

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.

HOBBS OCD

MAR 19 2018

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM19858
2. Name of Operator EOG RESOURCES INCORPORATED Contact: STAN WAGNER E-Mail: stan_wagner@eogresources.com		6. If Indian, Allottee or Tribe Name
3a. Address MIDLAND, TX 79702	3b. Phone No. (include area code) Ph: 432-686-3689	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 35 T24S R33E NWNW 0500FNL 0686FWL 32.179848 N Lat, 103.549068 W Lon		8. Well Name and No. HAWK 35 FED 702H
		9. API Well No. 30-025-42405-00-X1
		10. Field and Pool or Exploratory Area RED HILLS-BONE SPRING, NORTH
		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 APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recompleat 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 recompleat 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 casing, TVD, BHL, and well number.

Change casing as attached.

Change TVD to 12444' Upper Wolfcamp

Change BHL to 230' FNL & 830' FWL 26-24S-33E

Change well name/number to Hawk 35 Fed 702H

Additionally, EOG requests the option to pre-set surface casing.

Carlsbad Field Office
OCD Hobbs

14. I hereby certify that the foregoing is true and correct. Electronic Submission #396984 verified by the BLM Well Information System For EOG RESOURCES INCORPORATED, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 12/15/2017 (18PP0352SE)	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 12/05/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>CHARLES NIMMER</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>12/20/2017</u>
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 <u>Hobbs</u>

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 ****

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., Santa 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.
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 42405	² Pool Code 98092	³ Pool Name WC-025 G-09 S243336I; Upper Wolfcamp
⁴ Property Code 314178	⁵ Property Name HAWK 35 FED	⁶ Well Number #702H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3508'

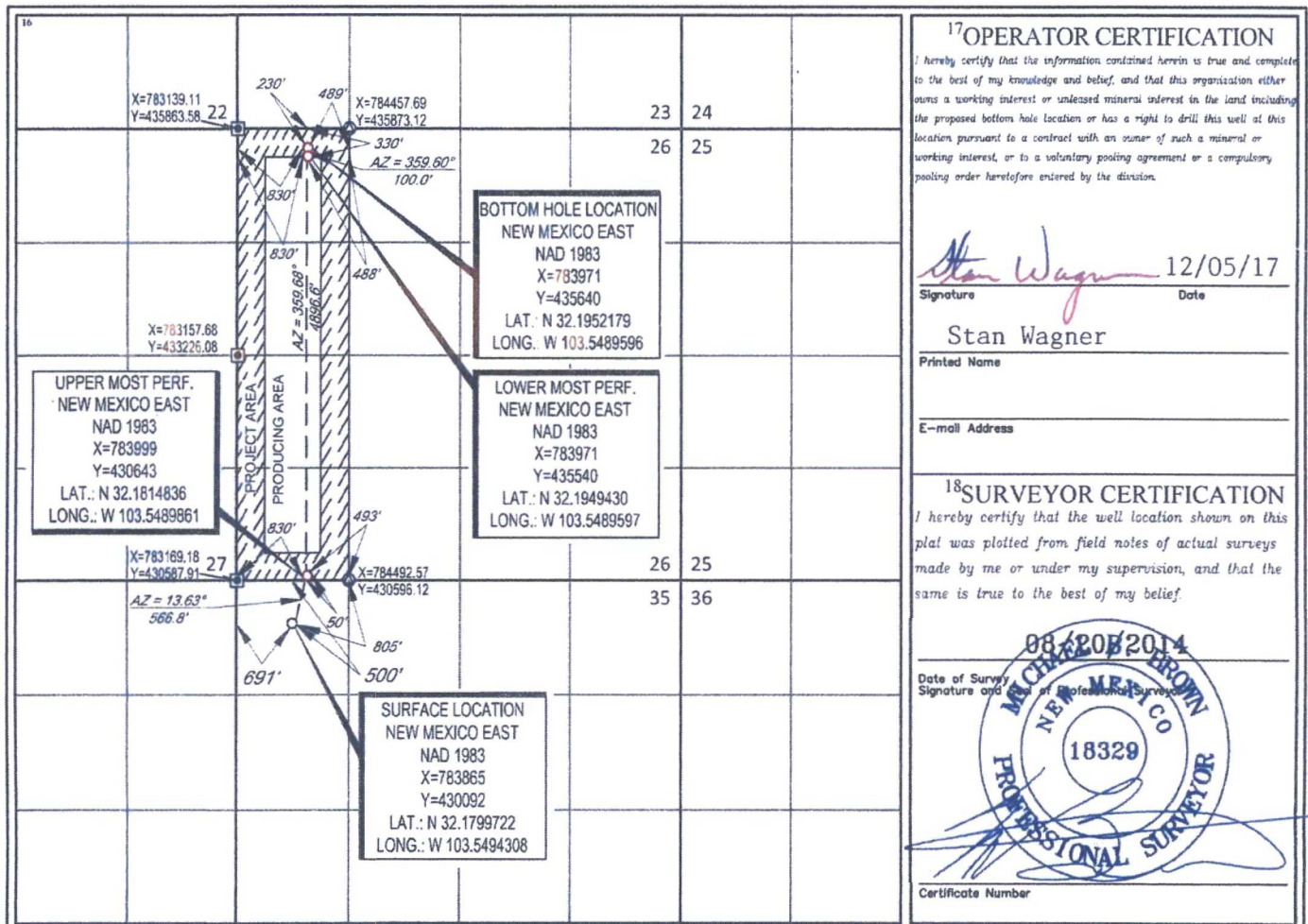
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	24-S	33-E	-	500'	NORTH	691'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	26	24-S	33-E	-	230'	NORTH	830'	WEST	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.



