

OCD - HOBBS  
12/06/2017  
RECEIVED

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) 748-9720  
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

<sup>1</sup> API Number 30-025-44265	<sup>2</sup> Pool Code 98158	<sup>3</sup> Pool Name WC-025 G-09 S253236A; Upper Wolfcamp
<sup>4</sup> Property Code 313191	<sup>5</sup> Property Name GEM 36 STATE COM	
<sup>7</sup> OGRID No. 7377	<sup>8</sup> Operator Name EOG RESOURCES, INC.	
		<sup>6</sup> Well Number #707H
		<sup>9</sup> Elevation 3349'

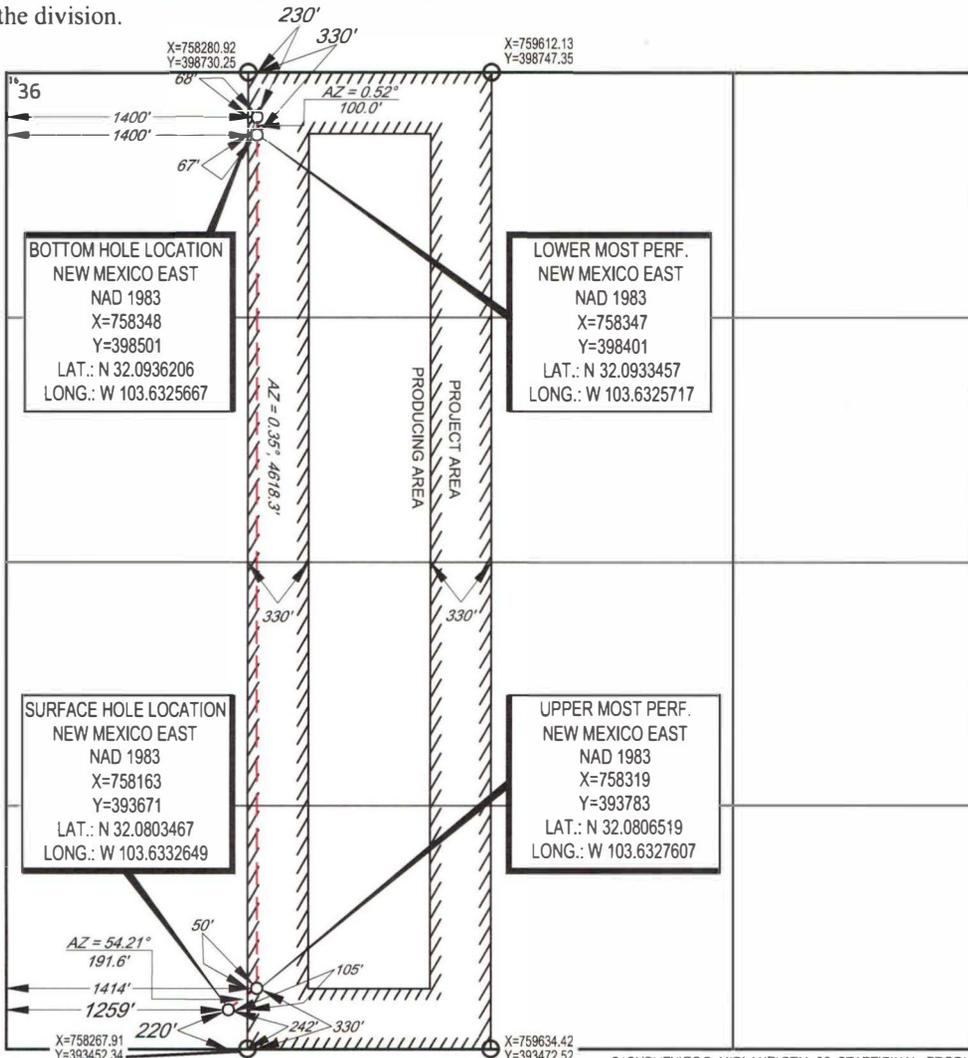
<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	36	25-S	32-E	-	220'	SOUTH	1259'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	36	25-S	32-E	-	230'	NORTH	1400'	WEST	LEA

<sup>12</sup> Dedicated Acres 163.39	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.



<sup>17</sup>OPERATOR 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 unleased 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* 12/07/17  
Signature Date

Stan Wagner  
Printed Name

E-mail Address

<sup>18</sup>SURVEYOR 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.

11/15/2017  
Date of Survey  
Signature and Seal of Professional Surveyor



Certificate Number

**Permit Information:**

Well Name: Gem 36 State Com No. 707H

OCD - HOBBS  
12/06/2017  
RECEIVED**Location:**

SL: 220' FSL &amp; 1259' FWL, Section 36, T-25-S, R-32-E, Lea Co., N.M.

