# Sundry Print Report

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

COM

Well Name: HAFLINGER 22-27 FED Well Location: T25S / R32E / SEC 22 /

NENW / 32.1226807 / -103.6656409

County or Parish/State: LEA /

NM

Well Number: 125H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMLC062300 Unit or CA Name: Unit or CA Number:

US Well Number: 3002554293 Operator: DEVON ENERGY

PRODUCTION COMPANY LP

#### **Notice of Intent**

**Sundry ID: 2840479** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/06/2025 Time Sundry Submitted: 02:24

Date proposed operation will begin: 03/06/2025

**Procedure Description:** Devon Energy Production Co., L.P. (Devon) respectfully requests a drilling plan change for the subject well. Devon also requests break test with stump and offline cementing variances. Please see revised drill plan and variance attachments.

## **NOI Attachments**

#### **Procedure Description**

Offline\_Cementing\_\_\_Variance\_Request\_20250306142405.pdf

Break\_Test\_Variance\_Offline\_BOP\_2\_3\_2025\_20250306142352.pdf

5.5\_20lb\_P110HP\_CDC\_HTQ\_20250306142337.pdf

8.625\_32lb\_P110\_HP\_TALON\_RD\_20250306142321.pdf

10.75\_45.5lb\_J55\_BTC\_20250306142300.pdf

HAFLINGER\_22\_27\_FED\_COM\_125H\_3\_6\_20250306142230.pdf

eiyed by OCD: 3/25/2025 1:36:26 PM Well Name: HAFLINGER 22-27 FED

COM

Well Location: T25S / R32E / SEC 22 / NENW / 32.1226807 / -103.6656409

County or Parish/State: LEA/

Well Number: 125H

Type of Well: OIL WELL

**Allottee or Tribe Name:** 

Lease Number: NMLC062300

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number:** 3002554293

**Operator: DEVON ENERGY** PRODUCTION COMPANY LP

# **Conditions of Approval**

#### **Specialist Review**

Haflinger 22 27 Fed Com 125H Sundry ID 2840479 20250324130935.pdf

## **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

**Operator Electronic Signature: AMY BROWN** Signed on: MAR 06, 2025 02:24 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Professional

Street Address: 333 WEST SHERIDAN AVENUE

City: OKLAHOMA CITY State: OK

Phone: (405) 552-6137

Email address: AMY.BROWN@DVN.COM

#### **Field**

**Representative Name:** 

**Street Address:** 

City: State: Zip:

Phone:

**Email address:** 

#### **BLM Point of Contact**

**BLM POC Name: LONG VO BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5759885402 BLM POC Email Address: LVO@BLM.GOV

**Disposition:** Approved Disposition Date: 03/24/2025

Signature: Long Vo

Page 2 of 2

Form 3160-5 (June 2019)

## UNITED STATES DEPARTMENT OF THE INTERIOR

| FORM APPROVED             |
|---------------------------|
| OMB No. 1004-0137         |
| Expires: October 31, 2021 |

| BURI   | 5. Lease Serial No.   |                       |                 |                                 |          |                                     |
|--|---|-----------------------|-----------------|---------------------------------|----------|-------------------------------------|
| Do not use this t  | IOTICES AND REPORTS Of<br>form for proposals to drill of<br>Use Form 3160-3 (APD) for | or to re-e            | enter an        | 6. If Indian, Allottee or Trib  | e Name   |                                     |
| SUBMIT IN T  | TRIPLICATE - Other instructions on  | n page 2              | -               | 7. If Unit of CA/Agreement      | , Name a | and/or No.                          |
| 1. Type of Well Oil Well Gas W   | _   | 8. Well Name and No.  |                 |                                 |          |                                     |
| 2. Name of Operator  |   |                       |                 | 9. API Well No.                 |          |                                     |
| 3a. Address  | ) 10. Field and Pool or Explo   | ratory A              | геа             |                                 |          |                                     |
| 4. Location of Well (Footage, Sec., T.,R   | .,M., or Survey Description)  |                       |                 | 11. Country or Parish, State    |          |                                     |
| 12. CHE  | CK THE APPROPRIATE BOX(ES) TO   | O INDICAT             | E NATURE        | OF NOTICE, REPORT OR O          | THER [   | DATA                                |
| TYPE OF SUBMISSION   |   |                       | TYF             | PE OF ACTION                    |          |                                     |
| Notice of Intent   |   | Deepen<br>Hydraulic F | Fracturing      | Production (Start/Resumo        | e)       | Water Shut-Off Well Integrity       |
| Subsequent Report  |   | New Constr            |                 | Recomplete                      |          | Other                               |
| Subsequent Report  | Change Plans  | Plug and Al           | bandon          | Temporarily Abandon             |          |                                     |
| Final Abandonment Notice   | Convert to Injection  | Plug Back             |                 | Water Disposal                  |          |                                     |
| is ready for final inspection.)  | tices must be filed only after all require  |                       |                 |                                 |          |                                     |
| 14. I hereby certify that the foregoing is   | true and correct. Name (Printed/Typed   |                       |                 |                                 |          |                                     |
|  |   | Title                 |                 |                                 |          |                                     |
| Signature  |   | Date                  |                 |                                 |          |                                     |
|  | THE SPACE FOR F   | EDERA                 | L OR ST         | ATE OFICE USE                   |          |                                     |
| Approved by  |   |                       |                 |                                 |          |                                     |
| Conditions of approval, if any, are attackertify that the applicant holds legal or ewhich would entitle the applicant to con | equitable title to those rights in the subj   |                       | Title<br>Office |                                 | Date     |                                     |
| Title 18 U.S.C Section 1001 and Title 43   | 3 U.S.C Section 1212, make it a crime   | for any pers          | son knowing     | ly and willfully to make to any | departm  | nent 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)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

