

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

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

## State of New Mexico

Form C-101  
Revised July 18, 2013

## Energy Minerals and Natural Resources

## Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

## APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

|  |  |   |
|--|--|---|
| <sup>1</sup> Operator Name and Address<br>EOG Resources, Inc.<br>P.O. Box 2267<br>Midland TX 79702 |  | <sup>2</sup> OGRID Number<br>7377       |
|  |  | <sup>3</sup> API Number<br>30-015-49406 |
| <sup>4</sup> Property Code<br>313840   | <sup>5</sup> Property Name<br>Deep Elem 16 State | <sup>6</sup> Well No.<br>1              |

## 7. Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| D        | 16      | 26S      | 31E   |         | 325       | North    | 550       | West     | Eddy   |

## 8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| D        | 16      | 26S      | 31E   |         | 325       | North    | 550       | West     | Eddy   |

## 9. Pool Information

| Pool Name     | Pool Code |
|---------------|-----------|
| Stratigraphic | 98210     |

## Additional Well Information

|                                     |   |  |                                   |   |
|-------------------------------------|---|--|-----------------------------------|---|
| <sup>11</sup> Work Type<br>New Well | <sup>12</sup> Well Type<br>Monitor      | <sup>13</sup> Cable/Rotary             | <sup>14</sup> Lease Type<br>State | <sup>15</sup> Ground Level Elevation<br>3220' |
| <sup>16</sup> Multiple<br>N         | <sup>17</sup> Proposed Depth<br>12,650' | <sup>18</sup> Formation<br>Wolfcamp    | <sup>19</sup> Contractor          | <sup>20</sup> Spud Date<br>4/19/2022          |
| Depth to Ground water               |   | Distance from nearest fresh water well |                                   | Distance to nearest surface water             |

☒ We will be using a closed-loop system in lieu of lined pits

## 21. Proposed Casing and Cement Program

| Type         | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|--------------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surface      | 16"       | 13.375"     | 54.5             | 1,350'        | 500             | 0             |
| Intermediate | 12.25"    | 9.625"      | 53.5             | 11,500'       | 1800            | 0             |
| Production   | 7.875"    | 5.5"        | 20               | 12,650'       | 200             | 11,000'       |

## Casing/Cement Program: Additional Comments

|  |
|--|
|  |
|--|

## 22. Proposed Blowout Prevention Program

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Double Ram | 5000             | 3000          |              |

|  |                                 |                  |
|--|---------------------------------|------------------|
| <sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br><b>I further certify that I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable.</b><br>Signature: | OIL CONSERVATION DIVISION       |                  |
|  | Approved By:                    |                  |
|  | Title:                          |                  |
|  | Approved Date:                  | Expiration Date: |
|  | Conditions of Approval Attached |                  |

|   |
|---|
| Printed name: Star L Harrell                  |
| Title: Sr Regulatory Specialist               |
| E-mail Address: star_harrell@eogresources.com |
| Date: 3/24/2022                               |
| Phone: 432-257-2428                           |

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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<br><b>30-015- 49406</b> | Pool Code<br><b>98210</b>                   | Pool Name<br><b>Stratigraphic Wolfcamp</b> |
| Property Code<br><b>313840</b>     | Property Name<br><b>DEEP ELEM 16 STATE</b>  | Well Number<br><b>1</b>                    |
| OGRID No.<br><b>7377</b>           | Operator Name<br><b>EOG RESOURCES, INC.</b> | Elevation<br><b>3220'</b>                  |

## Surface Location

|                           |                      |                         |                      |         |                             |                                  |                             |                               |                       |
|---------------------------|----------------------|-------------------------|----------------------|---------|-----------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|
| UL or lot no.<br><b>D</b> | Section<br><b>16</b> | Township<br><b>26 S</b> | Range<br><b>31 E</b> | Lot Idn | Feet from the<br><b>325</b> | North/South line<br><b>NORTH</b> | Feet from the<br><b>550</b> | East/West line<br><b>WEST</b> | County<br><b>EDDY</b> |
|---------------------------|----------------------|-------------------------|----------------------|---------|-----------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|