BHL: 230' FNL &amp; 1400' FWL, Section 36, T-25-S, R-32-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
17.5"	0 - 810'	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' - 4,700'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 - 11,200'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0'-16,035'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

**Cement Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
810'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl <sub>2</sub> (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)
4,700'	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
11,200'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,200')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
16,035'	950	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,700')

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 810'	Fresh - Gel	8.6-8.8	28-34	N/c
810' - 4,700'	Brine	10.0-10.2	28-34	N/c
4,700' - 11,200'	Oil Base	8.7-9.4	58-68	N/c - 6
11,200' - 16,035' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

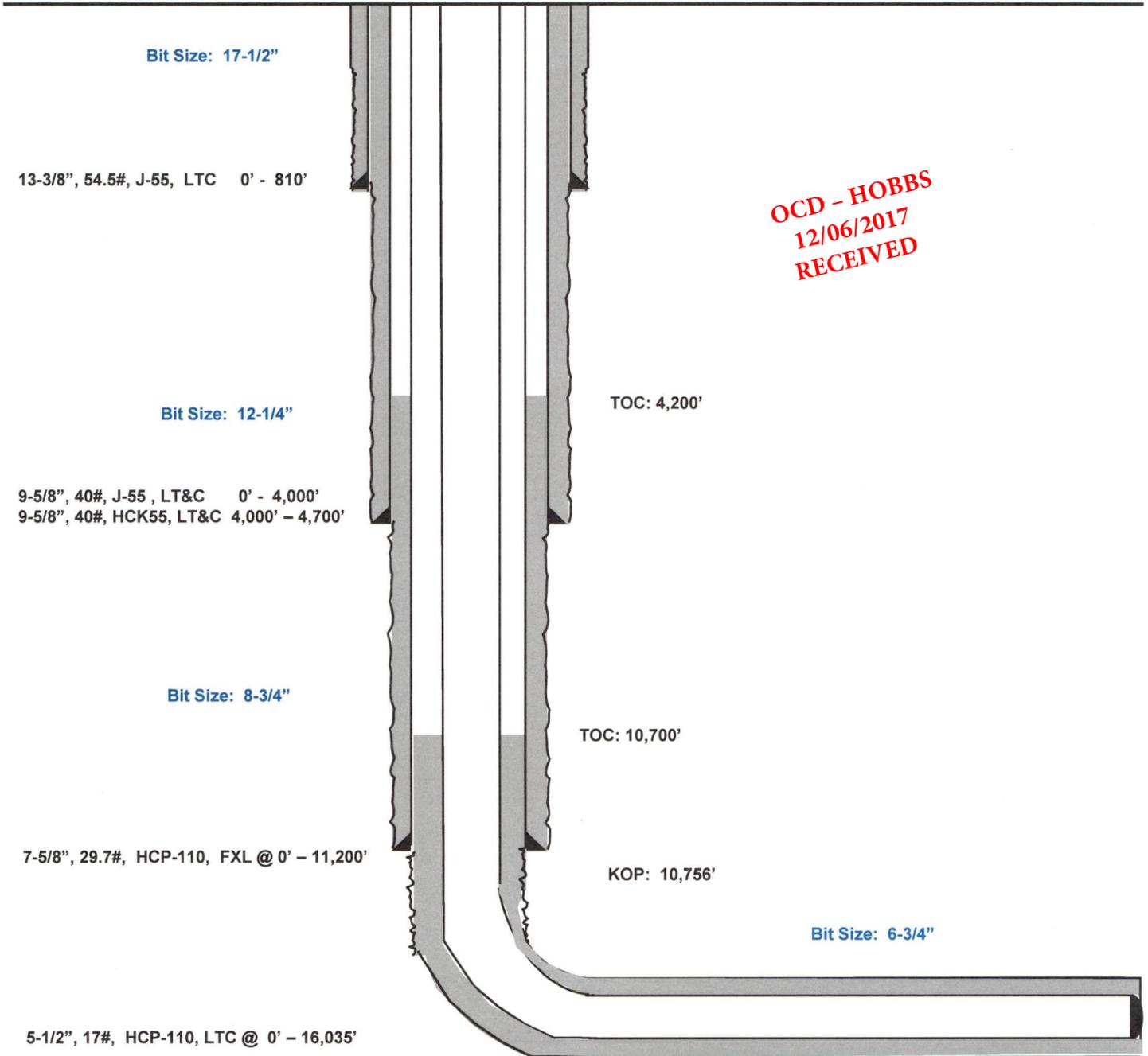
Gem 36 State Com #707H  
Lea County, New Mexico

220' FSL  
1259' FWL  
Section 36  
T-25-S, R-32-E

Proposed Wellbore

API: 30-025-\*\*\*\*\*

KB: 3,374'  
GL: 3,349'



Lateral: 16,035' MD, 11,241' TVD  
BH Location: 230' FNL & 1400' FWL  
Section 36  
T-25-S, R-32-E