#### **Additional Information**

#### **Location of Well**

0. SHL: NENW / 200 FNL / 1810 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.1226807 / LONG: -103.6656409 ( TVD: 0 feet, MD: 0 feet ) PPP: NENW / 100 FNL / 2150 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.122957 / LONG: -103.664542 ( TVD: 8636 feet, MD: 8666 feet ) PPP: SENW / 1460 FNL / 2155 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.1046946 / LONG: -103.6645293 ( TVD: 10113 feet, MD: 16500 feet ) PPP: NESW / 2516 FSL / 2152 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.1011216 / LONG: -103.6645275 ( TVD: 10134 feet, MD: 17800 feet ) BHL: SESW / 20 FSL / 2150 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.09426 / LONG: -103.664524 ( TVD: 10175 feet, MD: 20297 feet )

#### **Offline Cementing**

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

#### **Section 2 - Blowout Preventer Testing Procedure**

Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. The initial BOP test will follow 43 CFR 3172, and subsequent tests following a skid will only test connections that are broken. This test will at minimum include the Top Pipe Ram, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and BOP shell of the 10M BOPE to 5M for 10 minutes. Additional pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections. This variance will meet or exceed 43 CFR 3172 per the following: Devon Energy will perform a full BOP test per 43 CFR 3172 before drilling out of the intermediate casing string(s) and starting the production hole, testing the Annular during initial BOP testing to a minimum of 70% RWP and higher than MASP, and pressure testing at a 21-day interval frequency. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event break testing is not utilized, then a full BOPE test would be conducted.

Devon Energy requests to perform offline BOP stump testing and offline BOPE testing. All pressure-containing and pressure-controlling seals will be tested either online or offline as denoted in the table below and per BLM approval during initial BOP test following test pressure requirements set forth in 43 CFR 3172. Remaining components not tested offline or on the stump will be tested within 72-hours when the BOP is connected to the wellhead. If stump testing exceeds 72-hour window prior to connecting to the wellhead, the BLM will be notified and either stump testing restarted, or the BOP being tested online. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event stump testing is not utilized, then a full BOPE test would be conducted.

| Components  | Offline | Offline, BOPE | Break | Online |
|---|---------|---------------|-------|--------|
| Upper Rams  |         | X             | X     | Х      |
| Blind Rams  |         | Х             |       | Х      |
| Lower Rams  |         |               |       | X      |
| Outside Kill Valve  |         | X             | X     | X      |
| Inside Kill Valve   |         | X             | X     | X      |
| Kill Line Check Valve                                       |         | Х             | Х     | Х      |
| Inside Choke Valve  |         | Х             | Х     | Х      |
| HCR   |         | X             | X     | X      |
| Kill Line   | X       |               |       | X      |
| Annular   |         | X             |       | X      |
| Choke Manifold Valves and Hose                              | Χ       |               |       | X      |
| Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line) | Х       |               |       | X      |
| Standpipe Valve   | Х       |               |       | X      |
| IBOP (Upper and Lower)                                      | X       |               |       | X      |

Devon requests offline BOPE testing for the following components: Upper Rams, Blind Rams, Kill Valves, Choke Valves, and Annular Remaining well control equipment components will either be tested offline or online, per BLM approval

Remaining BOPE will be tested online within 72-hours form completing the offline BOPE component testing

Notify the BLM if the online BOPE testing exceeds 72-hours

All Full Tests not completed "Offline" or "Offline, BOPE" are required to be complete Online

Devon requests Break testing as stated above for 5K tests, not including production hole

 $Annular\ Preventer\ will\ be\ tested\ to\ minimum\ of\ 70\%\ RWP\ and\ higher\ than\ MASP\ during\ initial\ BOP\ test$ 

Pressure testing is required for pressure-containing connections if the integrity of a pressure seal is broken during a break test Full Tests required when entering production hole



