

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**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.*

|   |  |  |
|---|--|--|
| <b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>  |  | 5. Lease Serial No.<br>NMNM121473                                    |
|   |  | 6. If Indian, Allottee or Tribe Name                                 |
|   |  | 7. If Unit or CA/Agreement, Name and/or No.                          |
| 1. Type of Well<br><input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other                      | 8. Well Name and No.<br>HH SO 10 15 FED 002 6H         |  |
| 2. Name of Operator<br>CHEVRON USA INCORPORATED   | Contact: LAURA BECERRA<br>E-Mail: LBECERRA@CHEVRON.COM | 9. API Well No.<br>30-015-44367-00-X1                                |
| 3a. Address<br>6301 DEAUVILLE BLVD<br>MIDLAND, TX 79706   | 3b. Phone No. (include area code)<br>Ph: 402-883-7655  | 10. Field and Pool or Exploratory Area<br>PURPLE SAGE-WOLFCAMP (GAS) |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br><br>Sec 3 T26S R27E SWSW 314FSL 833FWL<br>32.064869 N Lat, 104.184265 W Lon |  | 11. County or Parish, State<br><br>EDDY COUNTY, NM                   |

**Carlsbad Field Office**  
**OCD Artesia**

12. CHECK THE 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"/> Hydraulic Fracturing | <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 checked="" type="checkbox"/> Other |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       | Drilling Operations                       |
|  | <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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Chevron respectfully requests to change the casing running plan to include a 7-5/8" 29.7# P-110 Liner set in previous casing from 8,966' to 10,050'. Please see attached 9-Point Plan for details.

RECEIVED

GC 9-17-18  
Accepted for record - NMOCD

SEP 14 2018

DISTRICT II-ARTESIA O.C.D.

|  |                             |
|--|-----------------------------|
| 14. I hereby certify that the foregoing is true and correct.<br><b>Electronic Submission #434574 verified by the BLM Well Information System<br/>For CHEVRON USA INCORPORATED, sent to the Carlsbad<br/>Committed to AFMSS for processing by ZOTA STEVENS on 09/11/2018 (18ZS0144SE)</b> |                             |
| Name (Printed/Typed) LAURA BECERRA   | Title PERMITTING SPECIALIST |
| Signature (Electronic Submission)  | Date 09/10/2018             |

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

|   |                                 |                        |
|---|---------------------------------|------------------------|
| Approved By <u>ZOTA STEVENS</u>   | Title <u>PETROLEUM ENGINEER</u> | Date <u>09/11/2018</u> |
| 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 <u>Carlsbad</u> |

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.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**Delaware Basin  
Changes to APD/COA for Federal  
Well**



**Well Info:**

| Well Name              | API Number |
|------------------------|------------|
| HH SO 10 15 FED 002 6H | 3001544367 |

**Rig: Patterson 815**

**Chevron Contact:**

**Brett Herman**

Drilling & Completions Engineer  
Chevron Mid-Continent Business Unit  
Drilling & Completions

Cell: (832) 457-0778

Email: [brett.herman@chevron.com](mailto:brett.herman@chevron.com)

## **Summary of Changes to APD Submission**

Chevron respectfully requests to change the casing running plan to include a 7-5/8" 29.7# P-110 Liner set in previous casing from 8,966' to 10,050'. Please see attached 9-Point Plan for details.

## **Changes Summary**

**Summary:** Run a 7-5/8" 29.7# P-110 Liner set in previous casing from 8,966' to 10,050'. Please see attached 9-Point Plan for details.

| FORMATION                   | SUB-SEA TVD | KBTVD   | MD      |
|-----------------------------|-------------|---------|---------|
| Castille                    |             | 1083    |         |
| Lamar                       |             | 2276    |         |
| Bell                        |             | 2330    |         |
| Cherry                      |             | 3118    |         |
| Brushy                      |             | 4177    |         |
| Bone Spring/Avalon          |             | 5919    |         |
| First Bone Spring Sand      |             | 6667    |         |
| Second Bone Spring Sand     |             | 7149    |         |
| Third Bone Spring Carbonate |             | 8600    |         |
| Third Bone Spring Sand      |             | 8651    |         |
| Wolfcamp A                  |             | 9008    |         |
| Wolfcamp C                  |             | 9769    |         |
| Wolfcamp D                  |             | 9920    |         |
|                             |             |         |         |
|                             |             |         |         |
| Lateral TVD Wolfcamp D      |             | 10,112' | 20,485' |

