

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTRECEIVED  
OCD-HOBBS  
JUL 12 2010  
HOBBSOCDFORM APPROVED  
OMB NO. 1004-0137  
Expires July 31, 2010

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM122622 (SHL) VC2500 (BHL)
2. Name of Operator EOG Resources Inc.		6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 2267 Midland, Texas 79702	3b. Phone No. (include area code) 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) 330' FNL & 1850' FEL, U/L B SL Sec 28, 26S, 33E ✓ 330' FSL & 1850' FEL, U/L G BHL Sec 36, 26S, 33E		8. Well Name and No. Endurance 25 Fed 1H ✓ Com
		9. API Well No. 30-025-39743 ✓
		10. Field and Pool, or Exploratory Area Undesignated; Bone Spring ✓
		11. County or Parish, State Lea NM ✓

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

EOG Resources requests to amend the approved APD for the subject well. This well was originally intended to be drilled as a horizontal well in the 3rd Bone Spring Sand. The 13-3/8" surface casing and 9-5/8" intermediate casing will be set at the originally approved depths. Upon drilling out of the 9-5/8" intermediate casing, the drilling fluid will be a water based system to a proposed TD of 11,500' TVD.

After reaching TD and logging, EOG Resources will set a 230' (minimum) bottom-hole cement plug, a 600' cement kick-off plug and set a CIBP capped with 30' of cement within 100' of the 9-5/8" casing shoe.

The drilling rig will then move off location. Approximately 60 days later we will move back on the well. The CIBP will be drilled-out and the well will then be drilled horizontally in the Bone Springs (as per the attached directional plan).

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Stan Wagner

Title Regulatory Analyst

PETROLEUM ENGINEER

Signature

Date 6/23/10

JUL 13 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

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

**Permit Information:**

Well Name: Endurance 25 Fed Com No. 1H

**Location:**

SL: 330' FNL &amp; 1850' FEL, Section 25, T-26-S, R-33-E, Lea Co., N.M.

BHL: 330' FSL &amp; 1850' FEL, Section 36, T-26-S, R-33-E, Lea Co., N.M.

**Casing Program:**

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	1150'	17-1/2"	13-3/8"	54.5#	K55	Surface
Intermediate	4,000'	12-1/4"	9-5/8"	40#	J-55	Surface
	5,300'	12-1/4"	9-5/8"	40#	HCK-55	
Production	16,720'	8-3/4"	5-1/2"	20#	HCP-110	4800'

**Cement Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
1,150'	500	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl <sub>2</sub>
	200	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)
5,300'	1100	12.7	2.01	Lead: Class 'C' + 2.00% SMS + 1.50% R-3 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
11,500'	125	18.0	0.90	250' Btm Hole Plug - Class 'H' + 1.20% CD-31 + 0.20% R-3 + 5.00% Salt (1.252 lb/sk)
9,000' – 9,600'	300	18.0	0.90	600' Sidetrack Plug - Class 'H' + 1.20% CD-31 + 0.20% R-3 + 5.00% Salt (1.252 lb/sk)
16,720'	975	11.8	2.37	Lead: 50:50:10 Class 'H' + 0.80% FL-52A + 0.30% ASA-301 + 0.30% SMS + 2.00% Salt (2.259 lb/sk) + 0.20% R-21 + 0.25 lb/sk Cello Flake
	1250	14.2	1.30	Tail: 50:50:2 Class 'H' + 0.30% FL-52A + 0.20% CD-32 + 0.35% SMS + 5.00% Salt (2.454 lb/sk) + 0.45% R-3 + 0.005 lb/sk Static Free

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 5,300'	Brine	10.0-10.2	28-34	N/c
5,300' – 8,500'	Fresh Water	8.4-8.6	28-34	N/c
8,500' – 11,500'	Cut Brine	9.0-9.5	28-34	N/c
Pilot hole				
9,322' – 16,720'	Cut Brine	9.0-9.5	28-34	N/c
Lateral				