2/21/2024 7:47:29 AM



# U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall)

# P110 HP USS-CDC HTQ®

|                                   |         | Y                        |            |   |
|-----------------------------------|---------|--------------------------|------------|---|
| MECHANICAL PROPERTIES             | Pipe    | USS-CDC HTQ <sup>®</sup> |            |   |
| Minimum Yield Strength            | 125,000 |                          | psi        |   |
| Maximum Yield Strength            | 140,000 |                          | psi        |   |
| Minimum Tensile Strength          | 130,000 |                          | psi        |   |
| DIMENSIONS                        | Pipe    | USS-CDC HTQ <sup>®</sup> |            |   |
| Outside Diameter                  | 5.500   | 6.300                    | in.        |   |
| Wall Thickness                    | 0.361   |                          | in.        |   |
| Inside Diameter                   | 4.778   | 4.778                    | in.        |   |
| Standard Drift                    | 4.653   | 4.653                    | in.        |   |
| Alternate Drift                   |         |                          | in.        |   |
| Nominal Linear Weight, T&C        | 20.00   |                          | lb/ft      |   |
| Plain End Weight                  | 19.83   |                          | lb/ft      |   |
| SECTION AREA                      | Pipe    | USS-CDC HTQ <sup>®</sup> |            |   |
| Critical Area                     | 5.828   | 5.828                    | sq. in.    |   |
| Joint Efficiency                  |         | 97.0                     | %          |   |
| PERFORMANCE                       | Pipe    | USS-CDC HTQ <sup>®</sup> |            |   |
| Minimum Collapse Pressure         | 13,150  | 13,150                   | psi        |   |
| External Pressure Leak Resistance |         | 10,520                   | psi        |   |
| Minimum Internal Yield Pressure   | 14,360  | 14,360                   | psi        |   |
| Minimum Pipe Body Yield Strength  | 729,000 |                          | lb         |   |
| Joint Strength                    |         | 707,000                  | lb         |   |
| Compression Rating                |         | 424,000                  | lb         |   |
| Reference Length                  |         | 23,567                   | ft         |   |
| Maximum Uniaxial Bend Rating      |         | 60.6                     | deg/100 ft |   |
| MAKE-UP DATA                      | Pipe    | USS-CDC HTQ <sup>®</sup> |            | - |
| Make-Up Loss                      |         | 4.63                     | in.        |   |
| Minimum Make-Up Torque            |         | 14,500                   | ft-lb      |   |
| Maximum Make-Up Torque            |         | 20,500                   | ft-lb      |   |
| Connection Yield Torque           |         | 25,300                   | ft-lb      |   |

#### **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
- 2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 4. Reference length is calculated by joint strength divided by nominal threaded and coupled weight with 1.5 safety factor.
- 5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Cal II.

#### **Legal Notice**

USS - CDC HTQ<sup>®</sup> (High Torque Casing Drilling Connection) is a trademark of U. S. Steel Corporation. This product is a modified API Buttress threaded and coupled connection designed for drilling with casing applications. All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

8/13/2024 10:39:15 AM

# U. S. Steel Tubular Products 8.625" 32.00lb/ft (0.352" Wall)

# P110 HP USS-TALON HTQ™ RD

| MECHANICAL PROPERTIES            | Pipe      | USS-TALON HTQ™ RD |            | [6] |
|----------------------------------|-----------|-------------------|------------|-----|
| Minimum Yield Strength           | 125,000   |                   | psi        |     |
| Maximum Yield Strength           | 140,000   |                   | psi        |     |
| Minimum Tensile Strength         | 130,000   |                   | psi        |     |
| DIMENSIONS                       | Pipe      | USS-TALON HTQ™ RD |            |     |
| Outside Diameter                 | 8.625     | 9.000             | in.        |     |
| Wall Thickness                   | 0.352     |                   | in.        |     |
| Inside Diameter                  | 7.921     | 7.921             | in.        |     |
| Standard Drift                   | 7.796     | 7.796             | in.        |     |
| Alternate Drift                  | 7.796     | 7.875             | in.        |     |
| Nominal Linear Weight, T&C       | 32.00     |                   | lb/ft      |     |
| Plain End Weight                 | 31.13     |                   | lb/ft      |     |
| SECTION AREA                     | Pipe      | USS-TALON HTQ™ RD |            |     |
| Critical Area                    | 9.149     | 9.149             | sq. in.    |     |
| Joint Efficiency                 |           | 100.0             | %          | [2] |
| PERFORMANCE                      | Pipe      | USS-TALON HTQ™ RD |            |     |
| Minimum Collapse Pressure        | 4,530     | 4,530             | psi        |     |
| Minimum Internal Yield Pressure  | 8,930     | 8,930             | psi        |     |
| Minimum Pipe Body Yield Strength | 1,144,000 |                   | lb         |     |
| Joint Strength                   |           | 1,144,000         | lb         |     |
| Compression Rating               |           | 1,144,000         | lb         |     |
| Reference Length                 |           | 23,830            | ft         | [5] |
| Maximum Uniaxial Bend Rating     |           | 66.4              | deg/100 ft | [3] |
| MAKE-UP DATA                     | Pipe      | USS-TALON HTQ™ RD |            |     |
| Make-Up Loss                     |           | 5.58              | in.        |     |
| Minimum Make-Up Torque           |           | 22,300            | ft-lb      | [4] |
| Maximum Make-Up Torque           |           | 25,300            | ft-lb      | [4] |
| Maximum Operating Torque         |           | 111,500           | ft-lb      | [4] |

#### **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bend rating shown is structural only.
- 4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

#### **Legal Notice**

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com



| <u>10-3/4"</u>              | <u>45.50#</u>                  | 0.400"          | <u>J-55</u> |          |  |  |  |  |
|-----------------------------|--------------------------------|-----------------|-------------|----------|--|--|--|--|
| <u>Dimensions (Nominal)</u> |                                |                 |             |          |  |  |  |  |
| Outside Diameter            |                                |                 | 10.750      | in.      |  |  |  |  |
| Wall                        |                                |                 | 0.400       | in.      |  |  |  |  |
| <b>Inside Diameter</b>      |                                |                 | 9.950       | in.      |  |  |  |  |
| Drift                       |                                |                 | 9.875       | in.      |  |  |  |  |
| Weight, T&C                 |                                |                 | 45.500      | lbs/ft   |  |  |  |  |
| Weight, PE                  |                                |                 | 44.260      | lbs/ft   |  |  |  |  |
| <u>Performance</u>          | <u>Properties</u>              |                 |             |          |  |  |  |  |
| Collapse                    |                                |                 | 2090        | psi      |  |  |  |  |
| Internal Yield Press        | sure at Minimum Yield          |                 |             |          |  |  |  |  |
|                             | PE                             |                 | 3580        | psi      |  |  |  |  |
|                             | STC                            |                 | 3580        | psi      |  |  |  |  |
|                             | ВТС                            |                 | 3580        | psi      |  |  |  |  |
| Yield Strength, Pipe        | e Body                         |                 | 715         | 1000 lbs |  |  |  |  |
| Joint Strength              |                                |                 |             |          |  |  |  |  |
|                             | STC                            |                 | 493         | 1000 lbs |  |  |  |  |
|                             | ВТС                            |                 | 796         | 1000 lbs |  |  |  |  |
|                             | <b>BTC Special Clearance (</b> | 11.25" OD Cplg) | 506         | 1000 lbs |  |  |  |  |

