| Received by Och 6 Appropriate 1strict:51                                     | State of New Me                          | xico                | Form <i>C-103</i> f 22   |
|--|--|---------------------|--|
| Office <u>District I</u> – (575) 393-6161                                    | Energy, Minerals and Natu                |                     | Revised July 18, 2013  |
| 1625 N. French Dr., Hobbs, NM 88240  |  |                     | WELL API NO.   |
| <u>District II</u> – (575) 748-1283<br>811 S. First St., Artesia, NM 88210   | OIL CONSERVATION                         |                     | 30-025-52986  5. Indicate Type of Lease  |
| <u>District III</u> – (505) 334-6178<br>1000 Rio Brazos Rd., Aztec, NM 87410 | 1220 South St. Fran                      |                     | STATE FEE  |
| <u>District IV</u> – (505) 476-3460  | Santa Fe, NM 87                          | 505                 | 6. State Oil & Gas Lease No.   |
| 1220 S. St. Francis Dr., Santa Fe, NM<br>87505                               |  |                     | 313956   |
|  | CES AND REPORTS ON WELLS                 |                     | 7. Lease Name or Unit Agreement Name   |
| (DO NOT USE THIS FORM FOR PROPOSA<br>DIFFERENT RESERVOIR. USE "APPLICA"      |  |                     | N 4 10 Ct 4 C  |
| PROPOSALS.)  |  |                     | Neptune 10 State Com   |
| 71 —   | Gas Well Other                           |                     | 8. Well Number 741H  |
| 2. Name of Operator EOG Resources, Inc.                                      |  |                     | 9. OGRID Number 7377   |
| 3. Address of Operator   |  |                     | 10. Pool name or Wildcat 98135   |
| P.O. Box 2267, Midland, Texas 797  | 02                                       |                     | WC-025 G-09 S43310P; Up Wolfcamp   |
| 4. Well Location   |  |                     |  |
|  |  | th line and _6      |  |
| Section 10   | 24S Township 33E                         | Range               | NMNM Lea County  |
|  | 11. Elevation (Show whether DR, 3607' GR | RKB, RT, GR, etc.,  |  |
|  | 3007 GK                                  |                     |  |
| 12. Check A  | ppropriate Box to Indicate N             | ature of Notice.    | Report or Other Data   |
|  | • •                                      |                     | •  |
| NOTICE OF INT  |  |                     | SEQUENT REPORT OF:   |
| PERFORM REMEDIAL WORK ☐ TEMPORARILY ABANDON ☐                                | PLUG AND ABANDON ☐ CHANGE PLANS ☒        | REMEDIAL WOR        | <del>_</del>   |
| TEMPORARILY ABANDON L PULL OR ALTER CASING                                   | MULTIPLE COMPL                           | CASING/CEMEN        |  |
| DOWNHOLE COMMINGLE   | MOETH EE GOWN E                          | ON TOTAL OF CENTER  |  |
| CLOSED-LOOP SYSTEM   |  |                     |  |
| OTHER:   |  | OTHER:              |  |
|  |  |                     | d give pertinent dates, including estimated date mpletions: Attach wellbore diagram of |
| proposed completion or reco  |  | . For Multiple Cor  | inpletions. Attach welloofe diagram of   |
| 1 1 1  | 1  |                     |  |
| EOG respectfully requests an ar  | mendment to our approved A               | APD for this well   | to reflect   |
| the following changes:   |  |                     |  |
|  |  |                     |  |
| Update intermediate casing set   | point.                                   |                     |  |
|  |  |                     |  |
|  |  |                     |  |
|  |  |                     |  |
| Spud Date:   | D's Dalaces De                           | ite:                |  |
| Spud Date:   | Rig Release Da                           | e:                  |  |
|  |  |                     |  |
| I hereby certify that the information a                                      | bove is true and complete to the be      | est of my knowledge | e and belief.  |
| 3  | 1  | , .                 |  |
| SIGNATUDE  | TITLE Dogul                              | ntomy Advisor       | DATE 6/27/2024   |
| SIGNATURE  |  | atory Advisor       | DATE_6/27/2024   |
|  | E-mail address: star_harrell(            | @eogresources.com   | PHONE: 432-848-9161  |
| For State Use Only   |  |                     |  |
| APPROVED BY:   | TITLE                                    |                     | DATE   |
| Conditions of Approval (if any):   | 11122                                    |                     |  |

Neptune 10 State Com #741H **LEA County, New Mexico** 

1417' FSL 690' FEL **Section 10** 

T-24-S, R-33-E

**Proposed Wellbore** KB: 3632' GL: 3607' Design A

API: 30-025-52986 Bit Size: 12-1/4" 9-5/8", 36#, J-55, LTC, 0' - 1,430" Bit Size: 8-3/4" 7-5/8", 29.7#, ICYP-110, MO FXL, 0' - 12,700" TOC: 12,200' Bit Size: 6-3/4" 5-1/2", 17#, HCP-110, LTC @ 0' - 23,425' Bit Size: 6-3/4"

