

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. <b>30 015 48760</b>	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory  11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State			
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No of acres in lease	
17. Spacing Unit dedicated to this well			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start*	
23. Estimated duration			
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval 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. Conditions of approval, if any, are attached.			
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.			

(Continued on page 2)

\*(Instructions on page 2)



Approval Date: 06/18/2021

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 Rd., 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, New Mexico 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-015- 48760</b>	Pool Code <b>97860</b>	Pool Name <b>JENNINGS; BONE SPRING, WEST</b>
Property Code	Property Name <b>PHANTOM DRAW 20 FED UNIT</b>	Well Number <b>303H</b>
OGRID No. <b>7377</b>	Operator Name <b>EOG RESOURCES, INC.</b>	Elevation <b>3183'</b>

## Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>M</b>	<b>20</b>	<b>26 S</b>	<b>31 E</b>		<b>528</b>	<b>SOUTH</b>	<b>325</b>	<b>WEST</b>	<b>EDDY</b>

## Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>D</b>	<b>20</b>	<b>26 S</b>	<b>31 E</b>		<b>100</b>	<b>NORTH</b>	<b>629</b>	<b>WEST</b>	<b>EDDY</b>
Dedicated Acres <b>320.00</b>	Joint or Infill	Consolidated Code	Order No.						

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.

	<p><b>OPERATOR CERTIFICATION</b></p> <p>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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Jayna K. Hobby</i> 8/24/20 Signature Date</p> <p>Jayna K. Hobby Print Name</p> <p>Jayna_Hobby@eogresources.com E-mail Address</p>
	<p><b>SURVEYORS CERTIFICATION</b></p> <p>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 and correct to the best of my belief.</p> <p>NOVEMBER 11, 2019 Date of Survey</p> <p>Signature and Seal of Professional Surveyor <i>Casey Wayne Faircloth</i></p> <p><b>CASEY WAYNE FAIRCLOTH</b> NEW MEXICO 21051 PROFESSIONAL SURVEYOR</p> <p>Job No.: EOG.190022 CASEY WAYNE FAIRCLOTH, N.M.P.L.S. Certificate Number 21051</p>

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### **Section 1 – Plan Description** **Effective May 25, 2021**

**I. Operator:** EOG Resources, Inc. **OGRID:** 7377 **Date:** 07/22/2021

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
PHANTOM DRAW 20 FED UNIT 303H		M-20-26S-31E	528' FSL & 325' FWL	+/- 1000	+/- 3500	+/- 3000

**IV. Central Delivery Point Name:** Magnolia 15 Fed Com CTB [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
PHANTOM DRAW 20 FED UNIT 303H		5/1/23	5/16/23	7/16/23	8/16/23	9/16/23

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

**Section 2 – Enhanced Plan****EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Craig Richardson</i>
Printed Name: Craig Richardson
Title: Regulatory Specialist
E-mail Address: craig_richardson@eogresources.com
Date: 7/22/2021
Phone: (432) 425.7736
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## Natural Gas Management Plan Items VI-VIII

### **VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

### **VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.**

#### Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

#### Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

#### Production Operations

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

#### Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.

- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

Measurement & Estimation

- All volume that is flared or vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses will be installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

**VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.**

- During downhole well maintenance, EOG will use best management practices to vent as minimally as possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.



**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

**1. GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	1,075'
Tamarisk Anhydrite	1,117'
Top of Salt	1,330'
Base of Salt	3,720'
Lamar	3,920'
Bell Canyon	3,947'
Cherry Canyon	4,848'
Brushy Canyon	6,188'
Bone Spring Lime	7,857'
Leonard Shale	7,944'
1 <sup>st</sup> Bone Spring Sand	8,828'
TD	8,894'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	4,848'	Oil
Brushy Canyon	6,188'	Oil
Leonard Shale	7,944'	Oil
1 <sup>st</sup> Bone Spring Sand	8,828'	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 1,145' and circulating cement back to surface.

**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

**4. CASING PROGRAM - NEW**

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' – 1,145'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' – 3,820'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 9,201'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60
8.5"	9,201' – 13,898'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 12-1/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 12-1/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" 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.

**Cementing Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /sk	Slurry Description
1,145'	500	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	160	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 945')
3,820'	560	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	250	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 3,060')
13,898'	520	11.0	3.21	Lead: Class C + 3% CaCl <sub>2</sub> + 3% Microbond (TOC @ 3,320')
	1,350	14.4	1.2	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 8,451')

**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

<b>Additive</b>	<b>Purpose</b>
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Cement integrity tests will be performed immediately following plug bump.

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.

**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 (5,000-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.

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

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.

Pipe rams and 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.

**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

**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 – 1,145'	Fresh - Gel	8.6-8.8	28-34	N/c
1,145' – 3,820'	Brine	8.6-8.8	28-34	N/c
3,820' – 13,898'	Oil Base	8.8-9.5	58-68	N/c - 6

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) H<sub>2</sub>S 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 159 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4,394 psig and a maximum anticipated surface pressure of 2,437 psig (based on 9.5 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 6,188' to TD.