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

#### HAFLINGER 22-27 FED COM 125H

#### 1. Geologic Formations

| TVD of target | 10196 | Pilot hole depth             | N/A |
|---------------|-------|------------------------------|-----|
| MD at TD:     | 20342 | Deepest expected fresh water |     |

#### Basin

| Dasin                |         |                |          |
|----------------------|---------|----------------|----------|
|                      | Depth   | Water/Mineral  |          |
| Formation            | (TVD)   | Bearing/Target | Hazards* |
|                      | from KB | Zone?          |          |
| Rustler              | 775     |                |          |
| Salt                 | 1157    |                |          |
| Base of Salt         | 4627    |                |          |
| Delaware             | 4627    |                |          |
| Cherry Canyon        | 5637    |                |          |
| Brushy Canyon        | 7052    |                |          |
| 1st Bone Spring Lime | 8452    |                |          |
| Bone Spring 1st      | 9569    |                |          |
| 2nd BSPG Lime        | 9858    |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
| _                    |         | -              |          |
|                      |         | -              |          |
|                      |         |                |          |

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

|           |           | Wt     |        |         | Casing    | Interval | Casing     | Interval |
|-----------|-----------|--------|--------|---------|-----------|----------|------------|----------|
| Hole Size | Csg. Size | (PPF)  | Grade  | Conn    | From (MD) | To (MD)  | From (TVD) | To (TVD) |
| 14 3/4    | 10 3/4    | 45 1/2 | J-55   | ВТС     | 0         | 800      | 0          | 800      |
| 9 7/8     | 8 5/8     | 32     | P110HP | Talon   | 0         | 9424     | 0          | 9424     |
| 7 7/8     | 5 1/2     | 20     | P110HP | CDC HTQ | 0         | 20342    | 0          | 10196    |

<sup>•</sup>All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

3. Cementing Program (Primary Design)

| Casing       | # Sks | TOC  | Wt.  | Yld<br>(ft3/sack) | Slurry Description                       |
|--------------|-------|------|------|-------------------|--|
| Surface      | 488   | Surf | 13.2 | 1.44              | Lead: Class C Cement + additives         |
| Int 1        | 349   | Surf | 9    | 3.27              | Lead: Class C Cement + additives         |
| Int 1        | 280   | 7052 | 13.2 | 1.44              | Tail: Class H / C + additives            |
| Int 1        | 793   | Surf | 13.2 | 1.44              | Squeeze Lead: Class C Cement + additives |
| Intermediate | 349   | Surf | 9    | 3.27              | Lead: Class C Cement + additives         |
| Squeeze      | 280   | 7052 | 13.2 | 1.44              | Tail: Class H / C + additives            |
| Production   | 117   | 7524 | 9    | 3.27              | Lead: Class H /C + additives             |
| Froduction   | 1432  | 9524 | 13.2 | 1.44              | Tail: Class H / C + additives            |

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

| Casing String              | % Excess |
|----------------------------|----------|
| Surface                    | 50%      |
| Intermediate 1             | 30%      |
| Intermediate 1 (Two Stage) | 25%      |
| Prod                       | 10%      |

4. Pressure Control Equipment (Three String Design)

| BOP installed and tested before drilling which hole? | Size?        | Min.<br>Required<br>WP | Туре        |             | <b>✓</b>       | Tested to:                    |      |      |      |      |      |      |      |      |      |          |  |
|--|--------------|------------------------|-------------|-------------|----------------|-------------------------------|------|------|------|------|------|------|------|------|------|----------|--|
|  |              |                        | Anı         | nular       | X              | 50% of rated working pressure |      |      |      |      |      |      |      |      |      |          |  |
| Int 1  | 13-5/8"      | 5M                     | Bline       | d Ram       | X              |                               |      |      |      |      |      |      |      |      |      |          |  |
| IIIt I   | 13-3/6       | JIVI                   | Pipe        | Ram         |                | 5M                            |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Doub        | le Ram      | X              | JIVI                          |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Other*      |             |                | 1                             |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Annul       | ar (5M)     | X              | 50% of rated working pressure |      |      |      |      |      |      |      |      |      |          |  |
| Dun dun stin n                                       | 13-5/8"      | 5 M                    | Bline       | d Ram       | X              |                               |      |      |      |      |      |      |      |      |      |          |  |
| Production   |              | 13-3/8                 | 13-3/8      | 13-3/8      | 13-3/8         | " 5M                          | 3101 | 31/1 | 3101 | JIVI | JIVI | 3101 | 3101 | 31/1 | Pipe | Pipe Ram |  |
|  |              |                        | Doub        | le Ram      | X              | SIVI                          |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Other*      |             |                |                               |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Annul       | ar (5M)     |                |                               |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Blind Ram   |             |                |                               |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Pipe Ram    |             |                |                               |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Double Ram  |             |                | 1                             |      |      |      |      |      |      |      |      |      |          |  |
|  |              |                        | Other*      |             |                | 1                             |      |      |      |      |      |      |      |      |      |          |  |
| N A variance is requested for                        | the use of a | diverter or            | the surface | casing. See | attached for s | chematic.                     |      |      |      |      |      |      |      |      |      |          |  |
| Y A variance is requested to 1                       | un a 5 M ai  | nnular on a            | 10M system  |             |                |                               |      |      |      |      |      |      |      |      |      |          |  |