Lea County, NM (NAD 83 NME)

Gem 36 State Com #707H

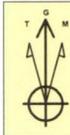
Plan #0.1

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: #707H

KB = 25 @ 3374.0usft 3349.0  
 Northing 858471.00 Easting 758163.00 Latitude 32° 4' 49.250 N Longitude 103° 37' 59.757 W



Azimuths to Grid North  
 True North: -0.37°  
 Magnetic North: 6.55°  
 Magnetic Field Strength: 47798.4nT  
 Dip Angle: 59.91°  
 Date: 12/6/2017  
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.55°  
 To convert a Magnetic Direction to a True Direction, Add 6.92° East  
 To convert a True Direction to a Grid Direction, Subtract 0.37°

SECTION DETAILS

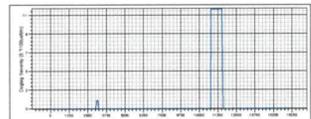
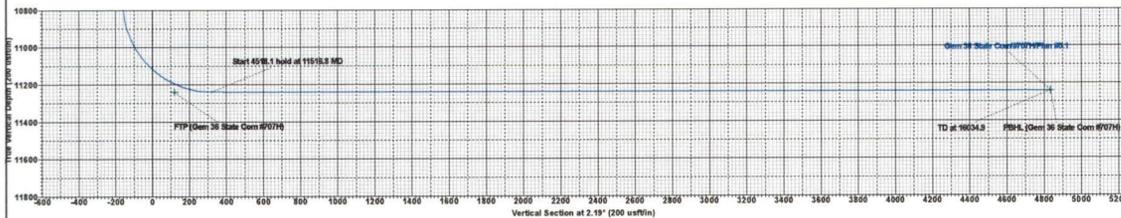
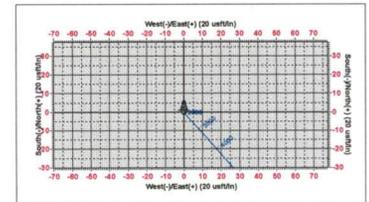
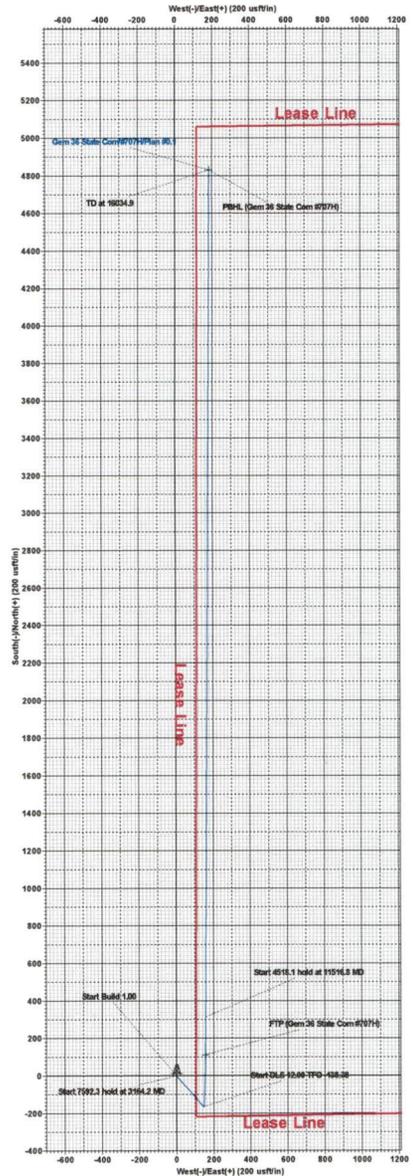
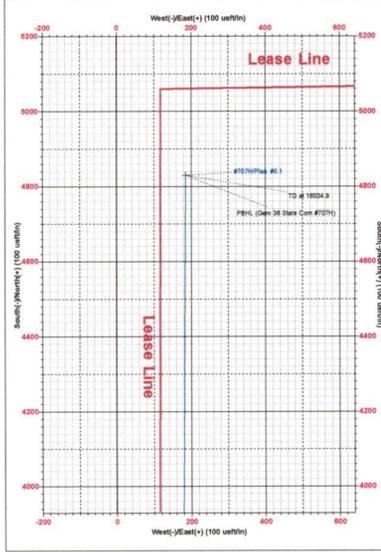
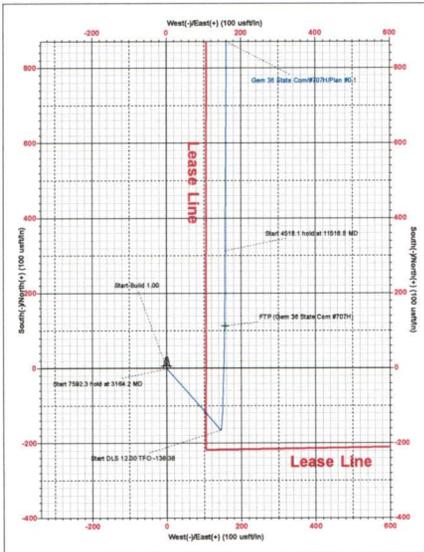
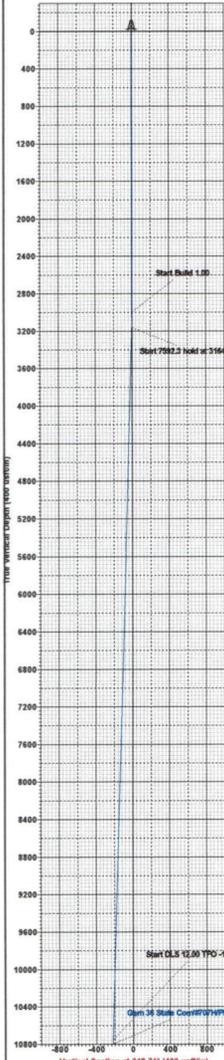
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0		
3	3164.2	1.64	138.74	3164.2	-1.8	1.8	1.00	138.74	-1.7		
4	10756.5	1.64	138.74	10753.4	-165.3	145.0	0.00	0.00	-159.6		
5	11518.8	90.00	0.35	11241.0	312.0	167.2	12.00	-138.38	317.8		
6	16034.9	90.00	0.35	11241.0	4830.0	185.0	0.00	0.00	4833.5	PBHL (Gem 36 State Com #707H)	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (Gem 36 State Com #707H)	11241.0	-4830.0	185.0	398501.00	758348.00
FTP (Gem 36 State Com #707H)	11241.0	112.0	156.0	393785.00	758319.00