## Bottom Hole Location If Different From Surface

|                           |                      |                         |                      |         |                             |                                  |                             |                               |                       |
|---------------------------|----------------------|-------------------------|----------------------|---------|-----------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|
| UL or lot no.<br><b>D</b> | Section<br><b>16</b> | Township<br><b>26 S</b> | Range<br><b>31 E</b> | Lot Idn | Feet from the<br><b>325</b> | North/South line<br><b>NORTH</b> | Feet from the<br><b>550</b> | East/West line<br><b>WEST</b> | County<br><b>EDDY</b> |
| Dedicated Acres           | 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>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.</i></p> <p><i>Star L Harrell</i> 3/24/2022<br/>Signature Date</p> <p><b>Star L Harrell</b><br/>Print Name</p> <p><b>star_harrell@eogresources.com</b><br/>E-mail Address</p> |
|  | <p><b>SURVEYORS CERTIFICATION</b></p> <p><i>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.</i></p> <p><b>FEBRUARY 25, 2022</b><br/>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:<br/> </p>  |
|  | <p>Job No.: <b>EOG_B210058</b></p> <p><b>BRANDON A MOSER, N.M.P.L.S.</b></p> <p>Certificate Number <b>22502</b></p>   |
|  |   |



EOG Resources, Inc.  
P.O. Box 2267  
Midland, TX 79702

3/24/2022

This well will be used to monitor horizontal wells in the area. EOG does not plan to produce this well at this time. Please contact me if you have questions.

Thank you.  
Star

**Star Harrell – Sr Regulatory Specialist**

Direct Line (432) 848-9161

Cell Phone (432) 257-2428

[Star\\_Harrell@eogresources.com](mailto:Star_Harrell@eogresources.com)

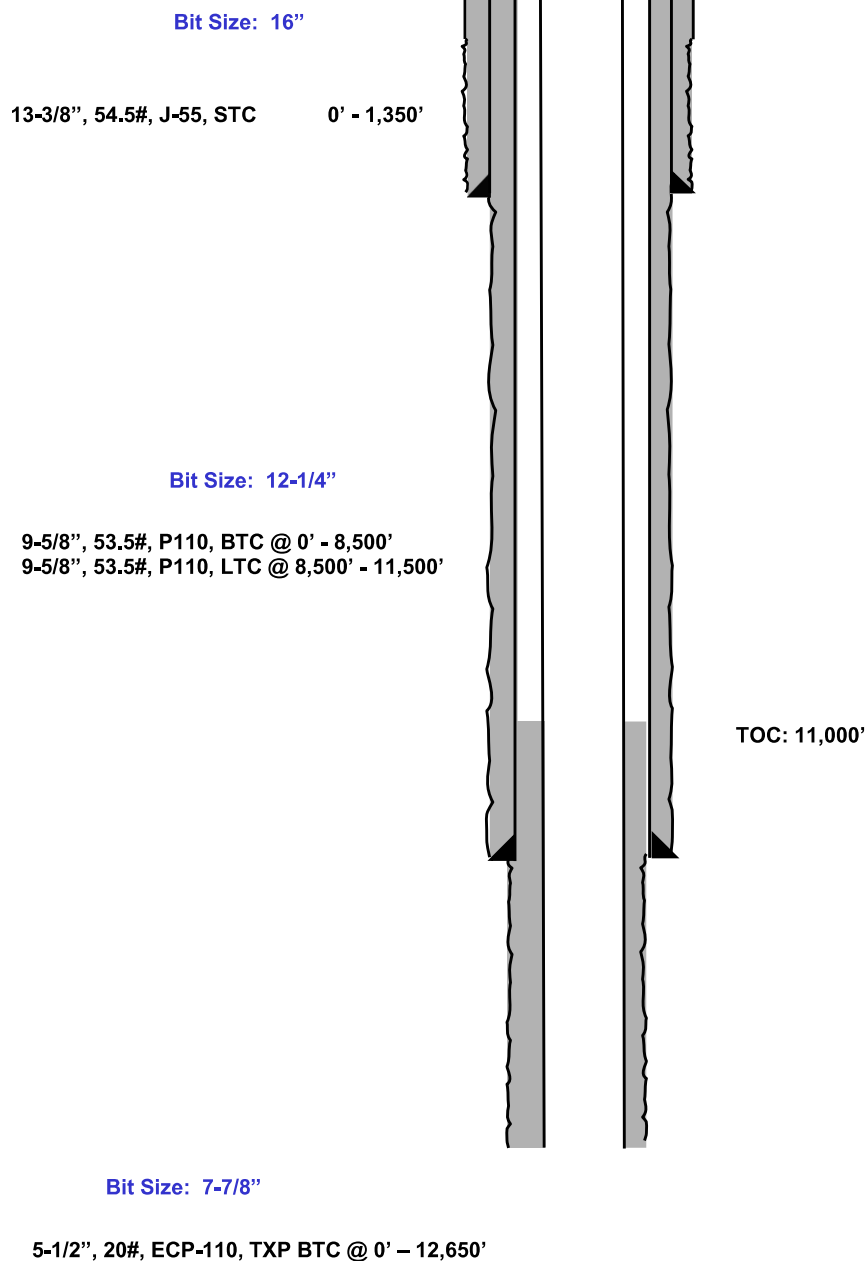
325' FNL  
550' FWL  
Section 16  
T-26-S, R-31-E