**5. Mud Program (Three String Design)** 

| Section      | Туре            | Weight<br>(ppg) |
|--------------|-----------------|-----------------|
| Surface      | FW Gel          | 8.5-9           |
| Intermediate | DBE / Cut Brine | 10-10.5         |
| Production   | OBM             | 10-10.5         |

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

| Addition | al logs planned | Interval                |
|----------|-----------------|-------------------------|
|          | Resistivity     | Int. shoe to KOP        |
|          | Density         | Int. shoe to KOP        |
| X        | CBL             | Production casing       |
| X        | Mud log         | Intermediate shoe to TD |
|          | PEX             |                         |

#### 7. Drilling Conditions

| Condition                  | Specfiy what type and where? |
|----------------------------|------------------------------|
| BH pressure at deepest TVD | 5567                         |
| Abnormal temperature       | No                           |

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren 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 43 CFR 3176. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

| meast | values and formations will be provided to the BLM. |  |
|-------|--|--|
| N     | H2S is present                                     |  |
| Y     | H2S plan attached.                                 |  |

#### HAFLINGER 22-27 FED COM 125H

#### 8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

#### Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulation
- $^{3}$  The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

| Attachments | 1                |
|-------------|------------------|
| X           | Directional Plan |
|             | Other, describe  |



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Report

Well Name: HAFLINGER 22-27 FED

COM

Well Location: T25S / R32E / SEC 22 /

NENW / 32.1226807 / -103.6656409

County or Parish/State: LEA /

NM

Well Number: 125H Type of Well: OIL WELL AI

Allottee or Tribe Name:

Lease Number: NMLC062300

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number: 3002554293** 

**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

#### **Notice of Intent**

**Sundry ID: 2840479** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/06/2025 Time Sundry Submitted: 02:24

Date proposed operation will begin: 03/06/2025

**Procedure Description:** Devon Energy Production Co., L.P. (Devon) respectfully requests a drilling plan change for the subject well. Devon also requests break test with stump and offline cementing variances. Please see revised drill plan and variance attachments.

## **NOI Attachments**

#### **Procedure Description**

Offline\_Cementing\_\_\_Variance\_Request\_20250306142405.pdf

Break\_Test\_Variance\_Offline\_BOP\_2\_3\_2025\_20250306142352.pdf

5.5\_20lb\_P110HP\_CDC\_HTQ\_20250306142337.pdf

8.625\_32lb\_P110\_HP\_TALON\_RD\_20250306142321.pdf

10.75\_45.5lb\_J55\_BTC\_20250306142300.pdf

HAFLINGER\_22\_27\_FED\_COM\_125H\_3\_6\_20250306142230.pdf

eived by OCD: 3/25/2025 1:36:26 PM Well Name: HAFLINGER 22-27 FED

COM

Well Location: T25S / R32E / SEC 22 / NENW / 32.1226807 / -103.6656409

County or Parish/State: Page 18 of

Well Number: 125H

Type of Well: OIL WELL

**Allottee or Tribe Name:** 

Lease Number: NMLC062300

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number:** 3002554293

**Operator: DEVON ENERGY** PRODUCTION COMPANY LP

#### **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

**Operator Electronic Signature: AMY BROWN** Signed on: MAR 06, 2025 02:24 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Professional

Street Address: 333 WEST SHERIDAN AVENUE

City: OKLAHOMA CITY State: OK

Phone: (405) 552-6137

Email address: AMY.BROWN@DVN.COM

#### **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

**Email address:** 

APPROVED by Long Vo Petroleum Engineer Carlsbad Field Office 575-988-50402 LVO@BLM.GOV

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP 
LOCATION: Section 22, T.25 S., R.32 E., NMPM
COUNTY: Lea County, New Mexico

WELL NAME & NO.: Haflinger 22-27 Fed Com 125H

ATS/API ID: 3002554293 APD ID: 10400097921 Sundry ID: 2840479

COA

| H2S                                 | Yes                                     |                           |                             |
|-------------------------------------|---|---------------------------|-----------------------------|
| Potash                              | None                                    | None                      |                             |
| Cave/Karst<br>Potential             | Low                                     |                           |                             |
| Cave/Karst<br>Potential             | □Critical                               |                           |                             |
| Variance                            | None                                    | ☐ Flex Hose               | Other                       |
| Wellhead                            | Conventional and Multibowl              | <b>T</b>                  |                             |
| Other                               | □ 4 String □ 5 String                   | Capitan Reef None         | □WIPP                       |
| Other                               | Pilot Hole  None                        | ☐ Open Annulus            |                             |
| Cementing                           | Contingency Squeeze  Int 1              | Echo-Meter None           | Primary Cement Squeeze None |
| Special<br>Requirements             | ☐ Water Disposal/Injection              | ▼ COM                     | Unit                        |
| Special<br>Requirements             | ☐ Batch Sundry                          | Waste Prevention Waste MP |                             |
| Special<br>Requirements<br>Variance | BOPE Break Testing Offline BOPE Testing | ✓ Offline Cementing       | ☐ Casing Clearance          |

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 950 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be 14 3/4 inch in diameter.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

# Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to the BLM. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

#### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

#### Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. Annular which shall be tested to 3500 (70% Working Pressure) psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 inch intermediate casing shoe shall be 5000 (5M) psi.

#### Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 10-3/4 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

#### D. SPECIAL REQUIREMENT (S)

#### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR part 3170 Subpart 3171
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

#### **BOPE Break Testing Variance (Approved)**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.
- The BOPE testing shall be conducted while the rig is stationary.

#### **Offline BOPE Testing**

Operator has been (Approved) to test the BOPE offline.

The BOPE offline testing shall be stationary during pressure testing.

Online BOPE testing should commence within 72 hours of offline BOPE testing completion. Notify the BLM if interval exceeds 72 hours.

Notify the BLM 4hrs prior to offline BOPE testing at Lea County: 575-689-5981.

#### **Offline Cementing**

Operator has been (**Approved**) to pump the proposed cement program offline in the **Intermediate(s) interval**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at Lea County: 575-689-5981.

## **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

✓ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43** CFR part **3170** Subpart **3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke

manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be

- initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 Subpart 3172 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR part 3170 Subpart 3172.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Long Vo (LVO) 3/24/2025

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR DUBEAU OF LAND MANAGEMENT

| FORM APPROVED            |
|--------------------------|
| OMB No. 1004-0137        |
| Expires: October 31, 202 |

| BURI  | EAU OF LAND MANAGEM  | MENT                        | 5. Lease Serial No.                   |  |
|---|--|-----------------------------|---------------------------------------|--|
| Do not use this f   | OTICES AND REPORTS<br>form for proposals to dril<br>Use Form 3160-3 (APD) fo | l or to re-enter an         | 6. If Indian, Allottee or Tribe 1     | Name                                     |
| SUBMIT IN T   | TRIPLICATE - Other instructions  | on page 2                   | 7. If Unit of CA/Agreement, N         | Name and/or No.                          |
| 1. Type of Well  Oil Well  Gas W  | /ell Other   |                             | 8. Well Name and No.                  |  |
| 2. Name of Operator   |  |                             | 9. API Well No.                       |  |
| 3a. Address   | 3b. Pho  | one No. (include area code) | 10. Field and Pool or Explorat        | ory Area                                 |
| 4. Location of Well (Footage, Sec., T.,R  | .,M., or Survey Description)   |                             | 11. Country or Parish, State          |  |
| 12. CHE   | CK THE APPROPRIATE BOX(ES)   | TO INDICATE NATURE          | OF NOTICE, REPORT OR OTH              | HER DATA                                 |
| TYPE OF SUBMISSION  |  | TYP                         | E OF ACTION                           |  |
| Notice of Intent  | Acidize Alter Casing   | Deepen Hydraulic Fracturing | Production (Start/Resume) Reclamation | Water Shut-Off Well Integrity            |
| Subsequent Report   | Casing Repair  | New Construction            | Recomplete                            | Other                                    |
|   | Change Plans   | Plug and Abandon            | Temporarily Abandon                   |  |
| Final Abandonment Notice  | Convert to Injection   | Plug Back                   | Water Disposal                        |  |
| is ready for final inspection.)   |  |                             | tion, have been completed and t       | he operator has detennined that the site |
| 14. I hereby certify that the foregoing is  | true and correct. Name (Printed/Typ  |                             |                                       |  |
|   |  | Title                       |                                       |  |
| Signature   |  | Date                        |                                       |  |
|   | THE SPACE FOR  | FEDERAL OR STA              | TE OFICE USE                          |  |
| Approved by   |  |                             |                                       |  |
|   |  | Title                       |                                       | Date                                     |
| Conditions of approval, if any, are attact certify that the applicant holds legal or e which would entitle the applicant to con | equitable title to those rights in the su                                    |                             |                                       |  |
| Title 18 U.S.C. Section 1001 and Title 43   | B I I S C Section 1212 make it a crim  | ne for any person knowingly | y and willfully to make to any de     | epartment or agency of the United States |

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 State any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

#### **Additional Information**

#### **Location of Well**

0. SHL: NENW / 200 FNL / 1810 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.1226807 / LONG: -103.6656409 ( TVD: 0 feet, MD: 0 feet ) PPP: NENW / 100 FNL / 2150 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.122957 / LONG: -103.664542 ( TVD: 8636 feet, MD: 8666 feet ) PPP: SENW / 1460 FNL / 2155 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.1046946 / LONG: -103.6645293 ( TVD: 10113 feet, MD: 16500 feet ) PPP: NESW / 2516 FSL / 2152 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.1011216 / LONG: -103.6645275 ( TVD: 10134 feet, MD: 17800 feet ) BHL: SESW / 20 FSL / 2150 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.09426 / LONG: -103.664524 ( TVD: 10175 feet, MD: 20297 feet )

#### **Offline Cementing**

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

#### **Section 2 - Blowout Preventer Testing Procedure**

Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. The initial BOP test will follow 43 CFR 3172, and subsequent tests following a skid will only test connections that are broken. This test will at minimum include the Top Pipe Ram, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and BOP shell of the 10M BOPE to 5M for 10 minutes. Additional pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections. This variance will meet or exceed 43 CFR 3172 per the following: Devon Energy will perform a full BOP test per 43 CFR 3172 before drilling out of the intermediate casing string(s) and starting the production hole, testing the Annular during initial BOP testing to a minimum of 70% RWP and higher than MASP, and pressure testing at a 21-day interval frequency. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event break testing is not utilized, then a full BOPE test would be conducted.