## **EOG Resources - Midland**

Lea County, NM (NAD 83 NME)

Gem 36 State Com

#707H

OH

Plan: Plan #0.1

## **Standard Planning Report**

06 December, 2017

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #707H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3374.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3374.0usft
<b>Site:</b>	Gem 36 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#707H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Gem 36 State Com				
<b>Site Position:</b>		<b>Northing:</b>	393,686.00 usft	<b>Latitude:</b>	32° 4' 49.331 N
<b>From:</b>	Map	<b>Easting:</b>	759,213.00 usft	<b>Longitude:</b>	103° 37' 47.552 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	#707H					
<b>Well Position</b>	<b>+N/-S</b>	-15.0 usft	<b>Northing:</b>	393,671.00 usft	<b>Latitude:</b>	32° 4' 49.250 N
	<b>+E/-W</b>	-1,050.0 usft	<b>Easting:</b>	758,163.00 usft	<b>Longitude:</b>	103° 37' 59.757 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,349.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/6/2017	6.92	59.91	47,798.36041856

<b>Design</b>	Plan #0.1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>		<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
		0.0	0.0	0.0	2.19

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/6/2017			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	16,034.9 Plan #0.1 (OH)	MWD	MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
3,164.2	1.64	138.74	3,164.2	-1.8	1.6	1.00	1.00	0.00	138.74	
10,756.5	1.64	138.74	10,753.4	-165.3	145.0	0.00	0.00	0.00	0.00	
11,516.8	90.00	0.35	11,241.0	312.0	157.2	12.00	11.62	-18.20	-138.38	
16,034.9	90.00	0.35	11,241.0	4,830.0	185.0	0.00	0.00	0.00	0.00	PBHL (Gem 36 State)