**Deep Elem 16 State #1**  
Eddy County, New Mexico

KB: 3,245'  
GL: 3,220'

**Proposed Wellbore  
Design A**

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



BH Location: 325' FNL & 550' FWL  
Section 16  
T-26-S, R-31-E

**EOG RESOURCES, INC.**  
**Deep Elem 16 State #1**

**Permit Information:**

Well Name: Deep Elem 16 State #1

**Location:**

SHL: 325' FNL & 550' FWL, Section 16, T-26-S, R-31-E, Eddy Co., N.M.

BHL: 325' FNL & 550' FWL, Section 16, T-26-S, R-31-E, Eddy 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 |
|-----------|------------------|---------|--------|---------|---------|----------------------------|-------------------------|---------------------------|
| 16"       | 0 – 1,350'       | 13.375" | 54.5#  | J-55    | STC     | 1.125                      | 1.25                    | 1.60                      |
| 12.25"    | 0' – 8,500'      | 9.625"  | 53.5#  | P-110   | BTC     | 1.125                      | 1.25                    | 1.60                      |
| 12.25"    | 8,500' – 11,500' | 9.625"  | 53.5#  | P-110   | LTC     | 1.125                      | 1.25                    | 1.60                      |
| 7.875"    | 0' -12,650'      | 5.5"    | 20#    | ECP-110 | TXP BTC | 1.125                      | 1.25                    | 1.60                      |

**Cement Program:**

| Depth   | No. Sacks | Wt. ppg | Yld Ft <sup>3</sup> /sk | Slurry Description   |
|---------|-----------|---------|-------------------------|--|
| 1,350'  | 400       | 13.5    | 1.73                    | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)        |
|         | 100       | 14.8    | 1.34                    | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate                                       |
| 11,500' | 400       | 14.2    | 1.11                    | 1 <sup>st</sup> Stage (Tail): Class C + 5% Salt + (TOC @ 7,000')   |
|         | 1,400     | 14.8    | 1.5                     | 2 <sup>nd</sup> Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface) |
| 12,650' | 200       | 14.2    | 1.31                    | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,000')                                 |

**Mud Program:**

| Depth             | Type        | Weight (ppg) | Viscosity | Water Loss |
|-------------------|-------------|--------------|-----------|------------|
| 0 – 1,350'        | Fresh - Gel | 8.6-8.8      | 28-34     | N/c        |
| 1,350' – 11,500'  | Enerlite    | 8.8-10.0     | 28-34     | N/c        |
| 11,500' – 13,000' | Oil Base    | 12.0-14.0    | 58-68     | 3 - 6      |

**EOG RESOURCES, INC.**  
**Deep Elem 16 State #1**  
**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.

- Mud program:

**EOG RESOURCES, INC.**

**Deep Elem 16 State #1**

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.