KOP: 12,745'

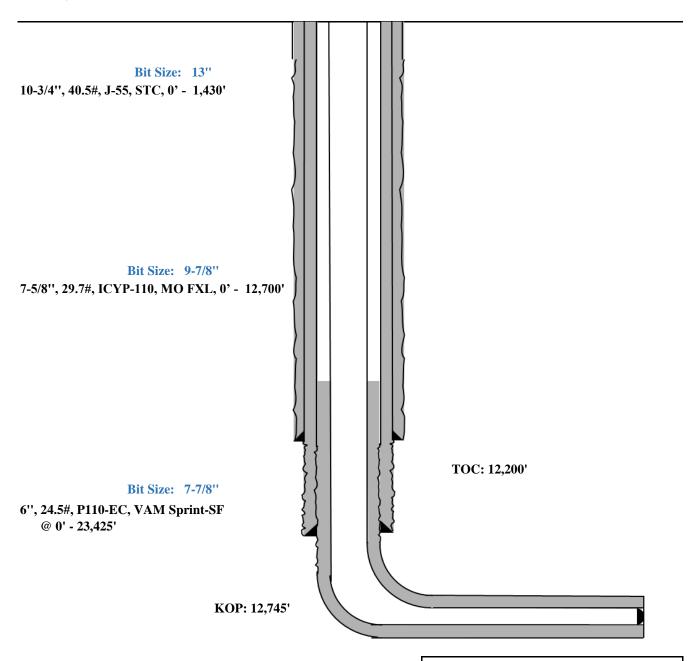
Lateral: 23,425' MD, 12,924' TVD BH Location: 100' FNL & 1940' FEL Sec. 3

T-24-S R-33-E

Neptune 10 State Com #741H LEA County, New Mexico Proposed Wellbore

1417' FSL 690' FEL Section 10 roposed Wellbore KB: 3632'
Design B GL: 3607'

T-24-S, R-33-E API: 30-025-52986



Lateral: 23,425' MD, 12,924' TVD BH Location: 100' FNL & 1940' FEL Sec. 3

T-24-S R-33-E



### Neptune 10 State Com #741H

#### **Permit Information:**

Well Name: Neptune 10 State Com #741H

Location:

SHL: 1417' FSL & 690' FEL, Section 10, T-24-S, R-33-E, LEA Co., N.M. BHL: 100' FNL & 1940' FEL, Section 3, T-24-S, R-33-E, LEA Co., N.M.

#### Design A

**Casing Program:** 

| Hole    | Interval MD |         | Interval TVD |         | Csg    |        |          |        |
|---------|-------------|---------|--------------|---------|--------|--------|----------|--------|
| Size    | From (ft)   | To (ft) | From (ft)    | To (ft) | OD     | Weight | Grade    | Conn   |
| 12-1/4" | 0           | 1,430   | 0            | 1,430   | 9-5/8" | 36#    | J-55     | LTC    |
| 8-3/4"  | 0           | 12,700  | 0            | 13,035  | 7-5/8" | 29.7#  | ICYP-110 | MO FXL |
| 6-3/4"  | 0           | 23,425  | 0            | 12,924  | 5-1/2" | 17#    | HCP-110  | LTC    |

**Cement Program:** 

| Cemen   | t Frogram: |            |               |  |
|---------|------------|------------|---------------|--|
| Depth   | No. Sacks  | Wt.<br>ppg | Yld<br>Ft3/sk | Slurry Description   |
| 1 420   | 380        | 13.5       | 1.73          | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25<br>lb/sk Cello-Flake (TOC @ Surface)     |
| 1,430'  | 80         | 14.8       | 1.34          | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium<br>Metasilicate                        |
| 12,700' | 610        | 14.2       | 1.11          | 1st Stage (Tail): Class C + 5% Salt (TOC @ 7,523')   |
| 12,700  | 1290       | 14.8       | 1 15          | 2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface) |
| 23,425' | 960        | 13.2       | 1.31          | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 12,200')                     |

# **Mud Program:**

| Depth             | Type        | Weight (ppg) | Viscosity | Water Loss |
|-------------------|-------------|--------------|-----------|------------|
| 0 – 1,430'        | Fresh - Gel | 8.6-8.8      | 28-34     | N/c        |
| 1,430' – 12,700'  | Brine       | 10.0-10.2    | 28-34     | N/c        |
| 12,700' – 12,745' | Oil Base    | 8.7-9.4      | 58-68     | N/c - 6    |
| 12,745' – 23,425' | Oil Base    | 10.0-14.0    | 58-68     | 4 - 6      |
| Lateral           |             |              |           |            |