Planning Report

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #707H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3374.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3374.0usft
<b>Site:</b>	Gem 36 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#707H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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	1.00	138.74	3,100.0	-0.7	0.6	-0.6	1.00	1.00	0.00
3,164.2	1.64	138.74	3,164.2	-1.8	1.6	-1.7	1.00	1.00	0.00
3,200.0	1.64	138.74	3,200.0	-2.5	2.2	-2.5	0.00	0.00	0.00
3,300.0	1.64	138.74	3,299.9	-4.7	4.1	-4.5	0.00	0.00	0.00
3,400.0	1.64	138.74	3,399.9	-6.8	6.0	-6.6	0.00	0.00	0.00
3,500.0	1.64	138.74	3,499.8	-9.0	7.9	-8.7	0.00	0.00	0.00
3,600.0	1.64	138.74	3,599.8	-11.2	9.8	-10.8	0.00	0.00	0.00
3,700.0	1.64	138.74	3,699.8	-13.3	11.7	-12.9	0.00	0.00	0.00
3,800.0	1.64	138.74	3,799.7	-15.5	13.6	-14.9	0.00	0.00	0.00
3,900.0	1.64	138.74	3,899.7	-17.6	15.5	-17.0	0.00	0.00	0.00
4,000.0	1.64	138.74	3,999.6	-19.8	17.3	-19.1	0.00	0.00	0.00
4,100.0	1.64	138.74	4,099.6	-21.9	19.2	-21.2	0.00	0.00	0.00
4,200.0	1.64	138.74	4,199.6	-24.1	21.1	-23.3	0.00	0.00	0.00
4,300.0	1.64	138.74	4,299.5	-26.2	23.0	-25.3	0.00	0.00	0.00
4,400.0	1.64	138.74	4,399.5	-28.4	24.9	-27.4	0.00	0.00	0.00
4,500.0	1.64	138.74	4,499.4	-30.5	26.8	-29.5	0.00	0.00	0.00
4,600.0	1.64	138.74	4,599.4	-32.7	28.7	-31.6	0.00	0.00	0.00
4,700.0	1.64	138.74	4,699.3	-34.8	30.6	-33.7	0.00	0.00	0.00
4,800.0	1.64	138.74	4,799.3	-37.0	32.5	-35.7	0.00	0.00	0.00
4,900.0	1.64	138.74	4,899.3	-39.2	34.4	-37.8	0.00	0.00	0.00
5,000.0	1.64	138.74	4,999.2	-41.3	36.2	-39.9	0.00	0.00	0.00
5,100.0	1.64	138.74	5,099.2	-43.5	38.1	-42.0	0.00	0.00	0.00
5,200.0	1.64	138.74	5,199.1	-45.6	40.0	-44.1	0.00	0.00	0.00