EOG RESOURCES, INC.
HAWK 35 FED NO. 702H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,200'
Top of Salt	1,689'
Base of Salt	4,954'
Base Anhydrite	5,204'
Lamar	5,204'
Bell Canyon	5,250'
Cherry Canyon	6,239'
Brushy Canyon	7,676'
Bone Spring Lime	9,186'
1 st Bone Spring Sand	9,480'
2 nd Bone Spring Shale	10,433'
2 nd Bone Spring Sand	10,864'
3 rd Bone Spring Carb	11,328'
3 rd Bone Spring Sand	11,905'
Wolfcamp	12,308'
TD	12,444'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,239'	Oil
Brushy Canyon	7,676'	Oil
1 st Bone Spring Sand	9,480'	Oil
2 nd Bone Spring Shale	10,433'	Oil
2 nd Bone Spring Sand	10,864'	Oil
3 rd Bone Spring Carb	11,328'	Oil
3 rd Bone Spring Sand	11,905'	Oil
Wolfcamp	12,308'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 1,300' and circulating cement back to surface.

**EOG RESOURCES, INC.
HAWK 35 FED NO. 702H**

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 – 1,300'	13.375"	54.5#	J55	LTC	1.125	1.25	1.60
12.25"	0 – 4,100'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,100' – 5,100'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 – 11,500'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 11,000'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	11,000' -17,797'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,300'	600	13.5	1.73	9.13	Lead: 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	6.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
9-5/8" 5,100'	1780	12.7	2.20	11.64	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	200	16.0	1.12	4.75	Tail: Class C + 0.13% C-20
7-5/8" 11,500'	340	11.5	2.72	15.70	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,600')
	210	16.0	1.12	4.74	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
5-1/2" 17,797'	950	14.1	1.26	5.80	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,000')

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

EOG RESOURCES, INC.
HAWK 35 FED NO. 702H

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (10,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5,000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 11,500'	Oil Base	8.7-9.4	58-68	N/c - 6
11,500' – 17,797' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

EOG RESOURCES, INC.
HAWK 35 FED NO. 702H

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9059 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

EOG RESOURCES, INC.
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10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