**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

**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 13-3/8" surface casing, a 13-3/8" 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 Cameron 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. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

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.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

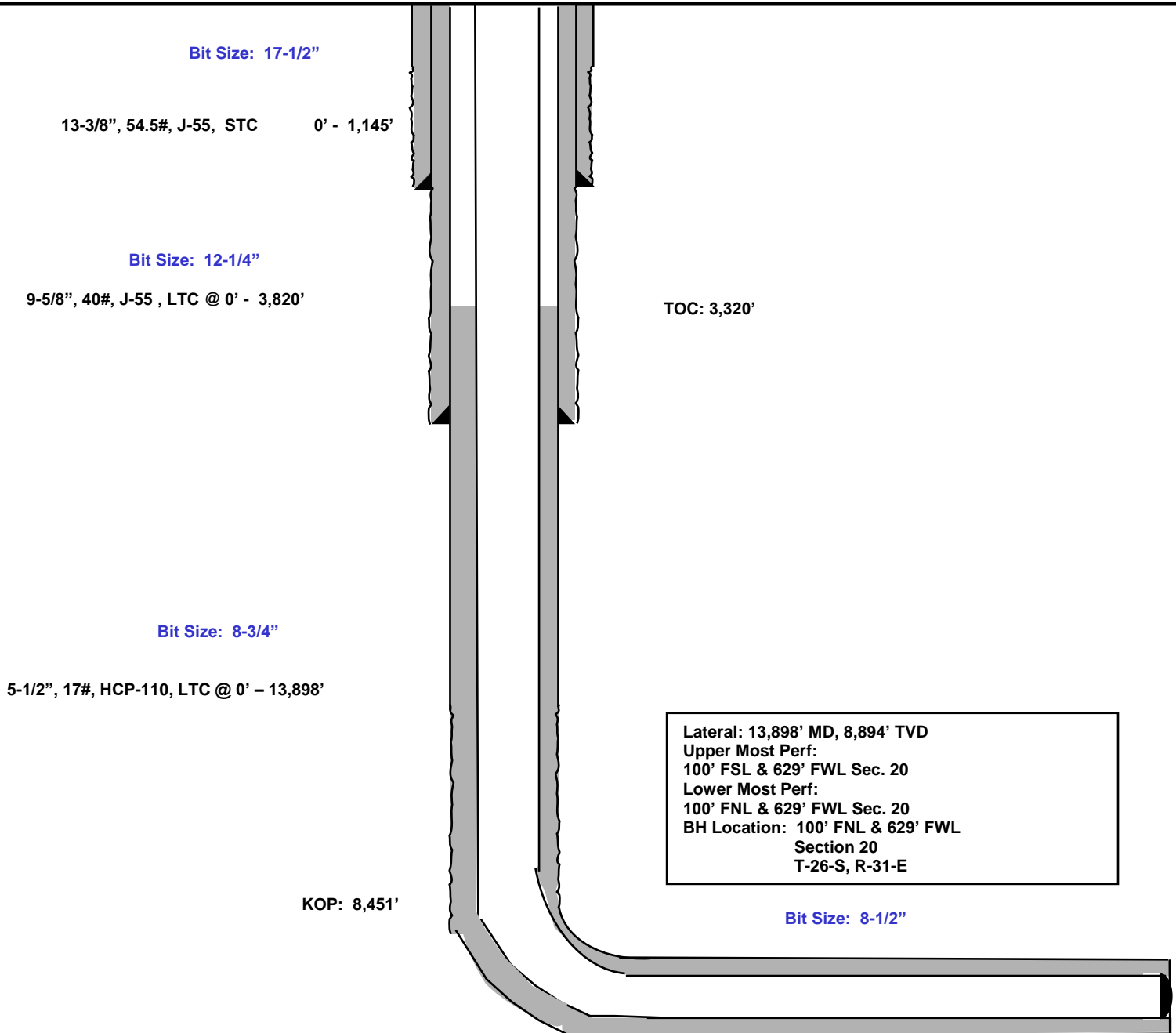
EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H

528' FSL  
325' FWL  
Section 20  
T-26-S, R-31-E

Proposed Wellbore

KB: 3,208'  
GL: 3,183'

API: 30-015-\*\*\*\*\*





## **EOG Resources - Midland**

**Eddy County, NM (NAD 83 NME)**

**Phantom Draw 20 Fed Unit**

**#303H**

**OH**

**Plan: Plan #0.1 RT**

## **Standard Planning Report**

**09 July, 2020**



## EOG Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well #303H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	kb = 25' @ 3208.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 25' @ 3208.0usft
<b>Site:</b>	Phantom Draw 20 Fed Unit	<b>North Reference:</b>	Grid
<b>Well:</b>	#303H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

<b>Project</b>	Eddy 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		

Site	Phantom Draw 20 Fed Unit					
Site Position:		Northing:	371,925.00 usft	Latitude:	32° 1' 16.875 N	
From:	Map	Easting:	708,555.00 usft	Longitude:	103° 47' 37.607 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.29

Well	#303H					
Well Position	+N/-S	307.0 usft	Northing:	372,232.00 usft	Latitude:	32° 1' 20.127 N
	+E/-W	-4,376.0 usft	Easting:	704,179.00 usft	Longitude:	103° 48' 28.419 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,183.0 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>
	IGRF2020	7/8/2020	6.75	59.71	47,448.95072021

<b>Design</b>	Plan #0.1 RT			
<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	3.30

<b>Plan Survey Tool Program</b>	<b>Date</b>	7/9/2020		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	13,897.5 Plan #0.1 RT (OH)	EOG MWD+IFR1	
			MWD + IFR1	