#### 4. CASING PROGRAM

| Purpose            | From   | To      | Hole Size | Csg Size  | Weight    | Grade           | Thread          | Condition |
|--------------------|--------|---------|-----------|-----------|-----------|-----------------|-----------------|-----------|
| Surface            | 0'     | 450'    | 17-1/2"   | 13-3/8"   | 54.5 #    | K-55            | STC             | New       |
| Intermediate       | 0'     | 9,266'  | 12-1/4"   | 9-5/8"    | 43.5 #    | L-80            | LTC             | New       |
| Intermediate Liner | 8,966' | 10,050' | 8-1/2"    | 7-5/8"    | 29.7 #    | P-110           | TSH513          | New       |
| Production         | 0'     | 20,485' | 6-3/4"    | 5-1/2"x5" | 20# x 18# | P-110 x P-110IC | TXP x Wedge 521 | New       |

#### SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 450'

Intermediate Casing: 10370

Intermediate Liner: 10405

Production Casing: 21,291 MD / 10,388' TVD

| Casing String      | Min SF Burst | Min SF Collapse | Min SF Tension | Min SF Tri-Axial |
|--------------------|--------------|-----------------|----------------|------------------|
| Surface            | 1.41         | 5.09            | 3.56           | 1.54             |
| Intermediate       | 1.2          | 1.74            | 1.81           | 1.29             |
| Intermediate Liner | 2.33         | 2.07            | 2.11           | 2.72             |
| Production         | 1.11         | 1.7             | 1.71           | 1.2              |

|  | Surf | Int | Int Liner | Prod |
|--|------|-----|-----------|------|
| <b>Burst Design</b>  |      |     |           |      |
| Pressure Test- Surface, Int, Prod Csg<br>P external: Water<br>P internal: Test psi + next section heaviest mud in csg  | X    | X   | X         | X    |
| Displace to Gas- Surf Csg<br>P external: Water<br>P internal: Dry Gas from Next Csg Point                              | X    |     |           |      |
| Frac at Shoe, Gas to Surf- Int Csg<br>P external: Water<br>P internal: Dry Gas, 15 ppg Frac Gradient                   |      | X   | X         |      |
| Stimulation (Frac) Pressures- Prod Csg<br>P external: Water<br>P internal: Max inj pressure w/ heaviest injected fluid |      |     |           | X    |
| Tubing leak- Prod Csg (packer at KOP)<br>P external: Water<br>P internal: Leak just below surf, 8.7 ppg packer fluid   |      |     |           | X    |
| <b>Collapse Design</b>   |      |     |           |      |
| Full Evacuation<br>P external: Water gradient in cement, mud above TOC<br>P internal: none                             | X    | X   | X         | X    |
| Cementing- Surf, Int, Prod Csg<br>P external: Wet cement<br>P internal: water  | X    | X   | X         | X    |
| <b>Tension Design</b>  |      |     |           |      |
| 100k lb overpull   | X    | X   | X         | X    |

5. CEMENTING PROGRAM

| Slurry | Type    | Cement Top | Cement Bottom | Weight | Yield | %Excess | Sacks | Water |
|--------|---------|------------|---------------|--------|-------|---------|-------|-------|
| Tail   | Class H | 8,966'     | 10,050'       | 15.6   | 1.2   | 35      | 163   | 5.39  |

6. MUD PROGRAM

| From    | To                 | Type | Weight      | F. Visc | Filtrate |
|---------|--------------------|------|-------------|---------|----------|
| 9,300'  | 10,050'            | OBM  | 12.5 - 14.4 | 50 -70  | 5.0 - 10 |
| 10,050' | <del>20,815'</del> | OBM  | 12.5 - 14.4 | 50 -70  | 5.0 - 10 |