#### Neptune 10 State Com #741H

#### **Design B**

#### **CASING PROGRAM**

| Hole   | Interva   | al MD   | Interva   | d TVD   | Csg     |        |         |               |
|--------|-----------|---------|-----------|---------|---------|--------|---------|---------------|
| Size   | From (ft) | To (ft) | From (ft) | To (ft) | OD      | Weight | Grade   | Conn          |
| 13"    | 0         | 11,974  | 0         | 12,309  | 10-3/4" | 40.5#  | J-55    | STC           |
| 9-7/8" | 0         | 12,745  | 0         | 13,080  | 8-3/4"  | 38.5#  | P110-EC | SLIJ II NA    |
| 7-7/8" | 0         | 23,425  | 0         | 12,924  | 6"      | 24.5#  | P110-EC | VAM Sprint-SF |

**Cementing Program:** 

| Depth   | No. Sacks | Wt.<br>ppg | Yld<br>Ft3/sk | Slurry Description   |
|---------|-----------|------------|---------------|--|
| 11.074  | 3630      | 13.5       | 1.73          | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25<br>lb/sk Cello-Flake (TOC @ Surface)     |
| 11,974' | 70        | 14.8       | 1.34          | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium<br>Metasilicate                        |
| 12.750  | 690       | 14.2       | 1.11          | 1st Stage (Tail): Class C + 5% Salt (TOC @ 7,523')   |
| 12,750' | 1740      | 14.8       | 1.5           | 2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface) |
| 23,425' | 1600      | 13.2       | 1.31          | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-<br>17 (TOC @ 12,240')                 |

As a contingency, EOG requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,723') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,290 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (1.5 yld, 14.8 ppg) will be executed.

**Mud Program:** 

| - 0                          |             |              |           |            |
|------------------------------|-------------|--------------|-----------|------------|
| Depth                        | Type        | Weight (ppg) | Viscosity | Water Loss |
| 0 – 1,430'                   | Fresh - Gel | 8.6-8.8      | 28-34     | N/c        |
| 1,430' – 4,110'              | Brine       | 10.0-10.2    | 28-34     | N/c        |
| 4,110' – 12,700'             | Oil Base    | 8.7-9.4      | 58-68     | N/c - 6    |
| 12,700' – 23,425'<br>Lateral | Oil Base    | 10.0-14.0    | 58-68     | 4 - 6      |
| Buttrui                      |             |              |           |            |



#### Neptune 10 State Com 741H

#### **TUBING REQUIREMENTS**

EOG respectively requests an exception to the following NMOCD rule:

19.15.16.10 Casing AND TUBING RQUIREMENTS:
 J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.

EOG requests a variance to set the intermediate casing shoe in the Bone Spring formation or the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.



#### Neptune 10 State Com #741H

# **Hydrogen Sulfide Plan Summary**

- A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
  - Well control equipment
  - a. Flare line 150' from wellhead to be ignited by flare gun.
  - b. Choke manifold with a remotely operated choke.
  - c. Mud/gas separator
  - Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

#### **Auxiliary Rescue Equipment:**

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher
- H2S 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.



#### Neptune 10 State Com #741H

#### ■ Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S 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 H2S service.

#### ■ Communication:

Communication will be via cell phones and land lines where available.