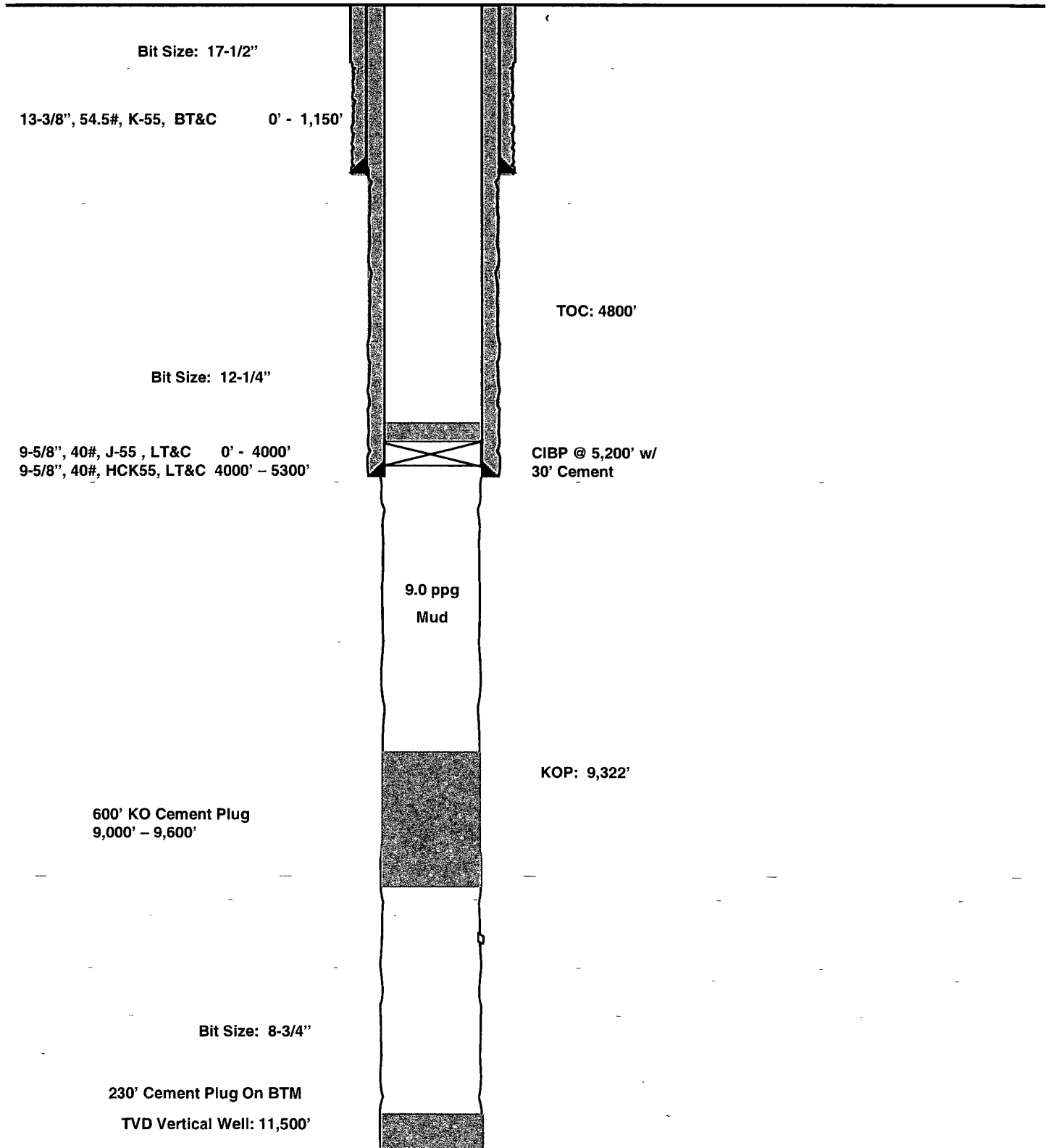
Endurance 25 Fed Com #1H  
Red Hills  
Lea County, New Mexico

330' FNL  
1850' FEL  
Section 25  
T-26-S, R-33-E

Proposed Wellbore

API: 30-025-39743

KB: 3,390.3'  
GL: 3,360.3'



