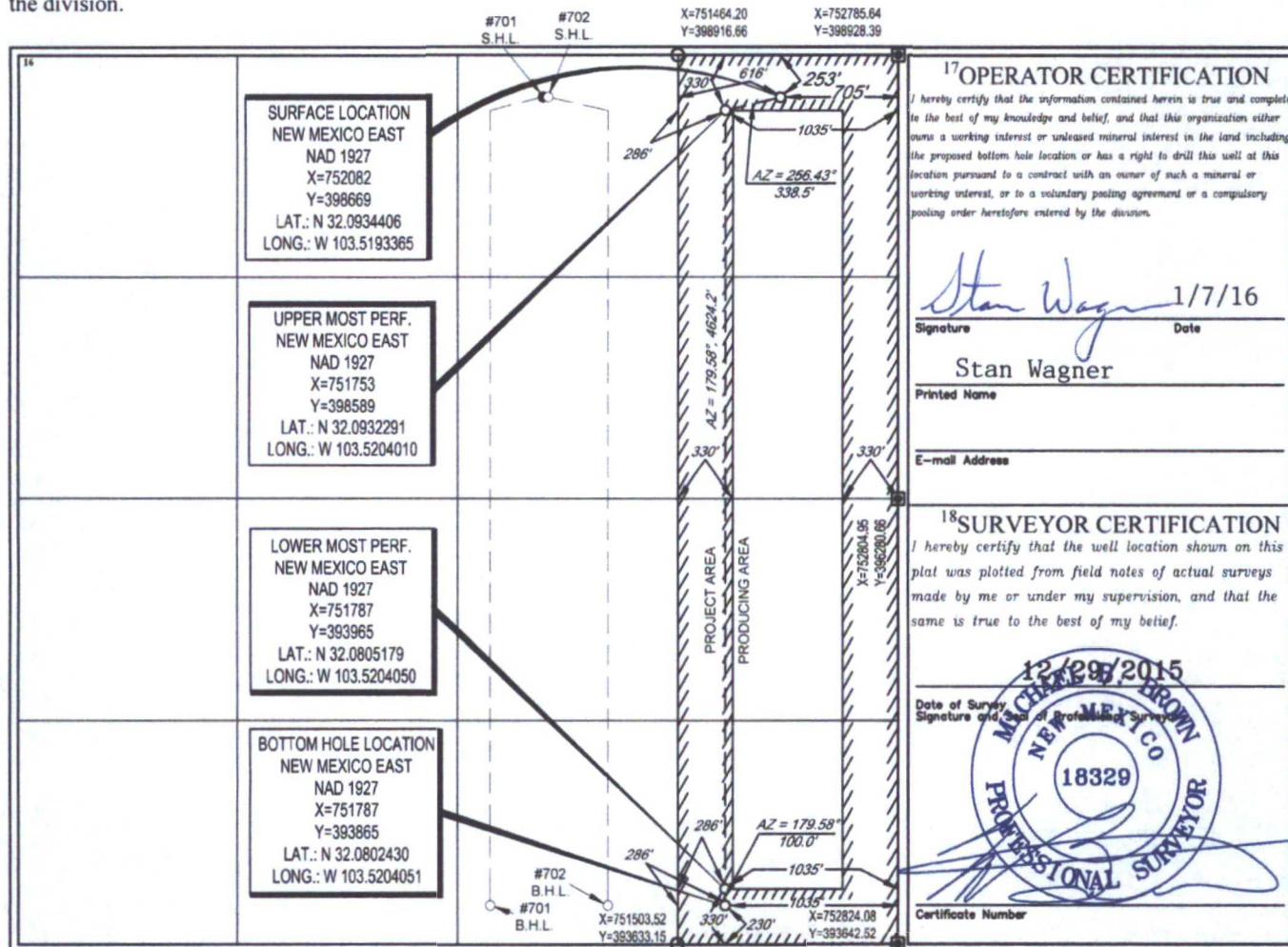
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	36	25-S	33-E	-	253'	NORTH	705'	EAST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	25-S	33-E	-	230'	SOUTH	1035'	EAST	LEA

¹² Dedicated Acres 160.00	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.



S:\SURVEY\EOG_MIDLAND\BLACK_BEAR_36_STATE\FINAL_PRODUCTS\LO_BLACKBEAR36STATE_703H.DWG 1/8/2016 9:12:36 AM ccaaton

JAN 14 2016

Permit Information:

Well Name: Black Bear 36 State No. 703H

Location:

SL: 253' FNL & 705' FEL, Section 36, T-25-S, R-33-E, Lea Co., N.M.