# Neptune 10 State Com #741H Emergency Assistance Telephone List

| Carl Shariff's Department Rod Coffman   Rod Coffman   | PUBLIC SAFE             | TY:                | 1      | 911 or         |
|---|-------------------------|--------------------|--------|----------------|
| Fire Department:  Carlsbad Artesia  (575) 885-3125 Artesia  Hospitals:  Carlsbad Artesia  Carlsbad Artesia  Carlsbad Artesia  Carlsbad Artesia  (575) 746-5050  Hospitals:  Carlsbad Artesia  Carlsbad Artesia  (575) 887-4121 Artesia (575) 748-3333 Hobbs (575) 392-1979 Dept. of Public Safety/Carlsbad Highway Department (575) 748-9718 Highway Department (575) 488-9718 Highway Department (575) 488-9718 Highway Department (575) 488-9718 Highway Department (575) 488-9718 Highway Department (575) 476-3440 NMOCD Inspection Group - South (575) 626-0830 U.S. Dept. of Labor (575) 887-1174 EOG Resources, Inc.  EOG / Midland Office  Company Drilling Consultants:  David Dominque Cell (817) 980-5507  Drilling Engineer  Esteban Del Valle Cell (432) 269-7063 Daniel Moose Cell (432) 312-2803 Drilling Manager  Aj Dach Office (432) 312-2803 Drilling Manager  Aj Dach Office (432) 348-9209 Cell (210) 776-5131 H&P Drilling H&P Drilling H&P Drilling Rig Rig (903) 509-7131  Tool Pusher:  Johnathan Craig Artesia Brian Chandler (HSE Manager) Office (432) 686-3695 | Lea County Sher         | riff's Department  |        | (575) 396-3611 |
| Carlsbad Artesia (575) 885-3125 (575) 746-5050  |                         | Rod Coffman        |        |                |
| Artesia (575) 746-5050  | Fire Department         | :                  |        |                |
| Carlsbad  |                         | Carlsbad           |        | (575) 885-3125 |
| Carlsbad Artesia  |                         | Artesia            |        | (575) 746-5050 |
| Artesia (575) 748-3333 Hobbs (575) 392-1979 Dept. of Public Safety/Carlsbad (575) 392-1979 Dept. of Public Safety/Carlsbad (575) 392-1979 Dept. of Public Safety/Carlsbad (575) 382-1979 Dept. of Public Safety/Carlsbad (575) 885-3281 New Mexico Oil Conservation (575) 476-3440 NMOCD Inspection Group - South (575) 626-0830 U.S. Dept. of Labor (575) 887-1174  EOG Resources, Inc.  EOG / Midland Office (432) 686-3600  Company Drilling Consultants:  David Dominque Cell (887) 518-5839 Mike Vann Cell (817) 980-5507  Drilling Engineer  Esteban Del Valle Cell (432) 269-7063 Daniel Moose Cell (432) 312-2803 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 H&P Drilling H&P Drilling Rig 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   | Hospitals:              |                    |        |                |
| Hobbs   (575) 392-1979     Dept. of Public Safety/Carlsbad   (575) 748-9718     Highway Department   (575) 885-3281     New Mexico Oil Conservation   (575) 476-3440     NMOCD Inspection Group - South   (575) 626-0830     U.S. Dept. of Labor   (575) 887-1174     EOG Resources, Inc.     EOG / Midland   Office   (432) 686-3600     Company Drilling Consultants:     David Dominque   Cell   (985) 518-5839     Mike Vann   Cell   (817) 980-5507     Drilling Engineer     Esteban Del Valle   Cell   (432) 269-7063     Daniel Moose   Cell   (432) 312-2803     Drilling Manager     Aj Dach   Office   (432) 686-3751     Cell   (210) 776-5131     H&P Drilling Superintendent     Jason Townsend   Office   (432) 848-9209     Cell   (210) 776-5131     H&P Drilling Rig   Office   (432) 563-5757     H&P 651 Drilling Rig   Rig   (903) 509-7131     Tool Pusher:     Johnathan Craig   Cell   (817) 760-6374     Braid Garrett     Brian Chandler (HSE Manager)   Office   (432) 686-3695  |                         | Carlsbad           |        | (575) 887-4121 |
| Dept. of Public Safety/Carlsbad   |                         | Artesia            |        | (575) 748-3333 |
| Highway Department  |                         | Hobbs              |        | (575) 392-1979 |
| New Mexico Oil Conservation   | Dept. of Public S       | Safety/Carlsbad    |        | (575) 748-9718 |
| NMOCD Inspection Group - South       (575) 626-0830         U.S. Dept. of Labor       (575) 887-1174         EOG Resources, Inc.       EOG / Midland         Company Drilling Consultants:       Secondary Drilling Consultants:         David Dominque       Cell (817) 980-5507         Drilling Engineer         Esteban Del Valle       Cell (432) 269-7063         Daniel Moose       Cell (432) 312-2803         Drilling Manager         Aj Dach       Offfice (432) 686-3751         Cell (817) 480-1167       Cell (817) 480-1167         Drilling Superintendent         Jason Townsend       Offfice (432) 848-9209         Cell (210) 776-5131       H&P Drilling         H&P Drilling       Offfice (432) 563-5757         H&P 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  | Highway Depart          | ment               |        | (575) 885-3281 |
| U.S. Dept. of Labor   | New Mexico Oil          | l Conservation     |        | (575) 476-3440 |
| EOG Resources, Inc.           EOG / Midland         Office         (432) 686-3600           Company Drilling Consultants:           David Dominque         Cell         (985) 518-5839           Mike Vann         Cell         (817) 980-5507           Drilling Engineer           Esteban Del Valle         Cell         (432) 269-7063           Daniel Moose         Cell         (432) 312-2803           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 Office         (432) 563-5757           H&P Office         (817) 760-6374           Brad Garrett         Safety:           Brian Chandler (HSE Manager)         Office         (432) 686-3695   | NMOCD Inspec            | tion Group - South |        | (575) 626-0830 |