<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	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,655.8	7.12	147.23	1,654.9	-18.6	11.9	2.00	2.00	0.00	147.23	
5,878.5	7.12	147.23	5,845.1	-458.4	295.1	0.00	0.00	0.00	0.00	
6,234.4	0.00	0.01	6,200.0	-477.0	307.0	2.00	-2.00	0.00	180.00	
8,450.9	0.00	0.01	8,416.5	-477.0	307.0	0.00	0.00	0.00	0.00	KOP(Phantom Draw 2
8,671.3	26.46	0.00	8,629.2	-427.0	307.0	12.00	12.00	0.00	0.00	FTP(Phantom Draw 2
9,200.8	90.00	359.59	8,893.9	0.5	304.9	12.00	12.00	-0.08	-0.46	
13,897.5	90.00	359.59	8,894.0	4,697.0	271.0	0.00	0.00	0.00	0.00	PBHL(Phantom Draw





## EOG Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well #303H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	kb = 25' @ 3208.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 25' @ 3208.0usft
<b>Site:</b>	Phantom Draw 20 Fed Unit	<b>North Reference:</b>	Grid
<b>Well:</b>	#303H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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	2.00	147.23	1,400.0	-1.5	0.9	-1.4	2.00	2.00	0.00
1,500.0	4.00	147.23	1,499.8	-5.9	3.8	-5.6	2.00	2.00	0.00
1,600.0	6.00	147.23	1,599.5	-13.2	8.5	-12.7	2.00	2.00	0.00
1,655.8	7.12	147.23	1,654.9	-18.6	11.9	-17.8	2.00	2.00	0.00
1,700.0	7.12	147.23	1,698.7	-23.2	14.9	-22.3	0.00	0.00	0.00
1,800.0	7.12	147.23	1,798.0	-33.6	21.6	-32.3	0.00	0.00	0.00
1,900.0	7.12	147.23	1,897.2	-44.0	28.3	-42.3	0.00	0.00	0.00
2,000.0	7.12	147.23	1,996.4	-54.4	35.0	-52.3	0.00	0.00	0.00
2,100.0	7.12	147.23	2,095.7	-64.8	41.7	-62.3	0.00	0.00	0.00
2,200.0	7.12	147.23	2,194.9	-75.2	48.4	-72.3	0.00	0.00	0.00
2,300.0	7.12	147.23	2,294.1	-85.7	55.1	-82.3	0.00	0.00	0.00
2,400.0	7.12	147.23	2,393.4	-96.1	61.8	-92.4	0.00	0.00	0.00
2,500.0	7.12	147.23	2,492.6	-106.5	68.5	-102.4	0.00	0.00	0.00
2,600.0	7.12	147.23	2,591.8	-116.9	75.2	-112.4	0.00	0.00	0.00
2,700.0	7.12	147.23	2,691.0	-127.3	82.0	-122.4	0.00	0.00	0.00
2,800.0	7.12	147.23	2,790.3	-137.7	88.7	-132.4	0.00	0.00	0.00
2,900.0	7.12	147.23	2,889.5	-148.2	95.4	-142.4	0.00	0.00	0.00
3,000.0	7.12	147.23	2,988.7	-158.6	102.1	-152.4	0.00	0.00	0.00
3,100.0	7.12	147.23	3,088.0	-169.0	108.8	-162.5	0.00	0.00	0.00
3,200.0	7.12	147.23	3,187.2	-179.4	115.5	-172.5	0.00	0.00	0.00
3,300.0	7.12	147.23	3,286.4	-189.8	122.2	-182.5	0.00	0.00	0.00
3,400.0	7.12	147.23	3,385.7	-200.3	128.9	-192.5	0.00	0.00	0.00
3,500.0	7.12	147.23	3,484.9	-210.7	135.6	-202.5	0.00	0.00	0.00
3,600.0	7.12	147.23	3,584.1	-221.1	142.3	-212.5	0.00	0.00	0.00
3,700.0	7.12	147.23	3,683.3	-231.5	149.0	-222.5	0.00	0.00	0.00
3,800.0	7.12	147.23	3,782.6	-241.9	155.7	-232.5	0.00	0.00	0.00
3,900.0	7.12	147.23	3,881.8	-252.3	162.4	-242.6	0.00	0.00	0.00
4,000.0	7.12	147.23	3,981.0	-262.8	169.1	-252.6	0.00	0.00	0.00
4,100.0	7.12	147.23	4,080.3	-273.2	175.8	-262.6	0.00	0.00	0.00
4,200.0	7.12	147.23	4,179.5	-283.6	182.5	-272.6	0.00	0.00	0.00
4,300.0	7.12	147.23	4,278.7	-294.0	189.2	-282.6	0.00	0.00	0.00
4,400.0	7.12	147.23	4,377.9	-304.4	195.9	-292.6	0.00	0.00	0.00
4,500.0	7.12	147.23	4,477.2	-314.8	202.6	-302.6	0.00	0.00	0.00
4,600.0	7.12	147.23	4,576.4	-325.3	209.3	-312.7	0.00	0.00	0.00
4,700.0	7.12	147.23	4,675.6	-335.7	216.0	-322.7	0.00	0.00	0.00
4,800.0	7.12	147.23	4,774.9	-346.1	222.7	-332.7	0.00	0.00	0.00
4,900.0	7.12	147.23	4,874.1	-356.5	229.5	-342.7	0.00	0.00	0.00
5,000.0	7.12	147.23	4,973.3	-366.9	236.2	-352.7	0.00	0.00	0.00
5,100.0	7.12	147.23	5,072.6	-377.3	242.9	-362.7	0.00	0.00	0.00
5,200.0	7.12	147.23	5,171.8	-387.8	249.6	-372.7	0.00	0.00	0.00