BHL: 230' FSL & 1035' FEL, Section 36, 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
14.75"	0 - 1,065'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875"	0-10,500'	7.625"	29.7#	HCP-110	LTC	1.125	1.25	1.60
6.75"	0'-10,500'	5.5"	23#	HCP-110	JFE	1.125	1.25	1.60
6.75"	10,500' - 17,416'	5"	23.2#	P-110	JFE	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1,065'	300	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
10,700' DV Tool w/ ECP @ 5,150'	350	10.8	3.68	Stage 1 Lead: Class C + 15.00 lbs/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sx Static Free
	250	15.6	1.19	Stage 1 Tail: Class H + 1.0% FL-52 + 0.6% CD-32 + 0.5% SMS + 1.0% Salt + 0.3% R-3
	650	12.7	2.22	Stage 2 Lead: Class 'C' + 2.0% SMS + 10.0% Slat + 0.55% R-21 + 0.25 pps Celloflake + 0.005 pps Static Free (TOC @ Surface)
	200	14.8	1.35	Stage 2 Tail: Class 'C' + 0.60% FL-62 + 0.7% CD-32 + 0.3% SMS + 2.0% Salt + 0.10% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L
17,416'	625	14.2	1.35	50:50:2 Class H + 0.65% FL-52 + 0.70% CD-32 + 1.0% EC-1 + 0.40% SMS + 2.0% Salt + 0.05% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L (TOC @ 10,000')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,065'	Fresh - Gel	8.6-8.8	28-34	N/c
1,065' - 10,500'	Oil Base	8.7-9.4	58-68	N/c - 6
10,500' - 12,124'	Oil Base	8.7-9.4	58-68	N/c - 6
12,124' - 17,416' Lateral	Oil Base	9.0-9.5	58-68	N/c - 6