Planning Report

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #707H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3374.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3374.0usft
<b>Site:</b>	Gem 36 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#707H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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	1.64	138.74	5,299.1	-47.8	41.9	-46.1	0.00	0.00	0.00	
5,400.0	1.64	138.74	5,399.1	-49.9	43.8	-48.2	0.00	0.00	0.00	
5,500.0	1.64	138.74	5,499.0	-52.1	45.7	-50.3	0.00	0.00	0.00	
5,600.0	1.64	138.74	5,599.0	-54.2	47.6	-52.4	0.00	0.00	0.00	
5,700.0	1.64	138.74	5,698.9	-56.4	49.5	-54.5	0.00	0.00	0.00	
5,800.0	1.64	138.74	5,798.9	-58.5	51.4	-56.5	0.00	0.00	0.00	
5,900.0	1.64	138.74	5,898.9	-60.7	53.2	-58.6	0.00	0.00	0.00	
6,000.0	1.64	138.74	5,998.8	-62.9	55.1	-60.7	0.00	0.00	0.00	
6,100.0	1.64	138.74	6,098.8	-65.0	57.0	-62.8	0.00	0.00	0.00	
6,200.0	1.64	138.74	6,198.7	-67.2	58.9	-64.9	0.00	0.00	0.00	
6,300.0	1.64	138.74	6,298.7	-69.3	60.8	-66.9	0.00	0.00	0.00	
6,400.0	1.64	138.74	6,398.6	-71.5	62.7	-69.0	0.00	0.00	0.00	
6,500.0	1.64	138.74	6,498.6	-73.6	64.6	-71.1	0.00	0.00	0.00	
6,600.0	1.64	138.74	6,598.6	-75.8	66.5	-73.2	0.00	0.00	0.00	
6,700.0	1.64	138.74	6,698.5	-77.9	68.4	-75.3	0.00	0.00	0.00	
6,800.0	1.64	138.74	6,798.5	-80.1	70.3	-77.3	0.00	0.00	0.00	
6,900.0	1.64	138.74	6,898.4	-82.2	72.1	-79.4	0.00	0.00	0.00	
7,000.0	1.64	138.74	6,998.4	-84.4	74.0	-81.5	0.00	0.00	0.00	
7,100.0	1.64	138.74	7,098.4	-86.5	75.9	-83.6	0.00	0.00	0.00	
7,200.0	1.64	138.74	7,198.3	-88.7	77.8	-85.7	0.00	0.00	0.00	
7,300.0	1.64	138.74	7,298.3	-90.9	79.7	-87.7	0.00	0.00	0.00	
7,400.0	1.64	138.74	7,398.2	-93.0	81.6	-89.8	0.00	0.00	0.00	
7,500.0	1.64	138.74	7,498.2	-95.2	83.5	-91.9	0.00	0.00	0.00	
7,600.0	1.64	138.74	7,598.2	-97.3	85.4	-94.0	0.00	0.00	0.00	
7,700.0	1.64	138.74	7,698.1	-99.5	87.3	-96.1	0.00	0.00	0.00	
7,800.0	1.64	138.74	7,798.1	-101.6	89.1	-98.1	0.00	0.00	0.00	
7,900.0	1.64	138.74	7,898.0	-103.8	91.0	-100.2	0.00	0.00	0.00	
8,000.0	1.64	138.74	7,998.0	-105.9	92.9	-102.3	0.00	0.00	0.00	
8,100.0	1.64	138.74	8,098.0	-108.1	94.8	-104.4	0.00	0.00	0.00	
8,200.0	1.64	138.74	8,197.9	-110.2	96.7	-106.5	0.00	0.00	0.00	
8,300.0	1.64	138.74	8,297.9	-112.4	98.6	-108.5	0.00	0.00	0.00	
8,400.0	1.64	138.74	8,397.8	-114.5	100.5	-110.6	0.00	0.00	0.00	
8,500.0	1.64	138.74	8,497.8	-116.7	102.4	-112.7	0.00	0.00	0.00	
8,600.0	1.64	138.74	8,597.7	-118.9	104.3	-114.8	0.00	0.00	0.00	
8,700.0	1.64	138.74	8,697.7	-121.0	106.2	-116.9	0.00	0.00	0.00	
8,800.0	1.64	138.74	8,797.7	-123.2	108.0	-118.9	0.00	0.00	0.00	
8,900.0	1.64	138.74	8,897.6	-125.3	109.9	-121.0	0.00	0.00	0.00	
9,000.0	1.64	138.74	8,997.6	-127.5	111.8	-123.1	0.00	0.00	0.00	
9,100.0	1.64	138.74	9,097.5	-129.6	113.7	-125.2	0.00	0.00	0.00	
9,200.0	1.64	138.74	9,197.5	-131.8	115.6	-127.3	0.00	0.00	0.00	
9,300.0	1.64	138.74	9,297.5	-133.9	117.5	-129.3	0.00	0.00	0.00	
9,400.0	1.64	138.74	9,397.4	-136.1	119.4	-131.4	0.00	0.00	0.00	
9,500.0	1.64	138.74	9,497.4	-138.2	121.3	-133.5	0.00	0.00	0.00	
9,600.0	1.64	138.74	9,597.3	-140.4	123.2	-135.6	0.00	0.00	0.00	
9,700.0	1.64	138.74	9,697.3	-142.5	125.0	-137.7	0.00	0.00	0.00	
9,800.0	1.64	138.74	9,797.3	-144.7	126.9	-139.7	0.00	0.00	0.00	
9,900.0	1.64	138.74	9,897.2	-146.9	128.8	-141.8	0.00	0.00	0.00	
10,000.0	1.64	138.74	9,997.2	-149.0	130.7	-143.9	0.00	0.00	0.00	
10,100.0	1.64	138.74	10,097.1	-151.2	132.6	-146.0	0.00	0.00	0.00	
10,200.0	1.64	138.74	10,197.1	-153.3	134.5	-148.1	0.00	0.00	0.00	
10,300.0	1.64	138.74	10,297.0	-155.5	136.4	-150.1	0.00	0.00	0.00	
10,400.0	1.64	138.74	10,397.0	-157.6	138.3	-152.2	0.00	0.00	0.00	
10,500.0	1.64	138.74	10,497.0	-159.8	140.2	-154.3	0.00	0.00	0.00	