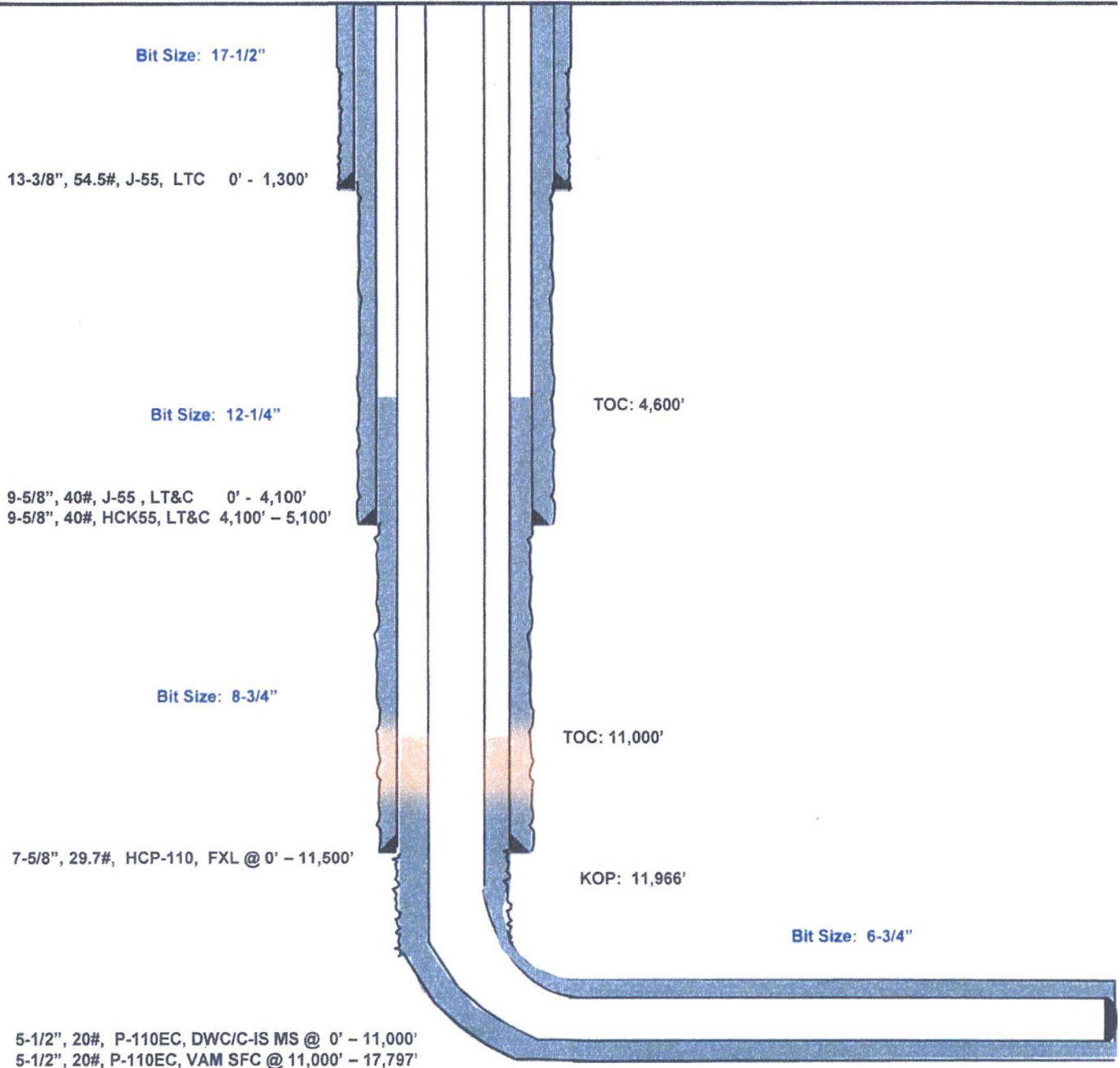
Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

Hawk 35 Fed #702H
Lea County, New Mexico

500' FNL
691' FWL
Section 35
T-24-S, R-33-E

Proposed Wellbore
Revised 12/5/17
API: 30-025-42405

KB: 3,533'
GL: 3,508'



