

Yarrow 32 State #201H  
Lea County, New Mexico

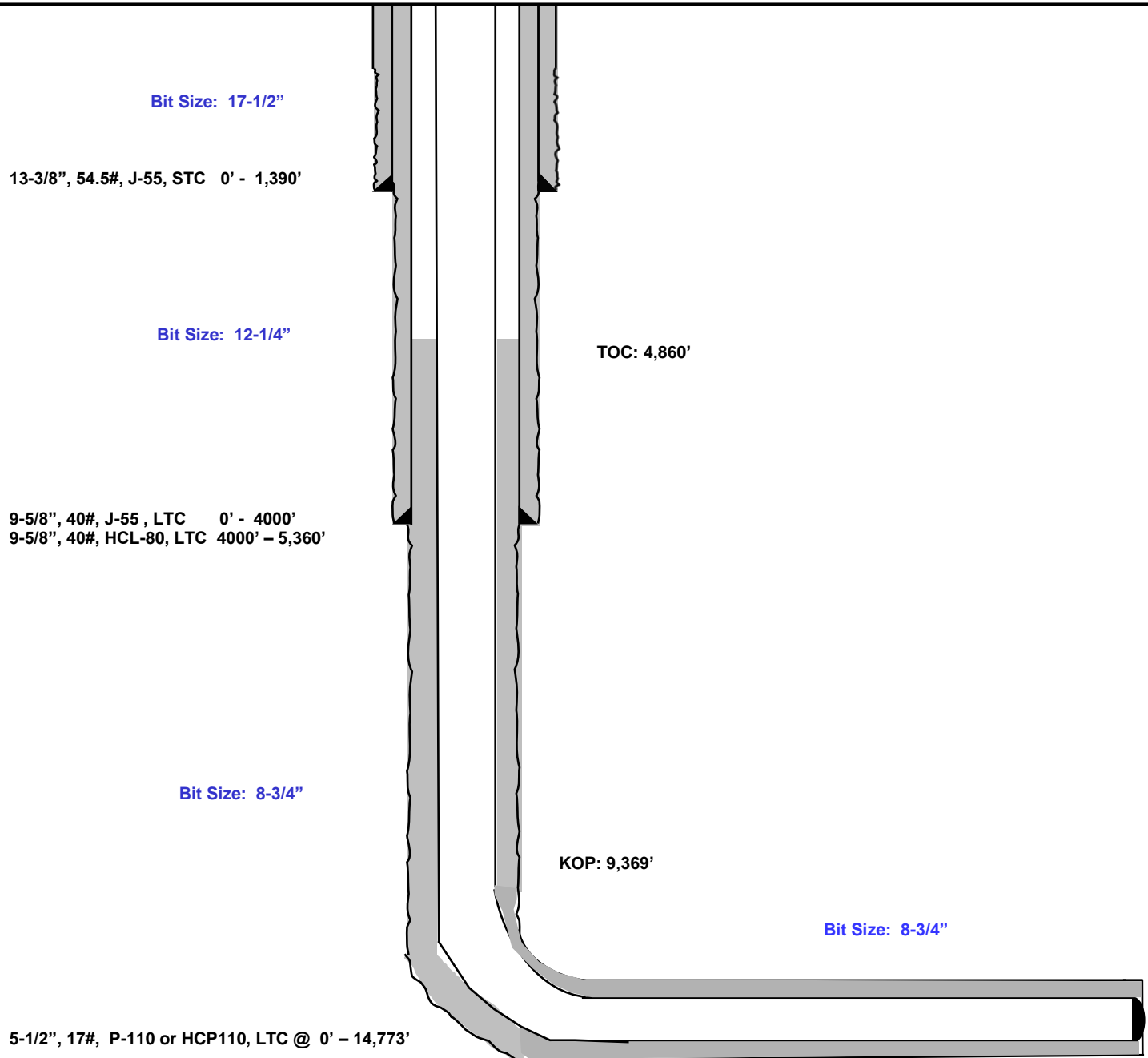
Proposed Wellbore

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

OCD - HOBBS  
07/31/2019  
RECEIVED

454' FSL  
468' FEL  
Section 32  
T-23-S, R-33-E

KB: 3,692'  
GL: 3,667'



Lateral: 14,773' MD, 9,833' TVD  
BH Location: 100' FNL & 495' FEL  
Section 32  
T-23-S, R-33-E

**EOG RESOURCES, INC.**  
**YARROW 32 STATE #201H**

**Permit Information:**

Well Name: Yarrow 32 State #201H

Location:

SHL: 454' FSL & 468' FEL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 495' FEL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
17.5"	0' – 1,390'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' – 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4000' – 5,360'	9.625"	40#	HCL-80	LTC	1.125	1.25	1.60
8.75"	0' – 14,773'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

**Cement Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /ft	Slurry Description
1,390'	870	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
5,360'	540	9.0	3.5	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	380	14.4	1.20	Tail: Class C + 10% NaCl + 3% MagOx
14,773'	470	11.0	3.21	Lead: Class C + 3% CaCl <sub>2</sub> + 3% Microbond (TOC @ 4,860')
	1,430	14.4	1.2	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' – 1,390'	Fresh - Gel	8.6-8.8	28-34	N/c
1,390' – 5,360'	Brine	10.0-10.2	28-34	N/c
5,360' – 9,369'	Cut Brine	8.4-9.0	28-34	N/c
9,369' – 14,773' Lateral	Oil Base	9.0-9.5	40-42	8-10

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## **Hydrogen Sulfide Plan Summary**

- A. All personnel shall receive proper H<sub>2</sub>S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

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

- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/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.

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- **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.

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**Emergency Assistance Telephone List**

**PUBLIC SAFETY:** **911 or**

Lea County Sheriff's Department (575) 396-3611

Rod Coffman

Fire Department:

Carlsbad (575) 885-3125

Artesia (575) 746-5050

Hospitals:

Carlsbad (575) 887-4121

Artesia (575) 748-3333

Hobbs (575) 392-1979

Dept. of Public Safety/Carlsbad (575) 748-9718

Highway Department (575) 885-3281

New Mexico Oil Conservation (575) 476-3440

U.S. Dept. of Labor (575) 887-1174

**EOG Resources, Inc.**

EOG / Midland Office (432) 686-3600

**Company Drilling Consultants:**

David Dominique Cell (985) 518-5839

Mike Vann Cell (817) 980-5507

**Drilling Engineer**

Steve Munsell Office (432) 686-3609

Cell (432) 894-1256

**Drilling Manager**

Aj Dach Office (432) 686-3751

Cell (817) 480-1167

**Drilling Superintendent**

Domingo Lopez Office (432) 686-3702

Cell (432) 215-9452

**H&P Drilling**

H&P Drilling Office (432) 563-5757

H&P 651 Drilling Rig Rig (903) 509-7131

**Tool Pusher:**

Johnathan Craig Cell (817) 760-6374

Brad Garrett

**Safety**

Brian Chandler (HSE Manager) Office (432) 686-3695

Cell (817) 239-0251