10,600.0	1.64	138.74	10,596.9	-161.9	142.1	-156.4	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #707H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3374.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3374.0usft
<b>Site:</b>	Gem 36 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#707H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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	1.64	138.74	10,696.9	-164.1	143.9	-158.5	0.00	0.00	0.00	
10,756.5	1.64	138.74	10,753.4	-165.3	145.0	-159.6	0.00	0.00	0.00	
10,775.0	1.47	48.16	10,771.9	-165.3	145.4	-159.7	12.00	-0.92	-490.53	
10,800.0	4.13	15.62	10,796.8	-164.3	145.8	-158.6	12.00	10.65	-130.17	
10,825.0	7.07	9.18	10,821.7	-161.9	146.3	-156.2	12.00	11.75	-25.77	
10,850.0	10.05	6.52	10,846.4	-158.2	146.8	-152.5	12.00	11.90	-10.63	
10,875.0	13.03	5.07	10,870.9	-153.2	147.3	-147.5	12.00	11.94	-5.80	
10,900.0	16.02	4.15	10,895.1	-147.0	147.8	-141.2	12.00	11.97	-3.67	
10,925.0	19.02	3.52	10,918.9	-139.5	148.3	-133.7	12.00	11.98	-2.54	
10,950.0	22.01	3.05	10,942.4	-130.7	148.8	-124.9	12.00	11.98	-1.87	
10,975.0	25.01	2.69	10,965.3	-120.7	149.3	-114.9	12.00	11.99	-1.44	
11,000.0	28.01	2.40	10,987.7	-109.6	149.8	-103.8	12.00	11.99	-1.15	
11,025.0	31.01	2.17	11,009.4	-97.3	150.3	-91.5	12.00	11.99	-0.94	
11,050.0	34.00	1.97	11,030.5	-83.9	150.8	-78.0	12.00	11.99	-0.79	
11,075.0	37.00	1.80	11,050.8	-69.4	151.3	-63.5	12.00	11.99	-0.68	
11,100.0	40.00	1.65	11,070.4	-53.8	151.7	-48.0	12.00	11.99	-0.59	
11,125.0	43.00	1.52	11,089.1	-37.3	152.2	-31.4	12.00	12.00	-0.52	
11,150.0	46.00	1.41	11,107.0	-19.7	152.6	-13.9	12.00	12.00	-0.47	
11,175.0	49.00	1.30	11,123.8	-1.3	153.1	4.5	12.00	12.00	-0.42	
11,200.0	52.00	1.20	11,139.7	18.0	153.5	23.8	12.00	12.00	-0.38	
11,225.0	55.00	1.12	11,154.6	38.1	153.9	43.9	12.00	12.00	-0.35	
11,250.0	57.99	1.03	11,168.4	58.9	154.3	64.8	12.00	12.00	-0.33	
11,275.0	60.99	0.96	11,181.1	80.4	154.7	86.3	12.00	12.00	-0.31	
11,300.0	63.99	0.88	11,192.6	102.6	155.0	108.5	12.00	12.00	-0.29	
11,325.0	66.99	0.82	11,203.0	125.3	155.4	131.2	12.00	12.00	-0.28	
11,350.0	69.99	0.75	11,212.2	148.6	155.7	154.4	12.00	12.00	-0.26	
11,375.0	72.99	0.69	11,220.1	172.3	156.0	178.1	12.00	12.00	-0.25	
11,400.0	75.99	0.62	11,226.8	196.4	156.2	202.2	12.00	12.00	-0.25	
11,425.0	78.99	0.56	11,232.2	220.8	156.5	226.6	12.00	12.00	-0.24	
11,450.0	81.99	0.51	11,236.3	245.4	156.7	251.3	12.00	12.00	-0.23	
11,475.0	84.99	0.45	11,239.2	270.3	156.9	276.1	12.00	12.00	-0.23	
11,500.0	87.99	0.39	11,240.7	295.2	157.1	301.0	12.00	12.00	-0.23	
11,516.8	90.00	0.35	11,241.0	312.0	157.2	317.8	12.00	12.00	-0.23	
11,600.0	90.00	0.35	11,241.0	395.2	157.7	401.0	0.00	0.00	0.00	
11,700.0	90.00	0.35	11,241.0	495.2	158.4	500.9	0.00	0.00	0.00	
11,800.0	90.00	0.35	11,241.0	595.2	159.0	600.9	0.00	0.00	0.00	
11,900.0	90.00	0.35	11,241.0	695.2	159.6	700.8	0.00	0.00	0.00	
12,000.0	90.00	0.35	11,241.0	795.2	160.2	800.8	0.00	0.00	0.00	
12,100.0	90.00	0.35	11,241.0	895.2	160.8	900.7	0.00	0.00	0.00	
12,200.0	90.00	0.35	11,241.0	995.2	161.4	1,000.7	0.00	0.00	0.00	
12,300.0	90.00	0.35	11,241.0	1,095.2	162.0	1,100.6	0.00	0.00	0.00	
12,400.0	90.00	0.35	11,241.0	1,195.2	162.7	1,200.6	0.00	0.00	0.00	
12,500.0	90.00	0.35	11,241.0	1,295.2	163.3	1,300.5	0.00	0.00	0.00	
12,600.0	90.00	0.35	11,241.0	1,395.2	163.9	1,400.5	0.00	0.00	0.00	
12,700.0	90.00	0.35	11,241.0	1,495.2	164.5	1,500.4	0.00	0.00	0.00	
12,800.0	90.00	0.35	11,241.0	1,595.2	165.1	1,600.3	0.00	0.00	0.00	
12,900.0	90.00	0.35	11,241.0	1,695.2	165.7	1,700.3	0.00	0.00	0.00	
13,000.0	90.00	0.35	11,241.0	1,795.2	166.3	1,800.2	0.00	0.00	0.00	
13,100.0	90.00	0.35	11,241.0	1,895.2	167.0	1,900.2	0.00	0.00	0.00	
13,200.0	90.00	0.35	11,241.0	1,995.2	167.6	2,000.1	0.00	0.00	0.00	
13,300.0	90.00	0.35	11,241.0	2,095.2	168.2	2,100.1	0.00	0.00	0.00	
13,400.0	90.00	0.35	11,241.0	2,195.2	168.8	2,200.0	0.00	0.00	0.00	
