Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
JUL 11 2019
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-45794

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Adams State

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 15H

2. Name of Operator: Cimarex Energy Co. of Colorado

9. OGRID Number 162683

3. Address of Operator: 600 N. Marienfeld, Ste 600; Midland, Tx 79701

10. Pool name or Wildcat: Wildcat Bone Spring

4. Well Location
Unit Letter I : 1996 feet from the South line and 1031 feet from the East line
Section 6 Township 21S Range 33E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3802

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | [ ] | PLUG AND ABANDON | [ ] | REMEDIAL WORK | [ ] | ALTERING CASING | [ ] |
| TEMPORARILY ABANDON | [ ] | CHANGE PLANS | [X] | COMMENCE DRILLING OPNS. | [ ] | P AND A | [ ] |
| PULL OR ALTER CASING | [ ] | MULTIPLE COMPL | [ ] | CASING/CEMENT JOB | [ ] | | |
| DOWNHOLE COMMINGLE | [ ] | | | | | | |
| CLOSED-LOOP SYSTEM | [ ] | | | | | | |
| OTHER: | [ ] | | | OTHER: | | | [ ] |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Cimarex respectfully requests approval to change the casing and cement design for the production string as shown below:

Tapered Prod Csg - 7" 29# L8- LT&C set from Surface to 11033' and 5 1/2" 17# L-80 BT&C set from 11033' to 18379'. Cement with: LEAD- 526 sks, 10.3lbs, 3.64 yield Tuned Light + LCM. TAIL-1063 sks, 14.2lbs, 1.3 yield 50:50 POZ H.

Please see attached drilling plan.

Spud Date: ° Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Analyst DATE 7/11/2019

Type or print name Amithy Crawford E-mail address: acrawford@cimarex.com PHONE: 432- 620-1909

**For State Use Only**

APPROVED BY: [signature] TITLE Petroleum Engineer DATE 07/12/19

Conditions of Approval (if any):

## 1. Geological Formations

TVD of target 11,630
MD at TD 18,379

Pilot Hole TD N/A
Deepest expected fresh water

| Formation | Depth (TVD) from KB | Water/Mineral Bearing/Target Zone | Hazards |
|---|---|---|---|
| Rustler | 1605 | N/A | |
| Top Salt | 1700 | N/A | |
| Base Salt | 3680 | N/A | |
| Yates | 3858 | N/A | |
| Capitan | 4250 | N/A | |
| Delaware Sands | 5446 | Hydrocarbons | |
| 1st Bone Spring | 9823 | Hydrocarbons | |
| 2nd Bone Spring | 10378 | Hydrocarbons | |
| 3rd Bone Spring | 11290 | Hydrocarbons | |

## 2. Casing Program

| Hole Size | Casing Depth From | Casing Depth To | Setting Depth TVD | Casing Size | Weight (lb/ft) | Grade | Conn. | SF Collapse | SF Burst | SF Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 1/2 | 0 | 1655 | 1655 | 13-3/8" | 54.50 | J-55 | BT&C | 1.49 | 3.62 | 9.46 |
| 12 1/4 | 0 | 5426 | 5426 | 9-5/8" | 40.00 | J-55 | LT&C | 1.25 | 1.37 | 2.40 |
| 8 3/4 | 0 | 11033 | 11033 | 7" | 29.00 | L-80 | LT&C | 1.36 | 1.58 | 2.97 |
| 8 3/4 | 11033 | 18379 | 11630 | 5-1/2" | 17.00 | L-80 | BT&C | 1.16 | 1.42 | 39.12 |
| | | | | | BLM Minimum Safety Factor | | | 1.125 | 1 | 1.6 Dry<br>1.8 Wet |