## EOG Resources

## Planning Report



<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well #303H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	kb = 25' @ 3208.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 25' @ 3208.0usft
<b>Site:</b>	Phantom Draw 20 Fed Unit	<b>North Reference:</b>	Grid
<b>Well:</b>	#303H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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	7.12	147.23	5,271.0	-398.2	256.3	-382.8	0.00	0.00	0.00
5,400.0	7.12	147.23	5,370.2	-408.6	263.0	-392.8	0.00	0.00	0.00
5,500.0	7.12	147.23	5,469.5	-419.0	269.7	-402.8	0.00	0.00	0.00
5,600.0	7.12	147.23	5,568.7	-429.4	276.4	-412.8	0.00	0.00	0.00
5,700.0	7.12	147.23	5,667.9	-439.8	283.1	-422.8	0.00	0.00	0.00
5,800.0	7.12	147.23	5,767.2	-450.3	289.8	-432.8	0.00	0.00	0.00
5,878.5	7.12	147.23	5,845.1	-458.4	295.1	-440.7	0.00	0.00	0.00
5,900.0	6.69	147.23	5,866.4	-460.6	296.5	-442.8	2.00	-2.00	0.00
6,000.0	4.69	147.23	5,965.9	-468.9	301.8	-450.8	2.00	-2.00	0.00
6,100.0	2.69	147.23	6,065.7	-474.4	305.3	-456.0	2.00	-2.00	0.00
6,200.0	0.69	147.23	6,165.6	-476.8	306.9	-458.4	2.00	-2.00	0.00
6,234.4	0.00	0.01	6,200.0	-477.0	307.0	-458.5	2.00	-2.00	0.00
6,300.0	0.00	0.00	6,265.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,365.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,465.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,565.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,665.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,765.6	-477.0	307.0	-458.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,865.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,965.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,065.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,165.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,265.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,365.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,465.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,565.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,665.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,765.6	-477.0	307.0	-458.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,865.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,965.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,065.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,165.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,265.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,365.6	-477.0	307.0	-458.5	0.00	0.00	0.00
8,450.9	0.00	0.01	8,416.5	-477.0	307.0	-458.5	0.00	0.00	0.00
8,475.0	2.90	0.00	8,440.6	-476.4	307.0	-457.9	12.00	12.00	0.00
8,500.0	5.90	0.00	8,465.6	-474.5	307.0	-456.0	12.00	12.00	0.00
8,525.0	8.90	0.00	8,490.3	-471.3	307.0	-452.8	12.00	12.00	0.00
8,550.0	11.90	0.00	8,514.9	-466.7	307.0	-448.3	12.00	12.00	0.00
8,575.0	14.90	0.00	8,539.2	-460.9	307.0	-442.5	12.00	12.00	0.00
8,600.0	17.90	0.00	8,563.2	-453.9	307.0	-435.5	12.00	12.00	0.00
8,625.0	20.90	0.00	8,586.8	-445.6	307.0	-427.2	12.00	12.00	0.00
8,650.0	23.90	0.00	8,609.9	-436.1	307.0	-417.7	12.00	12.00	0.00
8,671.3	26.46	0.00	8,629.2	-427.0	307.0	-408.6	12.00	12.00	0.00
8,675.0	26.90	359.99	8,632.5	-425.3	307.0	-407.0	12.00	12.00	-0.21
8,700.0	29.90	359.94	8,654.5	-413.5	307.0	-395.1	12.00	12.00	-0.19
8,725.0	32.90	359.90	8,675.8	-400.4	307.0	-382.1	12.00	12.00	-0.16
8,750.0	35.90	359.87	8,696.5	-386.3	306.9	-368.0	12.00	12.00	-0.14
8,775.0	38.90	359.84	8,716.3	-371.1	306.9	-352.8	12.00	12.00	-0.12
8,800.0	41.90	359.82	8,735.3	-354.9	306.9	-336.7	12.00	12.00	-0.10
8,825.0	44.90	359.79	8,753.5	-337.7	306.8	-319.5	12.00	12.00	-0.09
8,850.0	47.90	359.77	8,770.7	-319.6	306.7	-301.4	12.00	12.00	-0.08
8,875.0	50.90	359.75	8,787.0	-300.7	306.7	-282.5	12.00	12.00	-0.07
8,900.0	53.90	359.74	8,802.3	-280.9	306.6	-262.7	12.00	12.00	-0.07