| Company Drilling Consultants:         Cell (985) 518-5839           David Dominque Mike Vann         Cell (817) 980-5507           Drilling Engineer         Cell (432) 269-7063           Bsteban Del Valle Daniel Moose Cell (432) 312-2803         Cell (432) 312-2803           Drilling Manager         Cell (817) 480-1167           Drilling Superintendent         Cell (817) 480-1167           Drilling Superintendent         Office (432) 848-9209           Jason Townsend         Office (210) 776-5131           H&P Drilling         Office (432) 563-5757           H&P Orilling Rig         Rig (903) 509-7131           Tool Pusher:         Johnathan Craig           Brad Garrett         Cell (817) 760-6374           Brad Garrett         Safety:           Brian Chandler (HSE Manager)         Office (432) 686-3695  | U.S. Dept. of La        | bor                |        | (575) 887-1174 |
| Company Drilling Consultants:         Cell (985) 518-5839           David Dominque Mike Vann         Cell (817) 980-5507           Drilling Engineer         Cell (432) 269-7063           Bsteban Del Valle Daniel Moose Cell (432) 312-2803         Cell (432) 312-2803           Drilling Manager         Cell (817) 480-1167           Drilling Superintendent         Cell (817) 480-1167           Drilling Superintendent         Office (432) 848-9209           Jason Townsend         Office (210) 776-5131           H&P Drilling         Office (432) 563-5757           H&P Orilling Rig         Rig (903) 509-7131           Tool Pusher:         Johnathan Craig           Brad Garrett         Cell (817) 760-6374           Brad Garrett         Safety:           Brian Chandler (HSE Manager)         Office (432) 686-3695  | <b>EOG Resources</b>    | s, Inc.            |        | , ,            |
| David Dominque   Cell (985) 518-5839   Mike Vann   Cell (817) 980-5507  |                         | ,                  | Office | (432) 686-3600 |
| David Dominque   Cell (985) 518-5839   Mike Vann   Cell (817) 980-5507  | C D 1111                |                    |        |                |
| Mike Vann         Cell         (817) 980-5507           Drilling Engineer           Esteban Del Valle         Cell         (432) 269-7063           Daniel Moose         Cell         (432) 312-2803           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 Rig         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   |                         |                    | C 11   | (005) 510 5020 |
| Steban Del Valle  | *                       | e                  |        | , ,            |
| Esteban Del Valle       Cell       (432) 269-7063         Daniel Moose       Cell       (432) 312-2803         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 Rig       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   | Mike Vann               |                    | Cell   | (817) 980-5507 |
| Daniel Moose   Cell (432) 312-2803  |                         |                    |        |                |
| 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       Office (432) 563-5757 Rig (903) 509-7131         H&P 651 Drilling Rig       Rig (903) 509-7131         Tool Pusher:       Safety:         Brian Chandler (HSE Manager)       Office (432) 686-3695   | Esteban Del Val         | le                 | Cell   | (432) 269-7063 |
| 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 Rig 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   | Daniel Moose            |                    | Cell   | (432) 312-2803 |
| Cell (817) 480-1167   | <b>Drilling Manag</b>   | er                 |        |                |
| Drilling Superintendent           Jason Townsend         Office (432) 848-9209 Cell (210) 776-5131           H&P Drilling         Office (432) 563-5757 Rig (903) 509-7131           Tool Pusher:         Safety:           Brian Chandler (HSE Manager)         Office (432) 686-3695  | Aj Dach                 |                    | Office | (432) 686-3751 |
| Jason Townsend       Office (432) 848-9209 Cell (210) 776-5131         H&P Drilling       Office (432) 563-5757 Rig (903) 509-7131         H&P 651 Drilling Rig       Rig (903) 509-7131         Tool Pusher:       Cell (817) 760-6374 Brad Garrett         Safety:       Brian Chandler (HSE Manager)   |                         |                    | Cell   | (817) 480-1167 |
| Cell (210) 776-5131         H&P Drilling         H&P Drilling Rig       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  | <b>Drilling Superio</b> | ntendent           |        |                |
| 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  | Jason Townsend          |                    | Office | (432) 848-9209 |
| 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   | (210) 776-5131 |
| H&P 651 Drilling Rig  Tool Pusher:  Johnathan Craig Brad Garrett  Safety:  Brian Chandler (HSE Manager)  Rig  (903) 509-7131  Rig  (903) 509-7131  Cell  (817) 760-6374  Office  (432) 686-3695   | H&P Drilling            |                    |        |                |
| Tool Pusher:  Johnathan Craig Brad Garrett  Safety:  Brian Chandler (HSE Manager)  Office (432) 686-3695  | H&P Drilling            |                    | Office | (432) 563-5757 |
| Johnathan Craig Brad Garrett  Safety: Brian Chandler (HSE Manager)  Cell (817) 760-6374  Office (432) 686-3695  | H&P 651 Drillin         | ng Rig             | Rig    | (903) 509-7131 |
| Johnathan Craig Brad Garrett  Safety: Brian Chandler (HSE Manager)  Cell (817) 760-6374  Office (432) 686-3695  | Tool Pusher             |                    |        |                |
| Brad Garrett  Safety:  Brian Chandler (HSE Manager)  Office (432) 686-3695  |                         |                    | Cell   | (817) 760-6374 |
| Safety: Brian Chandler (HSE Manager) Office (432) 686-3695  | _                       |                    | CCII   | (017) 700 0374 |
| Brian Chandler (HSE Manager) Office (432) 686-3695  | Diad Gailon             |                    |        |                |
|   | Safety:                 |                    |        |                |
| Cell (817) 239-0251   | Brian Chandler (        | (HSE Manager)      | Office | (432) 686-3695 |
|   |                         |                    | Cell   | (817) 239-0251 |