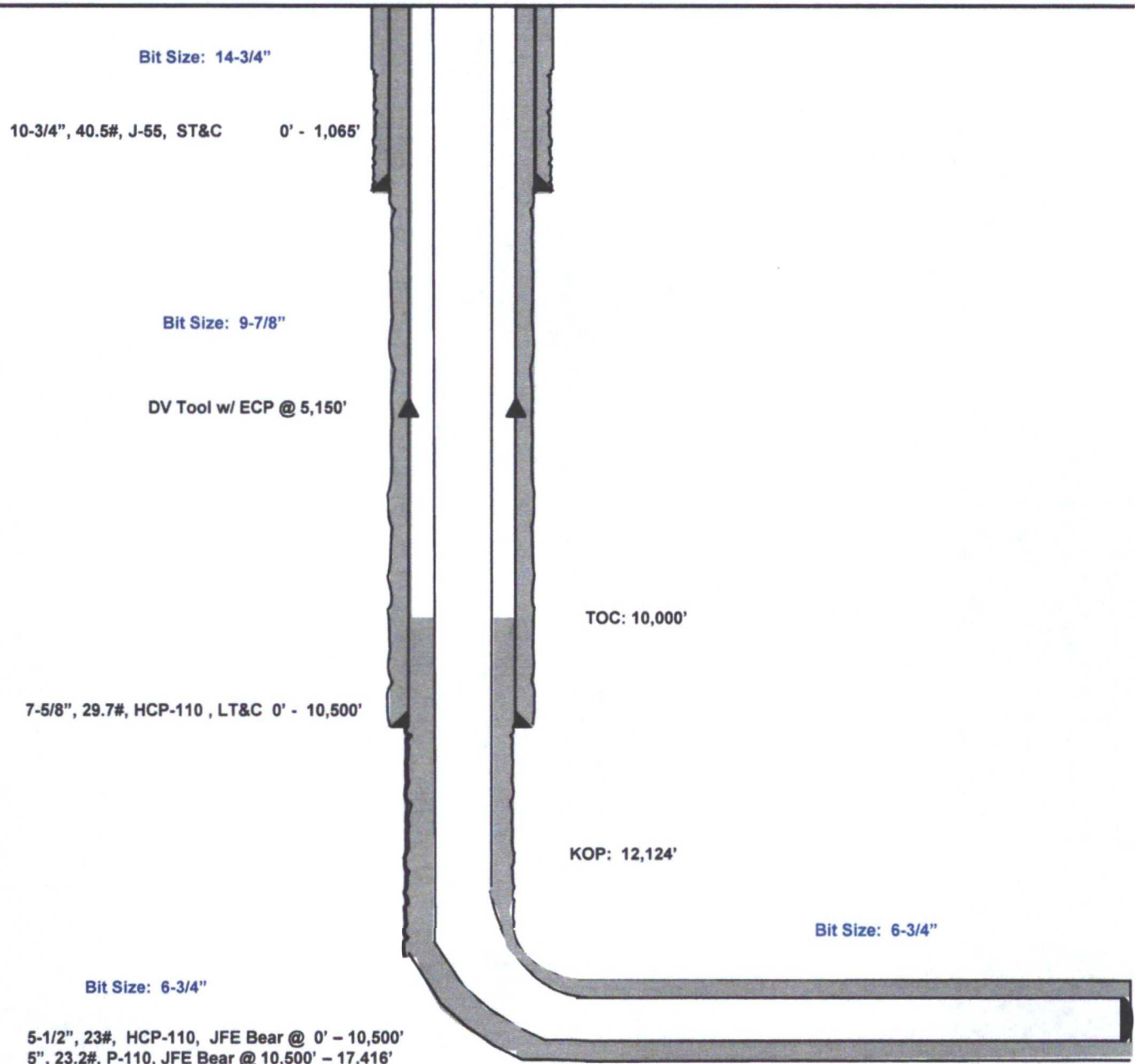
Black Bear 36 State #703H

Lea County, New Mexico
Proposed Wellbore

253' FNL
705' FEL
Section 36
T-25-S, R-33-E

API: 30-025-*****

KB: 3,350'
GL: 3,325'



Lateral: 17,416' MD, 12,605' TVD

BH Location: 230' FSL & 1035' FEL
Section 36
T-25-S, R-33-E



Lea County, NM (NAD 27 NME)

Black Bear 36 State

#703H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



Azimuths to Grid North
True North: -8.43°
Magnetic North: 5.64°
Magnetic Field
Strength: 49014.8nT
Dip Angle: 58.87°
Date: 1/7/2016
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 5.64°
To convert a Magnetic Direction to a True Direction, Add 7.06° East
To convert a True Direction to a Grid Direction, Subtract 5.43°

WELL DETAILS: #703H

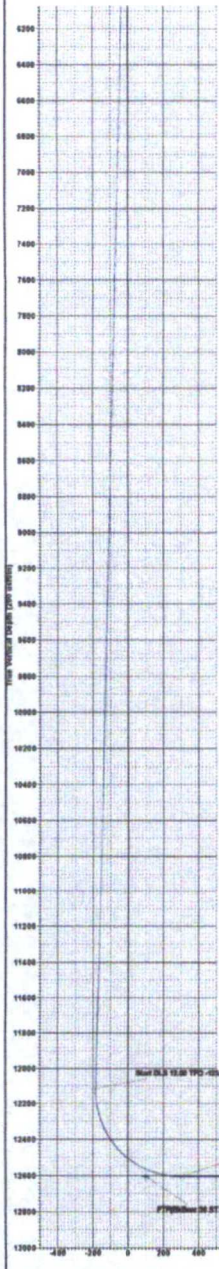
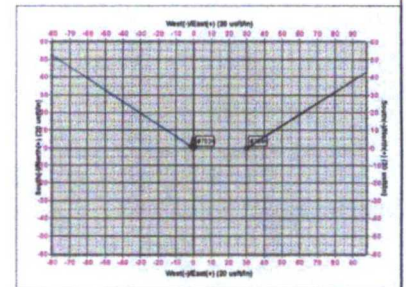
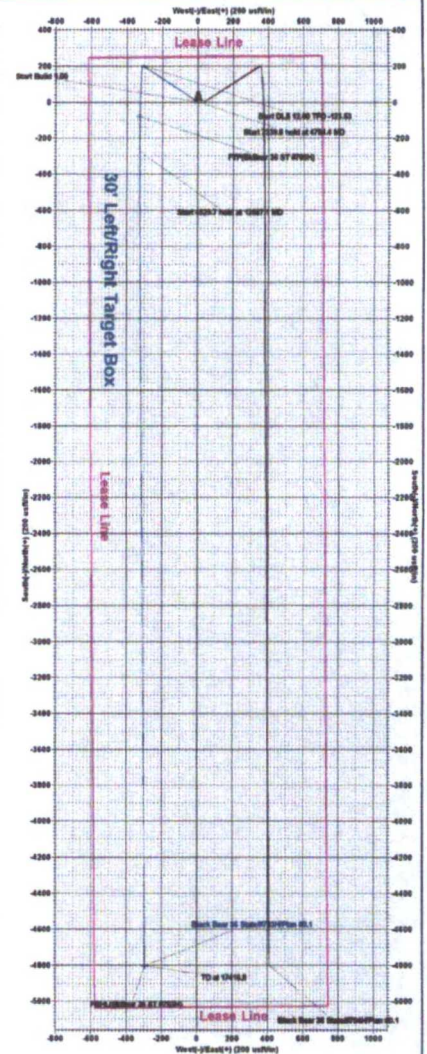
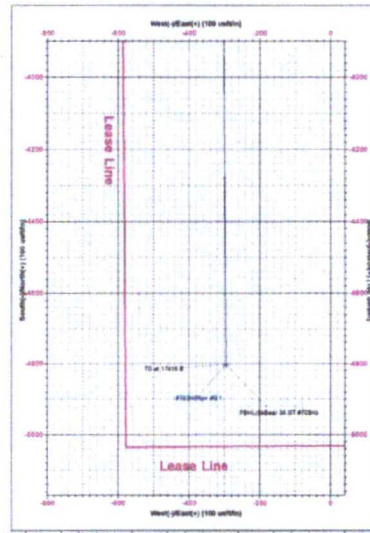
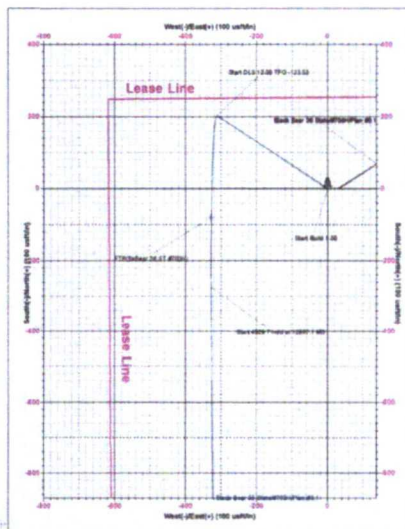
	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Site
Ground Level			3325.0				
KB = 25 @ 3350 South							
	0.0	0.0	38868.00	75282.00	32° 5' 36.390 N	103° 31' 5.613 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSECT	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0	
3	4784.4	2.84	303.16	4784.2	3.9	-5.9	1.00	303.16	-3.5	
4	12124.0	2.84	303.16	12114.9	203.0	-310.8	0.00	0.00	-183.6	
5	12887.1	90.00	179.59	12805.0	-274.4	-327.6	12.00	-123.53	284.0	
6	17416.8	90.00	179.59	12605.0	-4804.0	-295.0	0.00	0.00	4813.0	PBHL(BkBear 36 ST #703H)

WELLSBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PTPB(BkBear 36 ST #703H)	12605.0	-480.0	-325.0	38868.00	75175.00	Point
PBHL(BkBear 36 ST #703H)	12605.0	-4804.0	-295.0	38868.00	75175.00	Point



Scale: 1 inch = 100 feet
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Black Bear 36 State

#703H

OH

Plan: Plan #0.1

Standard Planning Report

07 January, 2016



EOG Resources, Inc.
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3350.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3350.0usft
Site:	Black Bear 36 State	North Reference:	Grid
Well:	#703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Black Bear 36 State			
Site Position:		Northing:	398,659.00 usft	Latitude: 32° 5' 36.397 N
From: Map		Easting:	750,659.00 usft	Longitude: 103° 31' 26.155 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.43 °

Well	#703H			
Well Position	+N/-S	10.0 usft	Northing:	398,669.00 usft
	+E/-W	1,423.0 usft	Easting:	752,082.00 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	0.0 usft
			Ground Level:	3,325.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/7/2016	7.08	59.97	48,015

Design	Plan #0.1			
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	183.51

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	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,784.4	2.84	303.16	4,784.2	3.9	-5.9	1.00	1.00	0.00	303.16	
12,124.0	2.84	303.16	12,114.9	203.0	-310.8	0.00	0.00	0.00	0.00	
12,887.1	90.00	179.59	12,605.0	-274.4	-327.6	12.00	11.42	-16.19	-123.53	
17,416.8	90.00	179.59	12,605.0	-4,804.0	-295.0	0.00	0.00	0.00	0.00	PBHL(BkBear 36 ST :