**Emergency Assistance Telephone List**

**PUBLIC SAFETY:**

**911 or**

**EOG RESOURCES, INC.****Deep Elem 16 State #1**

|                                 |                |
|---------------------------------|----------------|
| 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 |
| 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 Dominique | Cell (985) 518-5839 |
| Mike Vann       | Cell (817) 980-5507 |

**Drilling Engineer**

|                   |                     |
|-------------------|---------------------|
| Esteban Del Valle | Cell (432) 269-7063 |
|-------------------|---------------------|

**Drilling Manager**

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

**Drilling Superintendent**

|            |                     |
|------------|---------------------|
| Chris Hale | Cell (432) 215-5531 |
|------------|---------------------|

**H&P Drilling**

|              |                       |
|--------------|-----------------------|
| H&P Drilling | Office (432) 563-5757 |
|--------------|-----------------------|

**Tool Pusher:**

|                 |                     |
|-----------------|---------------------|
| Johnathan Craig | Cell (817) 760-6374 |
| Brad Garrett    |                     |

**Safety**

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



| Ops GEO & DATE<br>WELL NAMES:<br># of offsets | BFR 3/23/2022          | Deep Elem 16 State #1<br>Deep Elem Section 16 |       |      |
|---|------------------------|---|-------|------|
|   | 2                      | GL  | KB    |      |
|   |                        | 3220  | 3246  |      |
|   | Target Formation       | Prognosis                                     |       |      |
|   | Rustler                | SSD   | TVD   |      |
|   | Tamarisk Anhydrite     | 1938  | 1308  | 79   |
|   | Top of Salt            | 1694  | 1552  | 244  |
|   | Bottom of Salt         | -566  | 3812  | 2260 |
|   | Lamar                  | -768  | 4014  | 202  |
|   | Bell Canyon            | -808  | 4054  | 40   |
|   | Cherry Canyon          | -1768   | 5014  | 960  |
|   | Brushy Canyon          | -3037   | 6283  | 1269 |
|   | Bone Spring Lime       | -4714   | 7960  | 1677 |
|   | Leonard A              | -4822   | 8068  | 108  |
|   | Leonard B              | -5395   | 8641  | 573  |
|   | First Bone Spring Sand | -5665   | 8911  | 270  |
|   | SBSG Shale             | -5929   | 9175  | 264  |
|   | SBSG Sand              | -6310   | 9556  | 381  |
|   | TBSG Carb              | -6924   | 10170 | 614  |
|   | Third Bone Spring Sand | -7591   | 10837 | 667  |
|   | Wolfcamp               | -7994   | 11240 | 403  |
|   | Wfmp Classics X        | -8024   | 11270 | 30   |
|   | Wfmp Classics Y        | -8130   | 11376 | 106  |
|   | Wfmp U1                | -8169   | 11415 | 39   |
|   | Wfmp U2                | -8366   | 11612 | 197  |
|   | Wfmp U3                | -8536   | 11782 | 170  |
|   | Wfmp U4                | -8601   | 11847 | 65   |
|   | WFMP M1                | -8758   | 12004 | 157  |
|   | WFMP M2                | -9010   | 12256 | 252  |
|   | WFMP M3                | -9201   | 12447 | 191  |
|   | WFMP Lower             | -9324   | 12570 | 123  |

Deep Elem 16 State #1
AJG Grid
LP: 13,000' TVD vertical

**District I**

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 Phone:(575) 393-6161 Fax:(575) 393-0720

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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 93035

**CONDITIONS**

|  |   |
|--|---|
| Operator:<br>EOG RESOURCES INC<br>P.O. Box 2267<br>Midland, TX 79702 | OGRID:<br>7377  |
|  | Action Number:<br>93035                                   |
|  | Action Type:<br>[C-101] Drilling Non-Federal/Indian (APD) |

**CONDITIONS**

| Created By | Condition  | Condition Date |
|------------|--|----------------|
| kpickford  | Notify OCD 24 hours prior to casing & cement   | 3/28/2022      |
| 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 | 3/28/2022      |
| kpickford  | Cement is required to circulate on both surface and intermediate1 strings of casing  | 3/28/2022      |
| 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                  | 3/28/2022      |
| kpickford  | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud   | 3/28/2022      |