13,500.0	90.00	0.35	11,241.0	2,295.2	169.4	2,300.0	0.00	0.00	0.00	
13,600.0	90.00	0.35	11,241.0	2,395.2	170.0	2,399.9	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #707H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3374.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3374.0usft
<b>Site:</b>	Gem 36 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#707H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
13,700.0	90.00	0.35	11,241.0	2,495.2	170.6	2,499.9	0.00	0.00	0.00	
13,800.0	90.00	0.35	11,241.0	2,595.2	171.3	2,599.8	0.00	0.00	0.00	
13,900.0	90.00	0.35	11,241.0	2,695.2	171.9	2,699.8	0.00	0.00	0.00	
14,000.0	90.00	0.35	11,241.0	2,795.2	172.5	2,799.7	0.00	0.00	0.00	
14,100.0	90.00	0.35	11,241.0	2,895.2	173.1	2,899.7	0.00	0.00	0.00	
14,200.0	90.00	0.35	11,241.0	2,995.2	173.7	2,999.6	0.00	0.00	0.00	
14,300.0	90.00	0.35	11,241.0	3,095.2	174.3	3,099.6	0.00	0.00	0.00	
14,400.0	90.00	0.35	11,241.0	3,195.2	175.0	3,199.5	0.00	0.00	0.00	
14,500.0	90.00	0.35	11,241.0	3,295.2	175.6	3,299.5	0.00	0.00	0.00	
14,600.0	90.00	0.35	11,241.0	3,395.2	176.2	3,399.4	0.00	0.00	0.00	
14,700.0	90.00	0.35	11,241.0	3,495.2	176.8	3,499.4	0.00	0.00	0.00	
14,800.0	90.00	0.35	11,241.0	3,595.2	177.4	3,599.3	0.00	0.00	0.00	
14,900.0	90.00	0.35	11,241.0	3,695.2	178.0	3,699.3	0.00	0.00	0.00	
15,000.0	90.00	0.35	11,241.0	3,795.2	178.6	3,799.2	0.00	0.00	0.00	
15,100.0	90.00	0.35	11,241.0	3,895.2	179.3	3,899.2	0.00	0.00	0.00	
15,200.0	90.00	0.35	11,241.0	3,995.2	179.9	3,999.1	0.00	0.00	0.00	
15,300.0	90.00	0.35	11,241.0	4,095.1	180.5	4,099.1	0.00	0.00	0.00	
15,400.0	90.00	0.35	11,241.0	4,195.1	181.1	4,199.0	0.00	0.00	0.00	
15,500.0	90.00	0.35	11,241.0	4,295.1	181.7	4,299.0	0.00	0.00	0.00	
15,600.0	90.00	0.35	11,241.0	4,395.1	182.3	4,398.9	0.00	0.00	0.00	
15,700.0	90.00	0.35	11,241.0	4,495.1	182.9	4,498.9	0.00	0.00	0.00	
15,800.0	90.00	0.35	11,241.0	4,595.1	183.6	4,598.8	0.00	0.00	0.00	
15,900.0	90.00	0.35	11,241.0	4,695.1	184.2	4,698.7	0.00	0.00	0.00	
16,000.0	90.00	0.35	11,241.0	4,795.1	184.8	4,798.7	0.00	0.00	0.00	
16,034.9	90.00	0.35	11,241.0	4,830.0	185.0	4,833.5	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
PBHL (Gem 36 State Co - hit/miss target - Shape - Point	0.00	0.00	11,241.0	4,830.0	185.0	398,501.00	758,348.00	32° 5' 37.033 N	103° 37' 57.242 W
FTP (Gem 36 State Corr - plan misses target center by 40.2usft at 11326.5usft MD (11203.6 TVD, 126.7 N, 155.4 E) - Point	0.00	0.00	11,241.0	112.0	156.0	393,783.00	758,319.00	32° 4' 50.348 N	103° 37' 57.935 W

OCD - HOBBS  
12/06/2017  
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## Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H<sub>2</sub>S 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/Escape 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

- H<sub>2</sub>S 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.**  
**GEM 36 STATE COM #707H**

- **Mud program:**  
The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H<sub>2</sub>S 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 H<sub>2</sub>S service.
  
- **Communication:**  
Communication will be via cell phones and land lines where available.

**EOG RESOURCES, INC.  
GEM 36 STATE COM #707H**

**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:**

David Dominique Cell (985) 518-5839  
Mike Vann Cell (817) 980-5507

**Drilling Engineer**

Steve Munsell Office (432) 686-3609  
Cell (432) 894-1256

**Drilling Manager**

Floyd Hernandez Office (432) 686-3716  
Cell (817) 682-4569

**Drilling Superintendent**

Jason Fitzgerald Office (432) 848-9029  
Cell (318) 347-3916

**H&P Drilling**

H&P Drilling Office (432) 563-5757  
H&P 651 Drilling Rig Rig (903) 509-7131

**Tool Pusher:**

Johnathan Craig Cell (817) 760-6374  
Brad Garrett

**Safety**

Brian Chandler (HSE Manager) Office (432) 686-3695  
Cell (817) 239-0251