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Black Bear 36 State
Well: #703H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25 @ 3350.0usft
MD Reference: KB = 25 @ 3350.0usft
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	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	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	1.00	303.16	4,600.0	0.5	-0.7	-0.4	1.00	1.00	0.00
4,700.0	2.00	303.16	4,700.0	1.9	-2.9	-1.7	1.00	1.00	0.00
4,784.4	2.84	303.16	4,784.2	3.9	-5.9	-3.5	1.00	1.00	0.00
4,800.0	2.84	303.16	4,799.9	4.3	-6.6	-3.9	0.00	0.00	0.00
4,900.0	2.84	303.16	4,899.7	7.0	-10.7	-6.3	0.00	0.00	0.00
5,000.0	2.84	303.16	4,999.6	9.7	-14.9	-8.8	0.00	0.00	0.00
5,100.0	2.84	303.16	5,099.5	12.4	-19.0	-11.2	0.00	0.00	0.00
5,200.0	2.84	303.16	5,199.4	15.1	-23.2	-13.7	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Black Bear 36 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 @ 3350.0usft
KB = 25 @ 3350.0usft
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)
5,300.0	2.84	303.16	5,299.2	17.8	-27.3	-16.1	0.00	0.00	0.00
5,400.0	2.84	303.16	5,399.1	20.6	-31.5	-18.6	0.00	0.00	0.00
5,500.0	2.84	303.16	5,499.0	23.3	-35.6	-21.0	0.00	0.00	0.00
5,600.0	2.84	303.16	5,598.9	26.0	-39.8	-23.5	0.00	0.00	0.00
5,700.0	2.84	303.16	5,698.8	28.7	-43.9	-26.0	0.00	0.00	0.00
5,800.0	2.84	303.16	5,798.6	31.4	-48.1	-28.4	0.00	0.00	0.00
5,900.0	2.84	303.16	5,898.5	34.1	-52.2	-30.9	0.00	0.00	0.00
6,000.0	2.84	303.16	5,998.4	36.8	-56.4	-33.3	0.00	0.00	0.00
6,100.0	2.84	303.16	6,098.3	39.6	-60.5	-35.8	0.00	0.00	0.00
6,200.0	2.84	303.16	6,198.1	42.3	-64.7	-38.2	0.00	0.00	0.00
6,300.0	2.84	303.16	6,298.0	45.0	-68.9	-40.7	0.00	0.00	0.00
6,400.0	2.84	303.16	6,397.9	47.7	-73.0	-43.1	0.00	0.00	0.00
6,500.0	2.84	303.16	6,497.8	50.4	-77.2	-45.6	0.00	0.00	0.00
6,600.0	2.84	303.16	6,597.6	53.1	-81.3	-48.0	0.00	0.00	0.00
6,700.0	2.84	303.16	6,697.5	55.8	-85.5	-50.5	0.00	0.00	0.00
6,800.0	2.84	303.16	6,797.4	58.5	-89.6	-52.9	0.00	0.00	0.00
6,900.0	2.84	303.16	6,897.3	61.3	-93.8	-55.4	0.00	0.00	0.00
7,000.0	2.84	303.16	6,997.2	64.0	-97.9	-57.9	0.00	0.00	0.00
7,100.0	2.84	303.16	7,097.0	66.7	-102.1	-60.3	0.00	0.00	0.00
7,200.0	2.84	303.16	7,196.9	69.4	-106.2	-62.8	0.00	0.00	0.00
7,300.0	2.84	303.16	7,296.8	72.1	-110.4	-65.2	0.00	0.00	0.00
7,400.0	2.84	303.16	7,396.7	74.8	-114.5	-67.7	0.00	0.00	0.00
7,500.0	2.84	303.16	7,496.5	77.5	-118.7	-70.1	0.00	0.00	0.00
7,600.0	2.84	303.16	7,596.4	80.3	-122.9	-72.6	0.00	0.00	0.00
7,700.0	2.84	303.16	7,696.3	83.0	-127.0	-75.0	0.00	0.00	0.00
7,800.0	2.84	303.16	7,796.2	85.7	-131.2	-77.5	0.00	0.00	0.00
7,900.0	2.84	303.16	7,896.0	88.4	-135.3	-79.9	0.00	0.00	0.00
8,000.0	2.84	303.16	7,995.9	91.1	-139.5	-82.4	0.00	0.00	0.00
8,100.0	2.84	303.16	8,095.8	93.8	-143.6	-84.8	0.00	0.00	0.00
8,200.0	2.84	303.16	8,195.7	96.5	-147.8	-87.3	0.00	0.00	0.00
8,300.0	2.84	303.16	8,295.6	99.2	-151.9	-89.7	0.00	0.00	0.00
8,400.0	2.84	303.16	8,395.4	102.0	-156.1	-92.2	0.00	0.00	0.00
8,500.0	2.84	303.16	8,495.3	104.7	-160.2	-94.7	0.00	0.00	0.00
8,600.0	2.84	303.16	8,595.2	107.4	-164.4	-97.1	0.00	0.00	0.00
8,700.0	2.84	303.16	8,695.1	110.1	-168.5	-99.6	0.00	0.00	0.00
8,800.0	2.84	303.16	8,794.9	112.8	-172.7	-102.0	0.00	0.00	0.00
8,900.0	2.84	303.16	8,894.8	115.5	-176.8	-104.5	0.00	0.00	0.00
9,000.0	2.84	303.16	8,994.7	118.2	-181.0	-106.9	0.00	0.00	0.00
9,100.0	2.84	303.16	9,094.6	121.0	-185.2	-109.4	0.00	0.00	0.00
9,200.0	2.84	303.16	9,194.4	123.7	-189.3	-111.8	0.00	0.00	0.00
9,300.0	2.84	303.16	9,294.3	126.4	-193.5	-114.3	0.00	0.00	0.00
9,400.0	2.84	303.16	9,394.2	129.1	-197.6	-116.7	0.00	0.00	0.00
9,500.0	2.84	303.16	9,494.1	131.8	-201.8	-119.2	0.00	0.00	0.00
9,600.0	2.84	303.16	9,594.0	134.5	-205.9	-121.6	0.00	0.00	0.00
9,700.0	2.84	303.16	9,693.8	137.2	-210.1	-124.1	0.00	0.00	0.00