## Neptune 10 State Com 741H API #: 30-025-52986 Variances

EOG respectfully requests the below variances to be applied to the above well:

- Variance is requested to waive the centralizer requirements for the intermediate casing in the intermediate hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the intermediate interval to maximize cement bond and zonal isolation.
- Variance is also requested to waive the centralizer requirements for the production casing in the production hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the production interval to maximize cement bond and zonal isolation.
- EOG requests a variance to set the intermediate casing shoe in the Bone Spring formation or the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.
- Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).
  - Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.
- 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 1,500 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.

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 3a b BOP Break-test and Offline Intermediate Cement
- EOG BLM Variance 2a Inermediate Bradenhead Cement



#### **Break-test BOP & Offline Cementing:**

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of ECFR Title 43 Part 3172.6(b)(9)(iv) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days.
- This test will be conducted for 5M rated hole intervals only.
- Each rig requesting the break-test variance is capable of picking up the BOP without damaging components using winches, following API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth edition, December 2018, Annex C. Table C.4) which recognizes break testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
  - Annular **à** during each full BOPE test
  - Upper Pipe Rams **à** On trip ins where FIT required
  - Blind Rams **à** Every trip
  - Lower Pipe Rams à during each full BOPE test
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the
  casing will be monitored via the valve on the TA cap as per standard batch drilling
  ops.

Blind Rams

Roadside Kill

Test plug

# **Break Test Diagram (HCR valve)**

# Steps

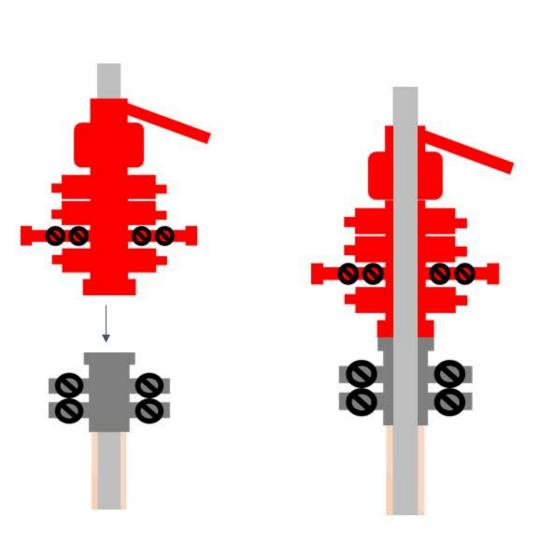
Pressure

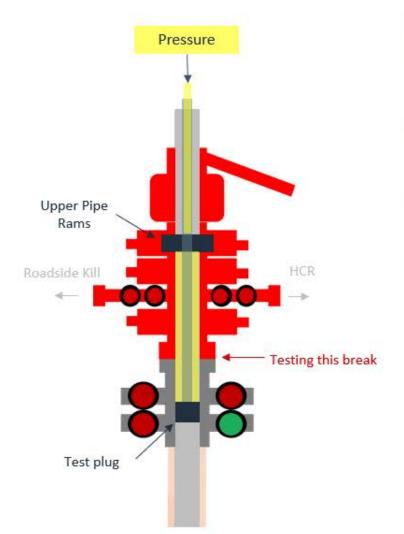
HCR

Testing this break

- 1. Set plug in wellhead (lower barrier)
- 2. Close Blind Rams (upper barrier)
- 3. Close roadside kill
- 4. Open HCR (pressure application)
- 5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- 6. Tie BOP testers high pressure line to main choke manifold crown valve
- 7. Pressure up to test break
- 8. Bleed test pressure from BOP testing unit

# **Break Test Diagram (Test Joint)**





#### Steps

- Set plug in with test joint wellhead (lower barrier)
- 2. Close Upper Pipe Rams (upper barrier)
- 3. Close roadside kill
- 4. Close HCR
- Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- Tie BOP testers high pressure line to top of test joint
- 7. Pressure up to test break
- Bleed test pressure from BOP testing unit



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#### **Cement Program**

1. No changes to the cement program will take place for offline cementing.

#### **Summarized Operational Procedure for Intermediate Casing**

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
  - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
- 2. Land production casing on mandrel hanger through BOP.
  - a. If casing is unable to be landed with a mandrel hanger, then the casing will be cemented online.
- 3. Break circulation and confirm no restrictions.
  - a. Ensure no blockage of float equipment and appropriate annular returns.
  - b. Perform flow check to confirm well is static.
- 4. Set pack-off
  - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
  - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
- 5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
  - a. Minimum 4 hrs notice.
- 6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
  - a. Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.
- 7. Skid/Walk rig off current well.
- 8. Confirm well is static before removing TA Plug.
  - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
  - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
  - c. Well control plan can be seen in Section B, Well Control Procedures.
  - d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.