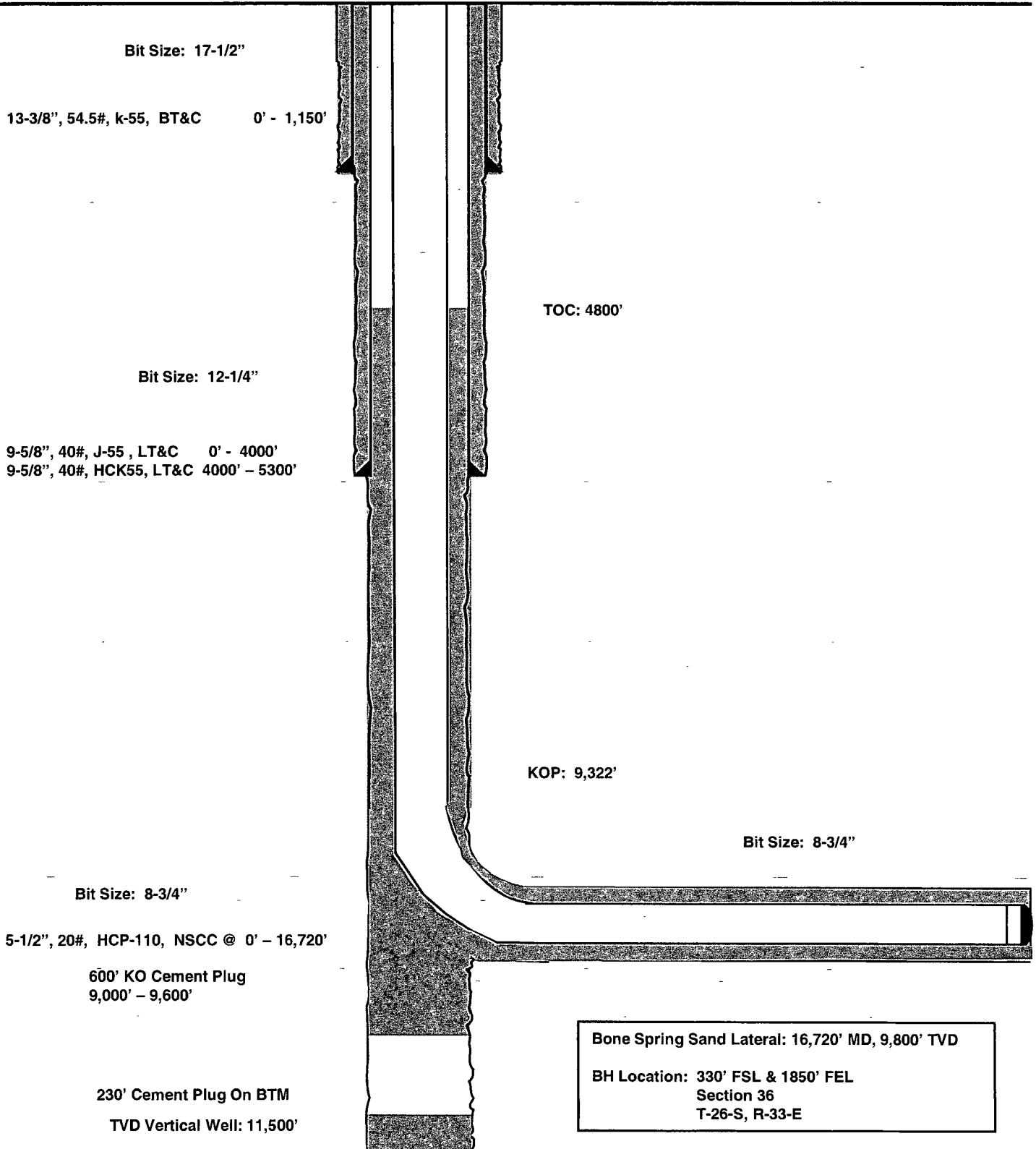
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T-26-S, R-33-E

Proposed Wellbore

API: 30-025-39743

KB: 3,390.3'  
GL: 3,360.3'



**EOG RESOURCES, INC.**  
**ENDURANCE 25 FED COM NO. 1H**

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

Permian

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

Rustler	850'
Base of Salt	5,250'
Delaware	5,290'
Base Brushy Canyon	9,200'
Bone Spring Lime	9,500'
1 <sup>st</sup> Bone Spring Sand	10,450'
2 <sup>nd</sup> Bone Spring Sand	10,950'
3 <sup>rd</sup> Bone Spring Sand	11,600'
Pilot hole TD	11,500'

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware	5,290'	Oil
Base Brushy Canyon	9,200'	Oil
Bone Spring Lime	9,500'	Oil
1 <sup>st</sup> Bone Spring Sand	10,450'	Oil
2 <sup>nd</sup> Bone Spring Sand	10,950'	Oil
3 <sup>rd</sup> Bone Spring Sand	11,600'	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 1,150' and circulating cement back to surface.

**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 – 1,150'	13.375"	54.5#	K55	BTC	1.10	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.10	1.25	1.60
12.25"	4000'-5300'	9.625"	40#	HCK55	LTC	1.10	1.25	1.60
8.75"	0'-16,720'	5.5"	20#	HCP110	NSCC	1.10	1.25	1.60

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**Cementing Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
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**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. EOG Resources request authorization to use a 2M system, providing for an annular preventer to be used prior to drilling out of the surface casing shoe and while drilling the intermediate section. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 2500/ 250 psig.

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.

**EOG RESOURCES, INC.**  
**ENDURANCE 25 FED COM NO. 1H**

Hydraulically operated choke will not be installed prior to the setting and cementing of the intermediate casing string, but will be installed prior to drilling out of the intermediate casing shoe.

**6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:**

The well will be drilled to TD with a combination of brine, cut brine, and polymer mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 5,300'	Brine	10.0-10.2	28-34	N/c
5,300' – 8,500'	Fresh Water	8.4-8.6	28-34	N/c
8,500' – 11,500'	Cut Brine	9.0-9.5	28-34	N/c
Pilot hole				
9,322' – 16,720'	Cut Brine	9.0-9.5	28-34	N/c
Lateral				

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) A mud logging unit will be continuously monitoring drill penetration rate and hydrocarbon shows from 1,150' to TD.
- (D) H<sub>2</sub>S monitoring and detection equipment will be utilized from 1,150' to TD.

**8. LOGGING, TESTING AND CORING PROGRAM:**

Open-hole logging is anticipated in the 8-3/4" hole section. The logging suites for this hole section are listed below:

NGT–CNL–LDT w/ Pe	From TD to previous casing shoe. At casing pull-GR – Neutron to surface.
HR Laterolog Array	From TD to previous casing shoe.
FMI	Possible in the production hole

**EOG RESOURCES, INC.**  
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**9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND  
POTENTIAL HAZARDS:**

The estimated bottom hole temperature (BHT) at TD is 170 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

**10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

The drilling operation should be finished in approximately two months. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.