Lateral: 17,797' MD, 12,444' TVD
Upper Most Perf:
50' FSL & 830' FWL Sec. 26
Lower Most Perf:
330' FNL & 830' FWL Sec. 26
BH Location: 230' FNL & 830' FWL
Section 26
T-24-S, R-33-E



Lea County, NM (NAD 83 NME)

Hawk 35 Fed #702H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 80
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



To convert a Magnetic Declination to a Grid Declination, Add 4.47°
To convert a True Declination to a Grid Declination, Subtract 4.47°

WELL DETAILS: #702H
3595.0
North
420992.00
Easting
783885.00
32° 19' 47.88" N
103° 32' 57.55" W

SECTION DETAILS

SPC	NO	INC	ASL	TVD	N-S	E-W	DRG	TRG	VSCT	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0		
2	11781.8	80.00	10.35	13444.0	488.0	85.0	12.00	15.30	47.3		
3	13247.8	90.00	249.48	13444.0	898.1	131.5	2.00	-46.00	-1000.4		
4	11781.8	80.00	249.48	13444.0	898.0	104.0	0.00	0.00	8682.0	PRD (Lease 35 Fed #702H)	

CLIENT DETAILS

No existing data is available

WELLBORE TARGET DETAILS (NAD 83 COORDINATES)

Name
PRD (Lease 35 Fed #702H)
Physical (35 Fed #702H)

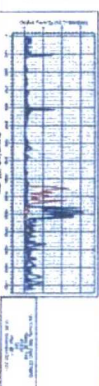
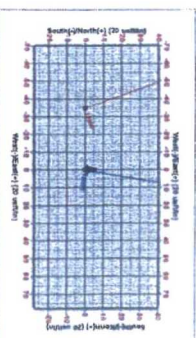
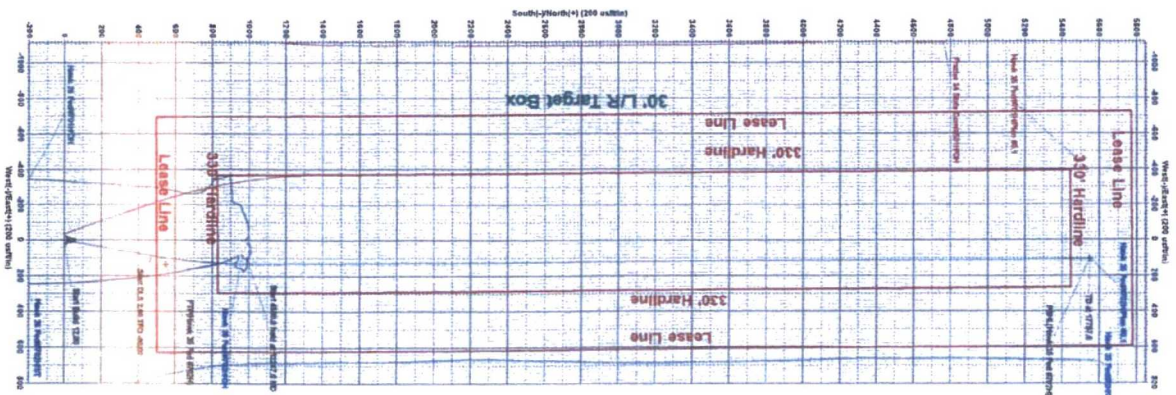
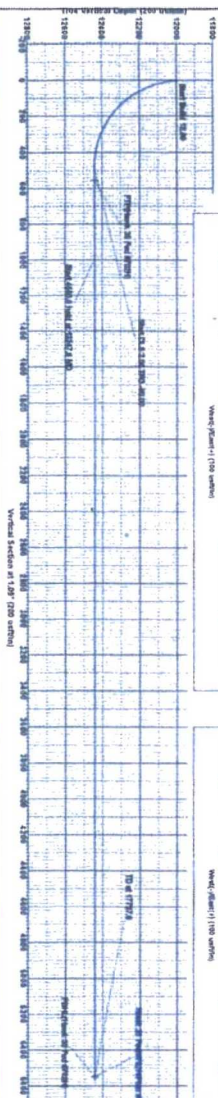
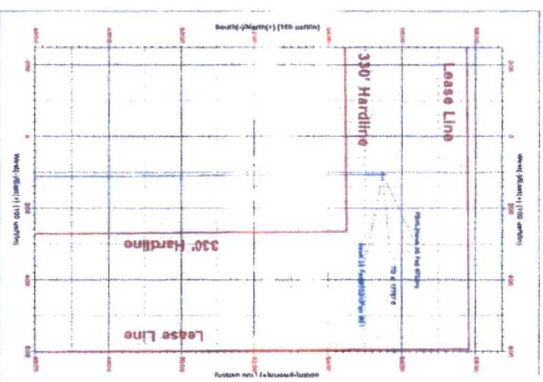
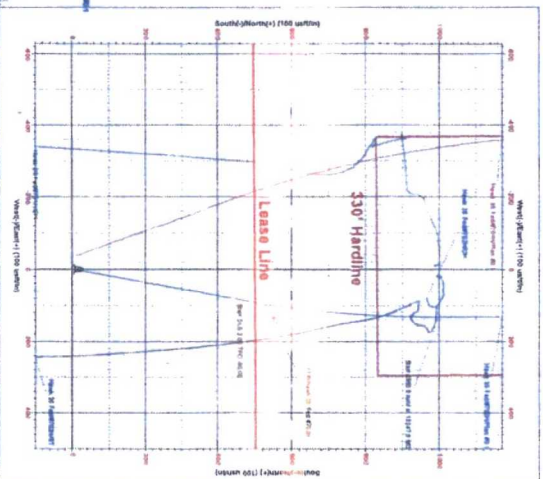
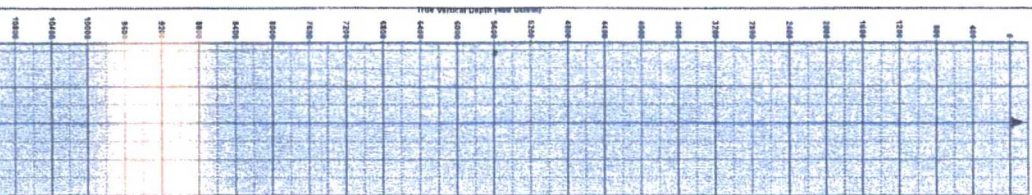
TVD
13444.0
13444.0