Devon Energy requests to perform offline BOP stump testing and offline BOPE testing. All pressure-containing and pressure-controlling seals will be tested either online or offline as denoted in the table below and per BLM approval during initial BOP test following test pressure requirements set forth in 43 CFR 3172. Remaining components not tested offline or on the stump will be tested within 72-hours when the BOP is connected to the wellhead. If stump testing exceeds 72-hour window prior to connecting to the wellhead, the BLM will be notified and either stump testing restarted, or the BOP being tested online. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event stump testing is not utilized, then a full BOPE test would be conducted.

| Components  | Offline | Offline, BOPE | Break | Online |
|---|---------|---------------|-------|--------|
| Upper Rams  |         | X             | X     | Х      |
| Blind Rams  |         | Х             |       | Х      |
| Lower Rams  |         |               |       | X      |
| Outside Kill Valve  |         | X             | X     | X      |
| Inside Kill Valve   |         | X             | X     | X      |
| Kill Line Check Valve                                       |         | Х             | Х     | Х      |
| Inside Choke Valve  |         | Х             | Х     | Х      |
| HCR   |         | X             | X     | X      |
| Kill Line   | X       |               |       | X      |
| Annular   |         | X             |       | X      |
| Choke Manifold Valves and Hose                              | Χ       |               |       | X      |
| Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line) | Х       |               |       | X      |
| Standpipe Valve   | Х       |               |       | X      |
| IBOP (Upper and Lower)                                      | X       |               |       | X      |

Devon requests offline BOPE testing for the following components: Upper Rams, Blind Rams, Kill Valves, Choke Valves, and Annular Remaining well control equipment components will either be tested offline or online, per BLM approval

Remaining BOPE will be tested online within 72-hours form completing the offline BOPE component testing

Notify the BLM if the online BOPE testing exceeds 72-hours

All Full Tests not completed "Offline" or "Offline, BOPE" are required to be complete Online

Devon requests Break testing as stated above for 5K tests, not including production hole

 $Annular\ Preventer\ will\ be\ tested\ to\ minimum\ of\ 70\%\ RWP\ and\ higher\ than\ MASP\ during\ initial\ BOP\ test$ 

Pressure testing is required for pressure-containing connections if the integrity of a pressure seal is broken during a break test Full Tests required when entering production hole



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# **U. S. Steel Tubular Products** 5.500" 20.00lb/ft (0.361" Wall)

# P110 HP USS-CDC HTQ<sup>®</sup>

| MECHANICAL PROPERTIES             | Pipe    | USS-CDC HTQ <sup>®</sup> |            |
|-----------------------------------|---------|--------------------------|------------|
| Minimum Yield Strength            | 125,000 |                          | psi        |
| Maximum Yield Strength            | 140,000 |                          | psi        |
| Minimum Tensile Strength          | 130,000 |                          | psi        |
| DIMENSIONS                        | Pipe    | USS-CDC HTQ <sup>®</sup> |            |
| Outside Diameter                  | 5.500   | 6.300                    | in.        |
| Wall Thickness                    | 0.361   |                          | in.        |
| Inside Diameter                   | 4.778   | 4.778                    | in.        |
| Standard Drift                    | 4.653   | 4.653                    | in.        |
| Alternate Drift                   |         |                          | in.        |
| Nominal Linear Weight, T&C        | 20.00   |                          | lb/ft      |
| Plain End Weight                  | 19.83   |                          | lb/ft      |
| SECTION AREA                      | Pipe    | USS-CDC HTQ <sup>®</sup> |            |
| Critical Area                     | 5.828   | 5.828                    | sq. in.    |
| Joint Efficiency                  |         | 97.0                     | %          |
| PERFORMANCE                       | Pipe    | USS-CDC HTQ <sup>®</sup> |            |
| Minimum Collapse Pressure         | 13,150  | 13,150                   | psi        |
| External Pressure Leak Resistance |         | 10,520                   | psi        |
| Minimum Internal Yield Pressure   | 14,360  | 14,360                   | psi        |
| Minimum Pipe Body Yield Strength  | 729,000 |                          | lb         |
| Joint Strength                    |         | 707,000                  | lb         |
| Compression Rating                |         | 424,000                  | lb         |
| Reference Length                  |         | 23,567                   | ft         |
| Maximum Uniaxial Bend Rating      |         | 60.6                     | deg/100 ft |
| MAKE-UP DATA                      | Pipe    | USS-CDC HTQ <sup>®</sup> |            |
| Make-Up Loss                      |         | 4.63                     | in.        |
| Minimum Make-Up Torque            |         | 14,500                   | ft-lb      |
| Maximum Make-Up Torque            |         | 20,500                   | ft-lb      |
| Connection Yield Torque           |         | 25,300                   | ft-lb      |

#### **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
- 2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 4. Reference length is calculated by joint strength divided by nominal threaded and coupled weight with 1.5 safety factor.
- 5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Cal II.