## EOG Resources

## Planning Report



<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well #303H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	kb = 25' @ 3208.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 25' @ 3208.0usft
<b>Site:</b>	Phantom Draw 20 Fed Unit	<b>North Reference:</b>	Grid
<b>Well:</b>	#303H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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)	
8,925.0	56.90	359.72	8,816.5	-260.3	306.5	-242.2	12.00	12.00	-0.06	
8,950.0	59.90	359.71	8,829.6	-239.0	306.4	-221.0	12.00	12.00	-0.06	
8,975.0	62.90	359.69	8,841.5	-217.0	306.2	-199.0	12.00	12.00	-0.06	
9,000.0	65.90	359.68	8,852.3	-194.5	306.1	-176.6	12.00	12.00	-0.05	
9,025.0	68.90	359.67	8,861.9	-171.4	306.0	-153.5	12.00	12.00	-0.05	
9,050.0	71.90	359.65	8,870.3	-147.9	305.9	-130.0	12.00	12.00	-0.05	
9,075.0	74.90	359.64	8,877.5	-123.9	305.7	-106.1	12.00	12.00	-0.05	
9,100.0	77.90	359.63	8,883.3	-99.6	305.6	-81.9	12.00	12.00	-0.05	
9,125.0	80.90	359.62	8,887.9	-75.1	305.4	-57.3	12.00	12.00	-0.04	
9,150.0	83.90	359.61	8,891.2	-50.3	305.2	-32.6	12.00	12.00	-0.04	
9,175.0	86.90	359.60	8,893.2	-25.4	305.1	-7.8	12.00	12.00	-0.04	
9,200.8	90.00	359.59	8,893.9	0.5	304.9	18.0	12.00	12.00	-0.04	
9,300.0	90.00	359.59	8,893.9	99.6	304.2	117.0	0.00	0.00	0.00	
9,400.0	90.00	359.59	8,893.9	199.6	303.4	216.8	0.00	0.00	0.00	
9,500.0	90.00	359.59	8,893.9	299.6	302.7	316.6	0.00	0.00	0.00	
9,600.0	90.00	359.59	8,894.0	399.6	302.0	416.3	0.00	0.00	0.00	
9,700.0	90.00	359.59	8,894.0	499.6	301.3	516.1	0.00	0.00	0.00	
9,800.0	90.00	359.59	8,894.0	599.6	300.5	615.9	0.00	0.00	0.00	
9,900.0	90.00	359.59	8,894.0	699.6	299.8	715.7	0.00	0.00	0.00	
10,000.0	90.00	359.59	8,894.0	799.6	299.1	815.5	0.00	0.00	0.00	
10,100.0	90.00	359.59	8,894.0	899.6	298.4	915.3	0.00	0.00	0.00	
10,200.0	90.00	359.59	8,894.0	999.6	297.7	1,015.1	0.00	0.00	0.00	
10,300.0	90.00	359.59	8,894.0	1,099.6	296.9	1,114.9	0.00	0.00	0.00	
10,400.0	90.00	359.59	8,894.0	1,199.6	296.2	1,214.7	0.00	0.00	0.00	
10,500.0	90.00	359.59	8,894.0	1,299.6	295.5	1,314.4	0.00	0.00	0.00	
10,600.0	90.00	359.59	8,894.0	1,399.6	294.8	1,414.2	0.00	0.00	0.00	
10,700.0	90.00	359.59	8,894.0	1,499.6	294.1	1,514.0	0.00	0.00	0.00	
10,800.0	90.00	359.59	8,894.0	1,599.6	293.3	1,613.8	0.00	0.00	0.00	
10,900.0	90.00	359.59	8,894.0	1,699.6	292.6	1,713.6	0.00	0.00	0.00	
11,000.0	90.00	359.59	8,894.0	1,799.6	291.9	1,813.4	0.00	0.00	0.00	
11,100.0	90.00	359.59	8,894.0	1,899.6	291.2	1,913.2	0.00	0.00	0.00	
11,200.0	90.00	359.59	8,894.0	1,999.6	290.5	2,013.0	0.00	0.00	0.00	
11,300.0	90.00	359.59	8,894.0	2,099.6	289.7	2,112.8	0.00	0.00	0.00	
11,400.0	90.00	359.59	8,894.0	2,199.6	289.0	2,212.6	0.00	0.00	0.00	
11,500.0	90.00	359.59	8,894.0	2,299.6	288.3	2,312.3	0.00	0.00	0.00	
11,600.0	90.00	359.59	8,894.0	2,399.6	287.6	2,412.1	0.00	0.00	0.00	
11,700.0	90.00	359.59	8,894.0	2,499.6	286.8	2,511.9	0.00	0.00	0.00	
11,800.0	90.00	359.59	8,894.0	2,599.6	286.1	2,611.7	0.00	0.00	0.00	
11,900.0	90.00	359.59	8,894.0	2,699.5	285.4	2,711.5	0.00	0.00	0.00	
12,000.0	90.00	359.59	8,894.0	2,799.5	284.7	2,811.3	0.00	0.00	0.00	
12,100.0	90.00	359.59	8,894.0	2,899.5	284.0	2,911.1	0.00	0.00	0.00	
12,200.0	90.00	359.59	8,894.0	2,999.5	283.2	3,010.9	0.00	0.00	0.00	
12,300.0	90.00	359.59	8,894.0	3,099.5	282.5	3,110.7	0.00	0.00	0.00	
12,400.0	90.00	359.59	8,894.0	3,199.5	281.8	3,210.5	0.00	0.00	0.00	
12,500.0	90.00	359.59	8,894.0	3,299.5	281.1	3,310.2	0.00	0.00	0.00	
12,600.0	90.00	359.59	8,894.0	3,399.5	280.4	3,410.0	0.00	0.00	0.00	
12,700.0	90.00	359.59	8,894.0	3,499.5	279.6	3,509.8	0.00	0.00	0.00	
12,800.0	90.00	359.59	8,894.0	3,599.5	278.9	3,609.6	0.00	0.00	0.00	
12,900.0	90.00	359.59	8,894.0	3,699.5	278.2	3,709.4	0.00	0.00	0.00	
13,000.0	90.00	359.59	8,894.0	3,799.5	277.5	3,809.2	0.00	0.00	0.00	
13,100.0	90.00	359.59	8,894.0	3,899.5	276.8	3,909.0	0.00	0.00	0.00	
13,200.0	90.00	359.59	8,894.0	3,999.5	276.0	4,008.8	0.00	0.00	0.00	
13,300.0	90.00	359.59	8,894.0	4,099.5	275.3	4,108.6	0.00	0.00	0.00	
13,400.0	90.00	359.59	8,894.0	4,199.5	274.6	4,208.4	0.00	0.00	0.00	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well #303H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	kb = 25' @ 3208.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 25' @ 3208.0usft
<b>Site:</b>	Phantom Draw 20 Fed Unit	<b>North Reference:</b>	Grid
<b>Well:</b>	#303H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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)	
13,500.0	90.00	359.59	8,894.0	4,299.5	273.9	4,308.1	0.00	0.00	0.00	
13,600.0	90.00	359.59	8,894.0	4,399.5	273.1	4,407.9	0.00	0.00	0.00	
13,700.0	90.00	359.59	8,894.0	4,499.5	272.4	4,507.7	0.00	0.00	0.00	
13,800.0	90.00	359.59	8,894.0	4,599.5	271.7	4,607.5	0.00	0.00	0.00	
13,897.5	90.00	359.59	8,894.0	4,697.0	271.0	4,704.8	0.00	0.00	0.00	