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

| | Y or N |
|---|---|
| Is casing new? If used, attach certification as required in Onshore Order #1 | Y |
| Does casing meet API specifications? If no, attach casing specification sheet. | Y |
| Is premium or uncommon casing planned? If yes attach casing specification sheet. | N |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | Y |
| Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing? | Y |
| Is well located within Capitan Reef? | N |
| If yes, does production casing cement tie back a minimum of 50' above the Reef? | N |
| Is well within the designated 4 string boundary. | N |
| Is well located in SOPA but not in R-111-P? | N |
| If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing? | N |
| Is well located in R-111-P and SOPA? | N |
| If yes, are the first three strings cemented to surface? | N |
| Is 2nd string set 100' to 600' below the base of salt? | N |
| Is well located in high Cave/Karst? | N |
| If yes, are there two strings cemented to surface? | N |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs? | N |
| Is well located in critical Cave/Karst? | N |
| If yes, are there three strings cemented to surface? | N |
| Is AC Report included? | N |

### 3. Cementing Program

| Casing | # Sks | Wt. lb/gal | Yld ft3/sack | H2O gal/sk | 500# Comp. Strength (hours) | Slurry Description |
|---|---|---|---|---|---|---|
| **Surface** | 802 | 13.50 | 1.72 | 9.15 | 15.5 | Lead: Class C + Bentonite |
| | 215 | 14.80 | 1.34 | 6.32 | 9.5 | Tail: Class C + LCM |
| | | | | | | |
| **Intermediate** | 1013 | 12.90 | 1.88 | 9.65 | 12 | Lead: 35:65 (Poz:C) + Salt + Bentonite |
| | 292 | 14.80 | 1.34 | 6.32 | 9.5 | Tail: Class C + LCM |
| | | | | | | |
| **Production** | 526 | 10.30 | 3.64 | 22.18 | | Lead: Tuned Light + LCM |
| | 1063 | 14.20 | 1.30 | 5.86 | 14:30 | Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS |
| | | | | | | |

| Casing String | TOC | % Excess |
|---|---|---|
| Surface | 0 | 45 |
| Intermediate | 0 | 51 |
| Production | 0 | 25 |

## 4. Pressure Control Equipment

| | |
|---|---|
| | A variance is requested for the use of a diverter on the surface casing. See attached for schematic. |

| BOP installed and tested before drilling which hole? | Size | Min Required WP | Type | | Tested To |
|---|---|---|---|---|---|
| 12 1/4 | 13 5/8 | 2M | Annular | X | 50% of working pressure |
| | | | Blind Ram | | 2M |
| | | | Pipe Ram | | |
| | | | Double Ram | X | |
| | | | Other | | |
| 8 3/4 | 13 5/8 | 3M | Annular | X | 50% of working pressure |
| | | | Blind Ram | | 3M |
| | | | Pipe Ram | | |
| | | | Double Ram | X | |
| | | | Other | | |

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

| | | |
|---|---|---|
| | | Formation integrity test will be performed per Onshore Order #2.<br>On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |
| X | | A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart. |
| | N | Are anchors required by manufacturer? |

## 5. Mud Program

| Depth | Type | Weight (ppg) | Viscosity | Water Loss |
|---|---|---|---|---|
| 0' to 1655' | FW Spud Mud | 8.30 - 8.80 | 30-32 | N/C |
| 1655' to 5426' | Brine Water | 9.70 - 10.20 | 30-32 | N/C |
| 5426' to 18379' | FW/Cut Brine | 8.50 - 9.00 | 30-32 | N/C |

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

| | |
|---|---|
| What will be used to monitor the loss or gain of fluid? | PVT/Pason/Visual Monitoring |

## 6. Logging and Testing Procedures

| Logging, Coring and Testing | |
|---|---|
| X | Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM. |
| | No logs are planned based on well control or offset log information. |
| | Drill stem test? |
| | Coring? |

| Additional Logs Planned | Interval |
|---|---|

## 7. Drilling Conditions

| Condition | |
|---|---|
| BH Pressure at deepest TVD | 5442 psi |
| Abnormal Temperature | No |

| Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM. | |
|---|---|
| X | H2S is present |
| X | H2S plan is attached |

## 8. Other Facets of Operation

## 9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

The casing string utilizing steel body pack-off will be tested to 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.