N-S
5648.0
501.0

E-W
104.0
134.0

Nothing
420992.00
783885.00

Easting
783885.00
783885.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hawk 35 Fed

#702H

OH

Plan: Plan #0.1

Standard Planning Report

05 December, 2017

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #702H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3533.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3533.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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

Site	Hawk 35 Fed				
Site Position:		Northing:	430,092.00 usft	Latitude:	32° 10' 47.900 N
From:	Map	Easting:	783,830.00 usft	Longitude:	103° 32' 58.362 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	#702H					
Well Position	+N-S	0.0 usft	Northing:	430,092.00 usft	Latitude:	32° 10' 47.898 N
	+E/-W	35.0 usft	Easting:	783,865.00 usft	Longitude:	103° 32' 57.955 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,508.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/5/2017	6.89	60.02	47,865.52470772

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	1.09

Plan Survey Tool Program	Date 12/5/2017			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17.797.6 Plan #0.1 (OH)	MWD	
			MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
11,966.5	0.00	0.00	11,966.5	0.0	0.0	0.00	0.00	0.00	0.00	
12,716.5	90.00	10.30	12,444.0	469.8	85.4	12.00	12.00	0.00	10.30	
13,247.6	90.00	359.68	12,444.0	998.1	131.5	2.00	0.00	-2.00	-90.00	
17,797.6	90.00	359.68	12,444.0	5,548.0	106.0	0.00	0.00	0.00	0.00	PBHL(Hawk 35 Fed #