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- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
- 9. Rig up return lines to take returns from wellhead to pits and rig choke.
  - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
  - b. If either test fails, perform corrections and retest before proceeding.
  - c. Return line schematics can be seen in Figure 3.
- 10. Remove TA Plug from the casing.
- 11. Install offline cement tool.
  - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
- 12. Rig up cement head and cementing lines.
  - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
- 13. Break circulation on well to confirm no restrictions.
  - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
  - b. Max anticipated time before circulating with cement truck is 6 hrs.
- 14. Pump cement job as per plan.
  - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
  - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
- 15. Confirm well is static and floats are holding after cement job.
  - a. With floats holding and backside static:
    - i. Remove cement head.
  - b. If floats are leaking:
    - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
  - c. If there is flow on the backside:
    - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
- 16. Remove offline cement tool.
- 17. Install night cap with pressure gauge for monitoring.
- 18. Test night cap to 5,000 psi for 10 min.



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#### **Example Well Control Plan Content**

#### A. Well Control Component Table

The table below, which covers the cementing of the <u>5M MASP (Maximum Allowable Surface Pressure) portion of the well</u>, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

| Component                | RWP |
|--------------------------|-----|
| Pack-off                 | 10M |
| Casing Wellhead Valves   | 10M |
| Annular Wellhead Valves  | 5M  |
| TA Plug                  | 10M |
| Float Valves             | 5M  |
| 2" 1502 Lo-Torque Valves | 15M |

#### **B.** Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

### **General Procedure While Circulating**

- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.

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- 6. Read and record the following:
  - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

#### **General Procedure While Cementing**

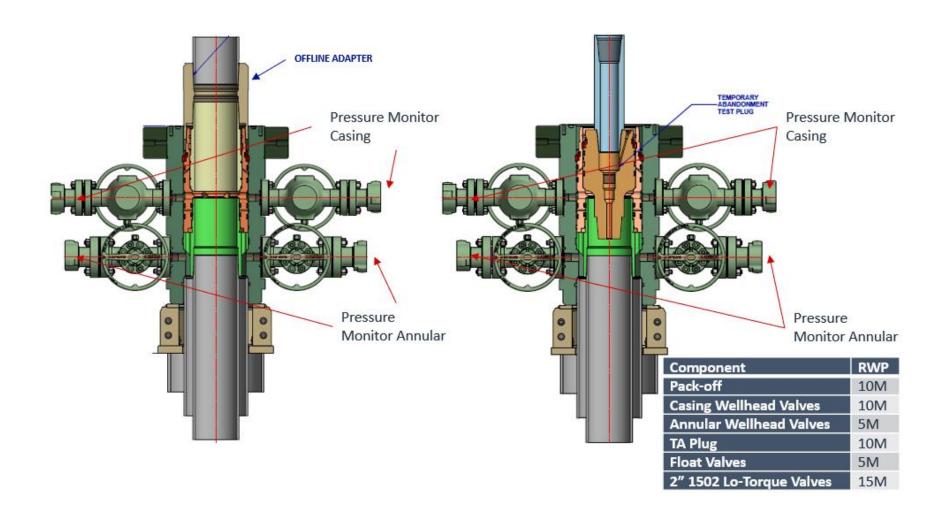
- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
- 7. Continue to place cement until plug bumps.
- 8. At plug bump close rig choke and cement head.
- 9. Read and record the following
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead

#### **General Procedure After Cementing**

- 1. Sound alarm (alert crew).
- 2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 3. Confirm shut-in.
- 4. Notify tool pusher/company representative.
- 5. Read and record the following:
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead

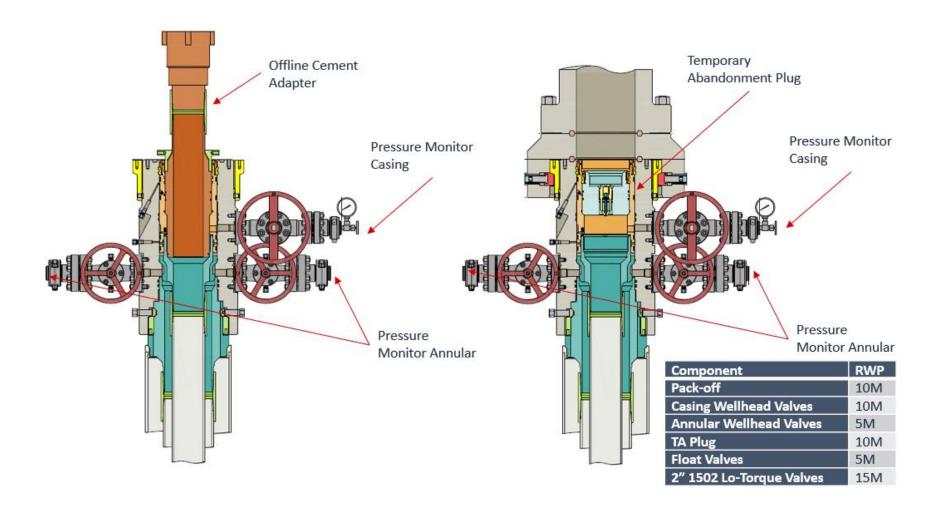
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Figure 1: Cameron TA Plug and Offline Adapter Schematic



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Figure 2: Cactus TA Plug and Offline Adapter Schematic

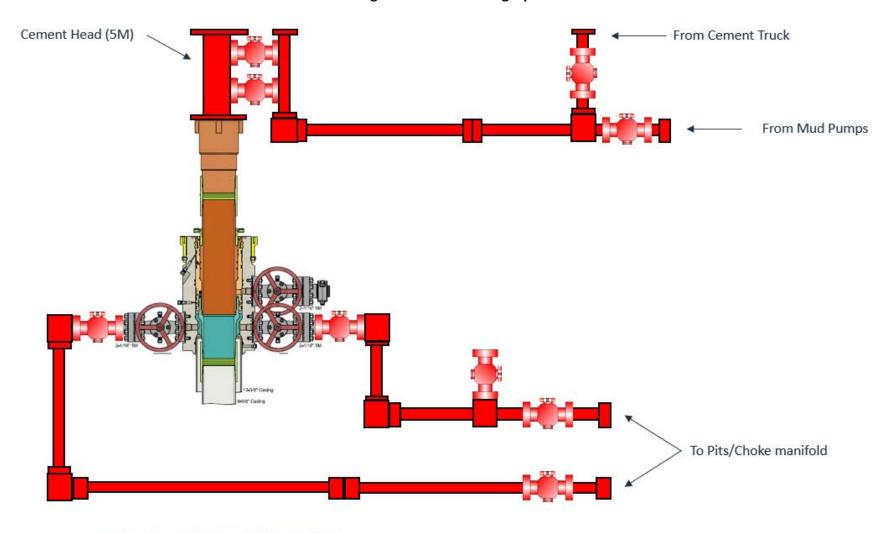


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Figure 3: Back Yard Rig Up



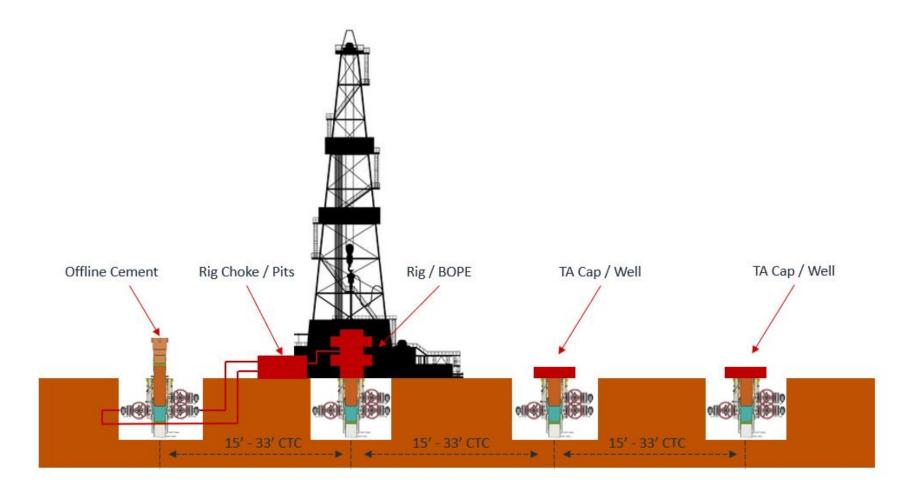
\*\*\* All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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

CONDITIONS

Action 355207

#### **CONDITIONS**

| Operator:            | OGRID:                               |
|----------------------|--------------------------------------|
| EOG RESOURCES INC    | 7377                                 |
| 5509 Champions Drive | Action Number:                       |
| Midland, TX 79706    | 355207                               |
|                      | Action Type:                         |
|                      | [C-103] NOI Change of Plans (C-103A) |

#### CONDITIONS

| Created<br>By | Condition                 | Condition<br>Date |
|---------------|---------------------------|-------------------|
| pkautz        | ALL PREVIOUS COA'S APPLY. | 6/28/2024         |