9,800.0	2.84	303.16	9,793.7	139.9	-214.2	-126.6	0.00	0.00	0.00
9,900.0	2.84	303.16	9,893.6	142.7	-218.4	-129.0	0.00	0.00	0.00
10,000.0	2.84	303.16	9,993.5	145.4	-222.5	-131.5	0.00	0.00	0.00
10,100.0	2.84	303.16	10,093.3	148.1	-226.7	-133.9	0.00	0.00	0.00
10,200.0	2.84	303.16	10,193.2	150.8	-230.8	-136.4	0.00	0.00	0.00
10,300.0	2.84	303.16	10,293.1	153.5	-235.0	-138.8	0.00	0.00	0.00
10,400.0	2.84	303.16	10,393.0	156.2	-239.1	-141.3	0.00	0.00	0.00
10,500.0	2.84	303.16	10,492.8	158.9	-243.3	-143.7	0.00	0.00	0.00
10,600.0	2.84	303.16	10,592.7	161.7	-247.5	-146.2	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Black Bear 36 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 @ 3350.0usft
KB = 25 @ 3350.0usft
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	2.84	303.16	10,692.6	164.4	-251.6	-148.6	0.00	0.00	0.00
10,800.0	2.84	303.16	10,792.5	167.1	-255.8	-151.1	0.00	0.00	0.00
10,900.0	2.84	303.16	10,892.4	169.8	-259.9	-153.5	0.00	0.00	0.00
11,000.0	2.84	303.16	10,992.2	172.5	-264.1	-156.0	0.00	0.00	0.00
11,100.0	2.84	303.16	11,092.1	175.2	-268.2	-158.4	0.00	0.00	0.00
11,200.0	2.84	303.16	11,192.0	177.9	-272.4	-160.9	0.00	0.00	0.00
11,300.0	2.84	303.16	11,291.9	180.6	-276.5	-163.4	0.00	0.00	0.00
11,400.0	2.84	303.16	11,391.7	183.4	-280.7	-165.8	0.00	0.00	0.00
11,500.0	2.84	303.16	11,491.6	186.1	-284.8	-168.3	0.00	0.00	0.00
11,600.0	2.84	303.16	11,591.5	188.8	-289.0	-170.7	0.00	0.00	0.00
11,700.0	2.84	303.16	11,691.4	191.5	-293.1	-173.2	0.00	0.00	0.00
11,800.0	2.84	303.16	11,791.2	194.2	-297.3	-175.6	0.00	0.00	0.00
11,900.0	2.84	303.16	11,891.1	196.9	-301.4	-178.1	0.00	0.00	0.00
12,000.0	2.84	303.16	11,991.0	199.6	-305.6	-180.5	0.00	0.00	0.00
12,100.0	2.84	303.16	12,090.9	202.3	-309.8	-183.0	0.00	0.00	0.00
12,124.0	2.84	303.16	12,114.9	203.0	-310.8	-183.6	0.00	0.00	0.00
12,150.0	2.83	236.45	12,140.8	203.0	-311.8	-183.5	12.00	-0.05	-256.70
12,175.0	5.13	207.06	12,165.8	201.7	-312.8	-182.1	12.00	9.19	-117.53
12,200.0	7.91	196.92	12,190.6	199.0	-313.9	-179.4	12.00	11.13	-40.56
12,225.0	10.81	192.11	12,215.3	195.1	-314.8	-175.4	12.00	11.59	-19.25
12,250.0	13.75	189.33	12,239.7	189.9	-315.8	-170.1	12.00	11.77	-11.14
12,275.0	16.71	187.51	12,263.8	183.4	-316.8	-163.6	12.00	11.85	-7.26
12,300.0	19.68	186.23	12,287.6	175.6	-317.7	-155.8	12.00	11.89	-5.12
12,325.0	22.66	185.28	12,310.9	166.6	-318.6	-146.8	12.00	11.92	-3.82
12,350.0	25.65	184.53	12,333.7	156.4	-319.5	-136.6	12.00	11.94	-2.97
12,375.0	28.64	183.93	12,355.9	145.1	-320.3	-125.2	12.00	11.95	-2.39
12,400.0	31.63	183.44	12,377.5	132.5	-321.1	-112.6	12.00	11.96	-1.97
12,425.0	34.62	183.02	12,398.5	118.9	-321.9	-99.0	12.00	11.97	-1.67
12,450.0	37.61	182.67	12,418.7	104.2	-322.6	-84.2	12.00	11.97	-1.43
12,475.0	40.60	182.36	12,438.1	88.4	-323.3	-68.5	12.00	11.97	-1.25
12,500.0	43.60	182.08	12,456.6	71.7	-323.9	-51.7	12.00	11.98	-1.11
12,525.0	46.59	181.83	12,474.3	54.0	-324.6	-34.0	12.00	11.98	-0.99
12,550.0	49.59	181.61	12,491.0	35.4	-325.1	-15.4	12.00	11.98	-0.90
12,575.0	52.58	181.40	12,506.7	16.0	-325.6	4.0	12.00	11.98	-0.82
12,600.0	55.58	181.21	12,521.3	-4.3	-326.1	24.3	12.00	11.98	-0.76
12,625.0	58.58	181.04	12,534.9	-25.3	-326.5	45.2	12.00	11.99	-0.70
12,650.0	61.57	180.87	12,547.4	-46.9	-326.9	66.9	12.00	11.99	-0.66
12,675.0	64.57	180.72	12,558.7	-69.2	-327.2	89.1	12.00	11.99	-0.62
12,700.0	67.57	180.57	12,568.8	-92.1	-327.4	111.9	12.00	11.99	-0.59
12,701.7	67.77	180.56	12,569.5	-93.6	-327.4	113.5	12.00	11.99	-0.58
FTP(BkBear 36 ST #703H)									
12,725.0	70.56	180.42	12,577.8	-115.4	-327.6	135.3	12.00	11.99	-0.57
12,750.0	73.56	180.29	12,585.5	-139.2	-327.8	159.0	12.00	11.99	-0.55
12,775.0	76.56	180.15	12,591.9	-163.3	-327.9	183.1	12.00	11.99	-0.53
12,800.0	79.56	180.02	12,597.1	-187.8	-327.9	207.5	12.00	11.99	-0.52