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hawk 35 Fed
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
 TVD Reference: KB = 25 @ 3533.0usft
 MD Reference: KB = 25 @ 3533.0usft
 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	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hawk 35 Fed
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
 TVD Reference: KB = 25 @ 3533.0usft
 MD Reference: KB = 25 @ 3533.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hawk 35 Fed
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
 TVD Reference: KB = 25 @ 3533.0usft
 MD Reference: KB = 25 @ 3533.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,800.0	0.00	0.00	10,800.0	0.0	0.0	0.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,900.0	0.0	0.0	0.0	0.00	0.00	0.00
11,000.0	0.00	0.00	11,000.0	0.0	0.0	0.0	0.00	0.00	0.00
11,100.0	0.00	0.00	11,100.0	0.0	0.0	0.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,200.0	0.0	0.0	0.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,300.0	0.0	0.0	0.0	0.00	0.00	0.00
11,400.0	0.00	0.00	11,400.0	0.0	0.0	0.0	0.00	0.00	0.00
11,500.0	0.00	0.00	11,500.0	0.0	0.0	0.0	0.00	0.00	0.00
11,600.0	0.00	0.00	11,600.0	0.0	0.0	0.0	0.00	0.00	0.00
11,700.0	0.00	0.00	11,700.0	0.0	0.0	0.0	0.00	0.00	0.00
11,800.0	0.00	0.00	11,800.0	0.0	0.0	0.0	0.00	0.00	0.00
11,900.0	0.00	0.00	11,900.0	0.0	0.0	0.0	0.00	0.00	0.00
11,966.5	0.00	0.00	11,966.5	0.0	0.0	0.0	0.00	0.00	0.00
11,975.0	1.02	10.30	11,975.0	0.1	0.0	0.1	12.00	12.00	0.00
12,000.0	4.02	10.30	12,000.0	1.2	0.2	1.2	12.00	12.00	0.00
12,025.0	7.02	10.30	12,024.9	3.5	0.6	3.5	12.00	12.00	0.00
12,050.0	10.02	10.30	12,049.6	7.2	1.3	7.2	12.00	12.00	0.00
12,075.0	13.02	10.30	12,074.1	12.1	2.2	12.1	12.00	12.00	0.00
12,100.0	16.02	10.30	12,098.3	18.2	3.3	18.3	12.00	12.00	0.00
12,125.0	19.02	10.30	12,122.1	25.6	4.7	25.7	12.00	12.00	0.00
12,150.0	22.02	10.30	12,145.5	34.3	6.2	34.4	12.00	12.00	0.00
12,175.0	25.02	10.30	12,168.4	44.1	8.0	44.2	12.00	12.00	0.00
12,200.0	28.02	10.30	12,190.8	55.1	10.0	55.2	12.00	12.00	0.00
12,225.0	31.02	10.30	12,212.6	67.2	12.2	67.4	12.00	12.00	0.00
12,250.0	34.02	10.30	12,233.6	80.4	14.6	80.7	12.00	12.00	0.00
12,275.0	37.02	10.30	12,254.0	94.7	17.2	95.0	12.00	12.00	0.00
12,300.0	40.02	10.30	12,273.5	110.0	20.0	110.4	12.00	12.00	0.00
12,325.0	43.02	10.30	12,292.3	126.3	23.0	126.7	12.00	12.00	0.00
12,350.0	46.02	10.30	12,310.1	143.6	26.1	144.0	12.00	12.00	0.00
12,375.0	49.02	10.30	12,327.0	161.7	29.4	162.2	12.00	12.00	0.00
12,400.0	52.02	10.30	12,342.8	180.7	32.8	181.3	12.00	12.00	0.00
12,425.0	55.02	10.30	12,357.7	200.5	36.4	201.1	12.00	12.00	0.00
12,450.0	58.02	10.30	12,371.5	221.0	40.2	221.7	12.00	12.00	0.00
12,475.0	61.02	10.30	12,384.2	242.2	44.0	243.0	12.00	12.00	0.00
12,500.0	64.02	10.30	12,395.7	264.0	48.0	264.9	12.00	12.00	0.00
12,525.0	67.02	10.30	12,406.1	286.4	52.0	287.3	12.00	12.00	0.00
12,550.0	70.02	10.30	12,415.2	309.3	56.2	310.3	12.00	12.00	0.00
12,575.0	73.02	10.30	12,423.2	332.6	60.4	333.7	12.00	12.00	0.00
12,600.0	76.02	10.30	12,429.8	356.3	64.7	357.5	12.00	12.00	0.00
12,625.0	79.02	10.30	12,435.2	380.3	69.1	381.5	12.00	12.00	0.00
12,650.0	82.02	10.30	12,439.3	404.6	73.5	405.9	12.00	12.00	0.00
12,675.0	85.02	10.30	12,442.2	429.0	78.0	430.4	12.00	12.00	0.00
12,700.0	88.02	10.30	12,443.7	453.5	82.4	455.0	12.00	12.00	0.00
12,716.5	90.00	10.30	12,444.0	469.8	85.4	471.3	12.00	12.00	0.00
12,800.0	90.00	8.63	12,444.0	552.1	99.1	553.9	2.00	0.00	-2.00
12,900.0	90.00	6.63	12,444.0	651.2	112.4	653.3	2.00	0.00	-2.00
13,000.0	90.00	4.63	12,444.0	750.8	122.2	753.0	2.00	0.00	-2.00
13,100.0	90.00	2.63	12,444.0	850.5	128.5	852.8	2.00	0.00	-2.00
13,200.0	90.00	0.63	12,444.0	950.5	131.4	952.8	2.00	0.00	-2.00
13,247.6	90.00	359.68	12,444.0	998.1	131.5	1,000.4	2.00	0.00	-2.00
13,300.0	90.00	359.68	12,444.0	1,050.5	131.2	1,052.8	0.00	0.00	0.00
13,400.0	90.00	359.68	12,444.0	1,150.5	130.6	1,152.8	0.00	0.00	0.00
13,500.0	90.00	359.68	12,444.0	1,250.5	130.1	1,252.8	0.00	0.00	0.00
13,600.0	90.00	359.68	12,444.0	1,350.5	129.5	1,352.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hawk 35 Fed
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