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP(Phantom Draw 20 - plan hits target center - Point	0.00	0.01	8,416.5	-477.0	307.0	371,755.00	704,486.00	32° 1' 15.391 N	103° 48' 24.880 W	
FTP(Phantom Draw 20 f - plan hits target center - Point	0.00	0.00	8,629.2	-427.0	307.0	371,805.00	704,486.00	32° 1' 15.886 N	103° 48' 24.877 W	
PBHL(Phantom Draw 20 - plan hits target center - Point	0.00	0.00	8,894.0	4,697.0	271.0	376,929.00	704,450.00	32° 2' 6.595 N	103° 48' 25.006 W	



Eddy County, NM (NAD 83 NME)

Phantom Draw 20 Fed Unit      #303H

Plan #0.1 RT



Azimuths to Grid North  
True North: -0.28°  
Magnetic North: 6.47°

Magnetic Field  
Strength: 47449.0nT  
Dip Angle: 59.71°  
Date: 7/8/2020  
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.47°  
To convert a Magnetic Direction to a True Direction, Add 6.75° East  
To convert a True Direction to a Grid Direction, Subtract 0.28°

PROJECT DETAILS: Eddy 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: #303H

kb = 25' @ 3208.0usft

3183.0

Northing

372232.00

Easting

704179.00

Latitude

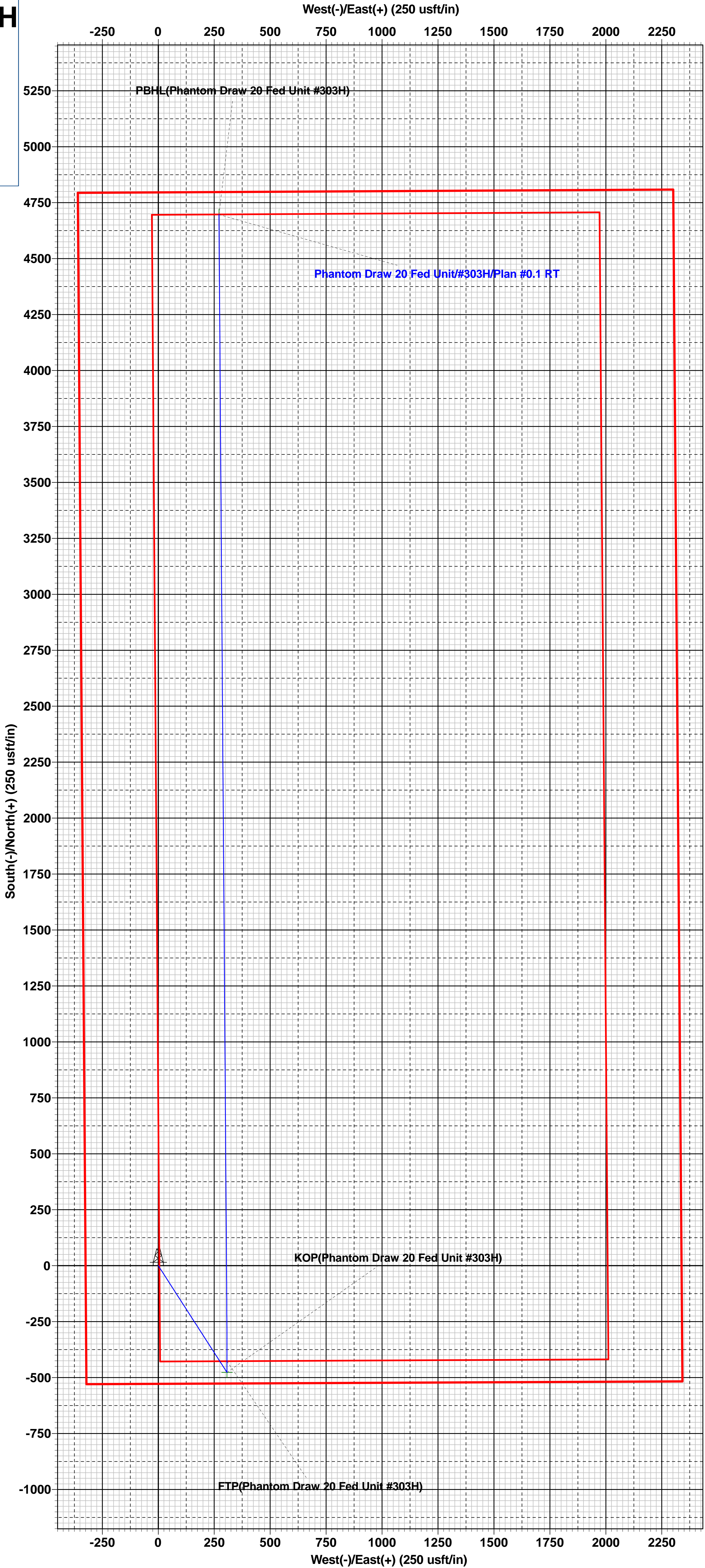
32° 1' 20.127 N

Longitude

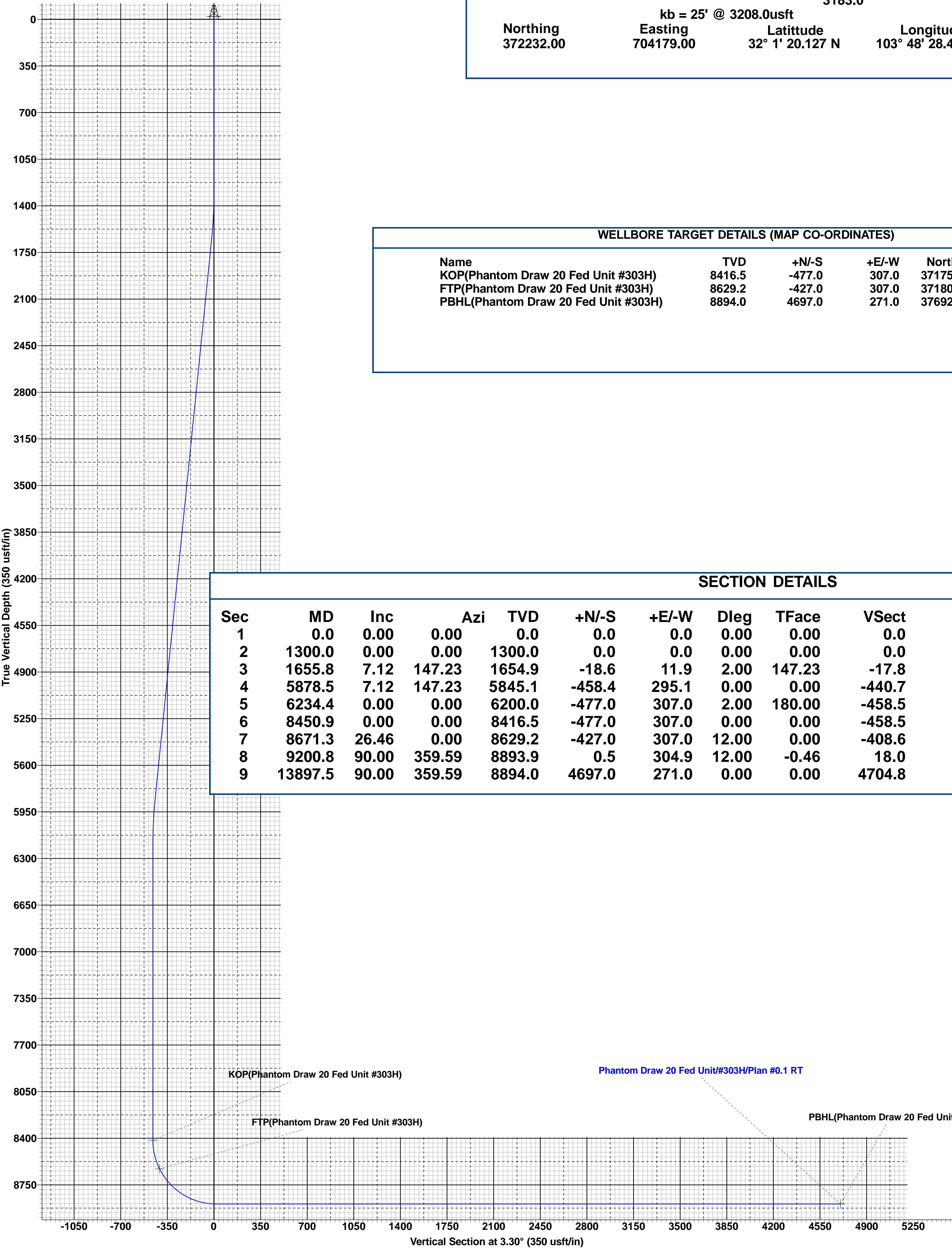
103° 48' 28.419 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Phantom Draw 20 Fed Unit #303H)	8416.5	-477.0	307.0	371755.00	704486.00
FTP(Phantom Draw 20 Fed Unit #303H)	8629.2	-427.0	307.0	371805.00	704486.00
PBHL(Phantom Draw 20 Fed Unit #303H)	8894.0	4697.0	271.0	376929.00	704450.00