12,825.0	82.55	179.90	12,601.0	-212.5	-327.9	232.2	12.00	11.99	-0.51
12,850.0	85.55	179.77	12,603.6	-237.3	-327.8	257.0	12.00	11.99	-0.50
12,875.0	88.55	179.65	12,604.8	-262.3	-327.7	281.9	12.00	11.99	-0.50
12,887.1	90.00	179.59	12,605.0	-274.4	-327.6	294.0	12.00	11.99	-0.50
12,900.0	90.00	179.59	12,605.0	-287.3	-327.5	306.8	0.00	0.00	0.00
13,000.0	90.00	179.59	12,605.0	-387.3	-326.8	406.6	0.00	0.00	0.00
13,100.0	90.00	179.59	12,605.0	-487.3	-326.1	506.4	0.00	0.00	0.00
13,200.0	90.00	179.59	12,605.0	-587.3	-325.3	606.1	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Black Bear 36 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 @ 3350.0usft
KB = 25 @ 3350.0usft
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	179.59	12,605.0	-687.3	-324.6	705.9	0.00	0.00	0.00
13,400.0	90.00	179.59	12,605.0	-787.3	-323.9	805.7	0.00	0.00	0.00
13,500.0	90.00	179.59	12,605.0	-887.3	-323.2	905.4	0.00	0.00	0.00
13,600.0	90.00	179.59	12,605.0	-987.3	-322.5	1,005.2	0.00	0.00	0.00
13,700.0	90.00	179.59	12,605.0	-1,087.3	-321.8	1,105.0	0.00	0.00	0.00
13,800.0	90.00	179.59	12,605.0	-1,187.3	-321.0	1,204.7	0.00	0.00	0.00
13,900.0	90.00	179.59	12,605.0	-1,287.3	-320.3	1,304.5	0.00	0.00	0.00
14,000.0	90.00	179.59	12,605.0	-1,387.3	-319.6	1,404.3	0.00	0.00	0.00
14,100.0	90.00	179.59	12,605.0	-1,487.3	-318.9	1,504.0	0.00	0.00	0.00
14,200.0	90.00	179.59	12,605.0	-1,587.3	-318.2	1,603.8	0.00	0.00	0.00
14,300.0	90.00	179.59	12,605.0	-1,687.3	-317.4	1,703.6	0.00	0.00	0.00
14,400.0	90.00	179.59	12,605.0	-1,787.3	-316.7	1,803.3	0.00	0.00	0.00
14,500.0	90.00	179.59	12,605.0	-1,887.3	-316.0	1,903.1	0.00	0.00	0.00
14,600.0	90.00	179.59	12,605.0	-1,987.3	-315.3	2,002.8	0.00	0.00	0.00
14,700.0	90.00	179.59	12,605.0	-2,087.3	-314.6	2,102.6	0.00	0.00	0.00
14,800.0	90.00	179.59	12,605.0	-2,187.3	-313.8	2,202.4	0.00	0.00	0.00
14,900.0	90.00	179.59	12,605.0	-2,287.3	-313.1	2,302.1	0.00	0.00	0.00
15,000.0	90.00	179.59	12,605.0	-2,387.3	-312.4	2,401.9	0.00	0.00	0.00
15,100.0	90.00	179.59	12,605.0	-2,487.2	-311.7	2,501.7	0.00	0.00	0.00
15,200.0	90.00	179.59	12,605.0	-2,587.2	-311.0	2,601.4	0.00	0.00	0.00
15,300.0	90.00	179.59	12,605.0	-2,687.2	-310.2	2,701.2	0.00	0.00	0.00
15,400.0	90.00	179.59	12,605.0	-2,787.2	-309.5	2,801.0	0.00	0.00	0.00
15,500.0	90.00	179.59	12,605.0	-2,887.2	-308.8	2,900.7	0.00	0.00	0.00
15,600.0	90.00	179.59	12,605.0	-2,987.2	-308.1	3,000.5	0.00	0.00	0.00
15,700.0	90.00	179.59	12,605.0	-3,087.2	-307.4	3,100.3	0.00	0.00	0.00
15,800.0	90.00	179.59	12,605.0	-3,187.2	-306.6	3,200.0	0.00	0.00	0.00
15,900.0	90.00	179.59	12,605.0	-3,287.2	-305.9	3,299.8	0.00	0.00	0.00
16,000.0	90.00	179.59	12,605.0	-3,387.2	-305.2	3,399.6	0.00	0.00	0.00
16,100.0	90.00	179.59	12,605.0	-3,487.2	-304.5	3,499.3	0.00	0.00	0.00
16,200.0	90.00	179.59	12,605.0	-3,587.2	-303.8	3,599.1	0.00	0.00	0.00
16,300.0	90.00	179.59	12,605.0	-3,687.2	-303.0	3,698.9	0.00	0.00	0.00
16,400.0	90.00	179.59	12,605.0	-3,787.2	-302.3	3,798.6	0.00	0.00	0.00
16,500.0	90.00	179.59	12,605.0	-3,887.2	-301.6	3,898.4	0.00	0.00	0.00
16,600.0	90.00	179.59	12,605.0	-3,987.2	-300.9	3,998.2	0.00	0.00	0.00
16,700.0	90.00	179.59	12,605.0	-4,087.2	-300.2	4,097.9	0.00	0.00	0.00
16,800.0	90.00	179.59	12,605.0	-4,187.2	-299.4	4,197.7	0.00	0.00	0.00
16,900.0	90.00	179.59	12,605.0	-4,287.2	-298.7	4,297.5	0.00	0.00	0.00
17,000.0	90.00	179.59	12,605.0	-4,387.2	-298.0	4,397.2	0.00	0.00	0.00
17,100.0	90.00	179.59	12,605.0	-4,487.2	-297.3	4,497.0	0.00	0.00	0.00
17,200.0	90.00	179.59	12,605.0	-4,587.2	-296.6	4,596.7	0.00	0.00	0.00
17,300.0	90.00	179.59	12,605.0	-4,687.2	-295.8	4,696.5	0.00	0.00	0.00
17,400.0	90.00	179.59	12,605.0	-4,787.2	-295.1	4,796.3	0.00	0.00	0.00
17,416.8	90.00	179.59	12,605.0	-4,804.0	-295.0	4,813.0	0.00	0.00	0.00