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

Well #702H
 KB = 25 @ 3533.0usft
 KB = 25 @ 3533.0usft
 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)
13,700.0	90.00	359.68	12,444.0	1,450.5	129.0	1,452.7	0.00	0.00	0.00
13,800.0	90.00	359.68	12,444.0	1,550.5	128.4	1,552.7	0.00	0.00	0.00
13,900.0	90.00	359.68	12,444.0	1,650.5	127.8	1,652.6	0.00	0.00	0.00
14,000.0	90.00	359.68	12,444.0	1,750.5	127.3	1,752.6	0.00	0.00	0.00
14,100.0	90.00	359.68	12,444.0	1,850.5	126.7	1,852.6	0.00	0.00	0.00
14,200.0	90.00	359.68	12,444.0	1,950.5	126.2	1,952.5	0.00	0.00	0.00
14,300.0	90.00	359.68	12,444.0	2,050.5	125.6	2,052.5	0.00	0.00	0.00
14,400.0	90.00	359.68	12,444.0	2,150.5	125.0	2,152.5	0.00	0.00	0.00
14,500.0	90.00	359.68	12,444.0	2,250.5	124.5	2,252.4	0.00	0.00	0.00
14,600.0	90.00	359.68	12,444.0	2,350.5	123.9	2,352.4	0.00	0.00	0.00
14,700.0	90.00	359.68	12,444.0	2,450.5	123.4	2,452.4	0.00	0.00	0.00
14,800.0	90.00	359.68	12,444.0	2,550.5	122.8	2,552.4	0.00	0.00	0.00
14,900.0	90.00	359.68	12,444.0	2,650.5	122.2	2,652.3	0.00	0.00	0.00
15,000.0	90.00	359.68	12,444.0	2,750.5	121.7	2,752.3	0.00	0.00	0.00
15,100.0	90.00	359.68	12,444.0	2,850.5	121.1	2,852.3	0.00	0.00	0.00
15,200.0	90.00	359.68	12,444.0	2,950.5	120.6	2,952.2	0.00	0.00	0.00
15,300.0	90.00	359.68	12,444.0	3,050.5	120.0	3,052.2	0.00	0.00	0.00
15,400.0	90.00	359.68	12,444.0	3,150.5	119.4	3,152.2	0.00	0.00	0.00
15,500.0	90.00	359.68	12,444.0	3,250.5	118.9	3,252.1	0.00	0.00	0.00
15,600.0	90.00	359.68	12,444.0	3,350.5	118.3	3,352.1	0.00	0.00	0.00
15,700.0	90.00	359.68	12,444.0	3,450.5	117.8	3,452.1	0.00	0.00	0.00
15,800.0	90.00	359.68	12,444.0	3,550.5	117.2	3,552.1	0.00	0.00	0.00
15,900.0	90.00	359.68	12,444.0	3,650.5	116.6	3,652.0	0.00	0.00	0.00
16,000.0	90.00	359.68	12,444.0	3,750.5	116.1	3,752.0	0.00	0.00	0.00
16,100.0	90.00	359.68	12,444.0	3,850.5	115.5	3,852.0	0.00	0.00	0.00
16,200.0	90.00	359.68	12,444.0	3,950.5	115.0	3,951.9	0.00	0.00	0.00
16,300.0	90.00	359.68	12,444.0	4,050.5	114.4	4,051.9	0.00	0.00	0.00
16,400.0	90.00	359.68	12,444.0	4,150.5	113.8	4,151.9	0.00	0.00	0.00
16,500.0	90.00	359.68	12,444.0	4,250.4	113.3	4,251.8	0.00	0.00	0.00
16,600.0	90.00	359.68	12,444.0	4,350.4	112.7	4,351.8	0.00	0.00	0.00
16,700.0	90.00	359.68	12,444.0	4,450.4	112.1	4,451.8	0.00	0.00	0.00
16,800.0	90.00	359.68	12,444.0	4,550.4	111.6	4,551.7	0.00	0.00	0.00
16,900.0	90.00	359.68	12,444.0	4,650.4	111.0	4,651.7	0.00	0.00	0.00
17,000.0	90.00	359.68	12,444.0	4,750.4	110.5	4,751.7	0.00	0.00	0.00
17,100.0	90.00	359.68	12,444.0	4,850.4	109.9	4,851.7	0.00	0.00	0.00
17,200.0	90.00	359.68	12,444.0	4,950.4	109.3	4,951.6	0.00	0.00	0.00
17,300.0	90.00	359.68	12,444.0	5,050.4	108.8	5,051.6	0.00	0.00	0.00
17,400.0	90.00	359.68	12,444.0	5,150.4	108.2	5,151.6	0.00	0.00	0.00
17,500.0	90.00	359.68	12,444.0	5,250.4	107.7	5,251.5	0.00	0.00	0.00
17,600.0	90.00	359.68	12,444.0	5,350.4	107.1	5,351.5	0.00	0.00	0.00
17,700.0	90.00	359.68	12,444.0	5,450.4	106.5	5,451.5	0.00	0.00	0.00
17,797.6	90.00	359.68	12,444.0	5,548.0	106.0	5,549.0	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #702H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3533.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3533.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#702H	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(Hawk 35 Fed #702)	0.00	0.00	12,444.0	551.0	134.0	430,643.00	783,999.00	32° 10' 53.340 N	103° 32' 56.349 W
- plan misses target center by 34.7usft at 12803.5usft MD (12444.0 TVD, 555.6 N, 99.6 E)									
- Point									
PBHL(Hawk 35 Fed #70)	0.00	0.00	12,444.0	5,548.0	106.0	435,640.00	783,971.00	32° 11' 42.788 N	103° 32' 56.251 W
- plan hits target center									
- Point									