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	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	1655.8	7.12	147.23	1654.9	-18.6	11.9	2.00	147.23	-17.8	
4	5878.5	7.12	147.23	5845.1	-458.4	295.1	0.00	0.00	-440.7	
5	6234.4	0.00	0.00	6200.0	-477.0	307.0	2.00	180.00	-458.5	
6	8450.9	0.00	0.00	8416.5	-477.0	307.0	0.00	0.00	-458.5	KOP(Phantom Draw 20 Fed Unit #303H)
7	8671.3	26.46	0.00	8629.2	-427.0	307.0	12.00	0.00	-408.6	FTP(Phantom Draw 20 Fed Unit #303H)
8	9200.8	90.00	359.59	8893.9	0.5	304.9	12.00	-0.46	18.0	
9	13897.5	90.00	359.59	8894.0	4697.0	271.0	0.00	0.00	4704.8	PBHL(Phantom Draw 20 Fed Unit #303H)



Map view showing wellbore path and targets KOP, FTP, and PBHL on a coordinate grid. The grid axes are West(-)/East(+) (250 usft/in) and South(-)/North(+) (250 usft/in). The wellbore path is shown as a blue line starting from the surface and ending at the target PBHL. The targets are marked with black dots and labeled: KOP(Phantom Draw 20 Fed Unit #303H), FTP(Phantom Draw 20 Fed Unit #303H), and PBHL(Phantom Draw 20 Fed Unit #303H). A red rectangular boundary encloses the wellbore path and targets.



Vertical section view showing wellbore path and targets KOP, FTP, and PBHL on a coordinate grid. The grid axes are Vertical Depth (350 usft/in) and Vertical Section at 3.30° (350 usft/in). The wellbore path is shown as a blue line starting from the surface and ending at the target PBHL. The targets are marked with black dots and labeled: KOP(Phantom Draw 20 Fed Unit #303H), FTP(Phantom Draw 20 Fed Unit #303H), and PBHL(Phantom Draw 20 Fed Unit #303H). A red rectangular boundary encloses the wellbore path and targets.

Eddy County, NM (NAD 83 NME)  
Phantom Draw 20 Fed Unit  
#303H  
OH  
Plan #0.1 RT  
11:54, July 09 2020

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>EOG RESOURCES INCORPORATED</b>
<b>WELL NAME &amp; NO.:</b>	<b>PHANTOM DRAW 20 FED UNIT 301H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>245'/S &amp; 357'/E</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>100'/N &amp; 629'/E</b>
<b>LOCATION:</b>	<b>Section 20, T.26 S., R.31 E., NMP</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

<b>OPERATOR'S NAME:</b>	<b>EOG RESOURCES INCORPORATED</b>
<b>WELL NAME &amp; NO.:</b>	<b>PHANTOM DRAW 20 FED UNIT 302H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>510'/S &amp; 2310'/E</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>100'/N &amp; 2630'/E</b>
<b>LOCATION:</b>	<b>Section 20, T.26 S., R.31 E., NMP</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

<b>OPERATOR'S NAME:</b>	<b>EOG RESOURCES INCORPORATED</b>
<b>WELL NAME &amp; NO.:</b>	<b>PHANTOM DRAW 20 FED UNIT 303H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>528'/S &amp; 325'/W</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>100'/N &amp; 629'/W</b>
<b>LOCATION:</b>	<b>Section 20, T.26 S., R.31 E., NMP</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

COA

<b>H2S</b>	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
<b>Potash</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
<b>Cave/Karst Potential</b>	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
<b>Variance</b>	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
<b>Other</b>	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
<b>Other</b>	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
<b>Special Requirements</b>	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit

### A. Hydrogen Sulfide

1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.



**EOG RESOURCES, INC.  
PHANTOM DRAW 20 FED UNIT #303H**

**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/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

- 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.  
PHANTOM DRAW 20 FED UNIT #303H**

- **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.  
PHANTOM DRAW 20 FED UNIT #303H**

**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**

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

**Drilling Manager**

Aj Dach	Office (432) 686-3751
	Cell (817) 480-1167

**Drilling Superintendent**

Jason Townsend	Office (432) 848-9209
	Cell (210) 776-5131

**H&P Drilling**

H&P Drilling	Office (432) 563-5757
H&P 415 Drilling Rig	Rig (432) 230-4840

**Tool Pusher:**

Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

**Safety**

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

**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

COMMENTS  
  
Action 37526

COMMENTS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID:
	7377
	Action Number:
	37526
Action Type:	
[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 7/27/2021	7/27/2021

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

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Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 37526

**CONDITIONS**

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID:
	7377
	Action Number: 37526
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	7/27/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/27/2021
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	7/27/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	7/27/2021
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	7/27/2021