PBHL(BkBear 36 ST #703H)



EOG Resources, Inc.

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #703H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3350.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3350.0usft
Site:	Black Bear 36 State	North Reference:	Grid
Well:	#703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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									
FTP(BkBear 36 ST #703	0.00	0.00	12,605.0	-80.0	-329.0	398,589.00	751,753.00	32° 5' 35.623 N	103° 31' 13.445 W
- plan misses target center by 38.1usft at 12701.7usft MD (12569.5 TVD, -93.6 N, -327.4 E)									
- Point									
PBHL(BkBear 36 ST #70	0.00	0.00	12,605.0	-4,804.0	-295.0	393,865.00	751,787.00	32° 4' 48.873 N	103° 31' 13.463 W
- plan hits target center									
- Point									

EOG RESOURCES, INC.
BLACK BEAR 36 STATE #703H

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

- Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator

- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

- H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
BLACK BEAR 36 STATE #703H

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.
- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- **Communication:**
Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
BLACK BEAR 36 STATE #703H

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office (432) 686-3600
---------------	-----------------------

Company Drilling Consultants:

Jett Dueitt	Cell (432) 230-4840
Blake Burney	

Drilling Engineer

Robert Brosig	Office (432) 686-3737
	Cell (432) 770-0705

Drilling Manager

Heath Work	Office (432) 686-6716
	Cell (903) 780-1179

Drilling Superintendent

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H&P Drilling

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H&P 415 Drilling Rig	Rig (432) 230-4840

Tool Pusher:

Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety

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