#### **Legal Notice**

USS - CDC HTQ<sup>®</sup> (High Torque Casing Drilling Connection) is a trademark of U. S. Steel Corporation. This product is a modified API Buttress threaded and coupled connection designed for drilling with casing applications. All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

> 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380

1-877-893-9461 connections@uss.com www.usstubular.com

[4]



# U. S. Steel Tubular Products 8.625" 32.00lb/ft (0.352" Wall)

#### 8/13/2024 10:39:15 AM

P110 HP USS-TALON HTQ™ RD

#### **MECHANICAL PROPERTIES** Pipe USS-TALON HTQ™ RD [6] 125,000 Minimum Yield Strength psi Maximum Yield Strength 140,000 psi Minimum Tensile Strength 130,000 psi USS-TALON HTQ™ RD **DIMENSIONS** Pipe Outside Diameter 8.625 9.000 in. Wall Thickness 0.352 in. Inside Diameter 7.921 7.921 in. Standard Drift 7.796 7.796 in. Alternate Drift 7.875 7.796 in. Nominal Linear Weight, T&C 32.00 lb/ft Plain End Weight lb/ft 31.13 **SECTION AREA** Pipe USS-TALON HTQ™ RD Critical Area 9.149 9.149 sq. in. Joint Efficiency 100.0 [2] % **USS-TALON HTQ™ RD PERFORMANCE Pipe** Minimum Collapse Pressure 4,530 4,530 psi Minimum Internal Yield Pressure 8.930 8.930 psi Minimum Pipe Body Yield Strength 1.144.000 lb 1,144,000 Joint Strength lb Compression Rating 1,144,000 lb 23,830 Reference Length ft [5] deg/100 ft Maximum Uniaxial Bend Rating 66 4 [3] USS-TALON HTQ™ RD **MAKE-UP DATA** Pipe Make-Up Loss 5.58 in. Minimum Make-Up Torque 22,300 ft-lb [4] Maximum Make-Up Torque ft-lb 25,300 [4]

#### **Notes**

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).

111,500

- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bend rating shown is structural only

Maximum Operating Torque

- 4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

#### **Legal Notice**

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

ft-lb



| <u>10-3/4"</u>         | <u>45.50#</u>           | <u>0.400"</u>   | <u>J-55</u> |          |
|------------------------|-------------------------|-----------------|-------------|----------|
| Dimensions (           | Nominal)                |                 |             |          |
| Outside Diameter       |                         |                 | 10.750      | in.      |
| Wall                   |                         |                 | 0.400       | in.      |
| <b>Inside Diameter</b> |                         |                 | 9.950       | in.      |
| Drift                  |                         |                 | 9.875       | in.      |
| Weight, T&C            |                         |                 | 45.500      | lbs/ft   |
| Weight, PE             |                         |                 | 44.260      | lbs/ft   |
| <u>Performance</u>     | <u>Properties</u>       |                 |             |          |
| Collapse               |                         |                 | 2090        | psi      |
| Internal Yield Press   | ure at Minimum Yield    |                 |             |          |
| 1                      | PE                      |                 | 3580        | psi      |
| :                      | STC                     |                 | 3580        | psi      |
| J                      | втс                     |                 | 3580        | psi      |
| Yield Strength, Pipe   | e Body                  |                 | 715         | 1000 lbs |
| Joint Strength         |                         |                 |             |          |
|                        | STC                     |                 | 493         | 1000 lbs |
| 1                      | ВТС                     |                 | 796         | 1000 lbs |
| I                      | BTC Special Clearance ( | 11.25" OD Cplg) | 506         | 1000 lbs |

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

#### HAFLINGER 22-27 FED COM 125H

#### 1. Geologic Formations

| TVD of target | 10196 | Pilot hole depth             | N/A |
|---------------|-------|------------------------------|-----|
| MD at TD:     | 20342 | Deepest expected fresh water |     |

#### Basin

| Dasin                |         |                |          |
|----------------------|---------|----------------|----------|
|                      | Depth   | Water/Mineral  |          |
| Formation            | (TVD)   | Bearing/Target | Hazards* |
|                      | from KB | Zone?          |          |
| Rustler              | 775     |                |          |
| Salt                 | 1157    |                |          |
| Base of Salt         | 4627    |                |          |
| Delaware             | 4627    |                |          |
| Cherry Canyon        | 5637    |                |          |
| Brushy Canyon        | 7052    |                |          |
| 1st Bone Spring Lime | 8452    |                |          |
| Bone Spring 1st      | 9569    |                |          |
| 2nd BSPG Lime        | 9858    |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
|                      |         |                |          |
| _                    |         | -              |          |
|                      |         | -              |          |
|                      |         |                |          |

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

|           |           | Wt     |        |         |           | Casing Interval |            | Casing Interval |  |
|-----------|-----------|--------|--------|---------|-----------|-----------------|------------|-----------------|--|
| Hole Size | Csg. Size | (PPF)  | Grade  | Conn    | From (MD) | To (MD)         | From (TVD) | To (TVD)        |  |
| 14 3/4    | 10 3/4    | 45 1/2 | J-55   | ВТС     | 0         | 800             | 0          | 800             |  |
| 9 7/8     | 8 5/8     | 32     | P110HP | Talon   | 0         | 9424            | 0          | 9424            |  |
| 7 7/8     | 5 1/2     | 20     | P110HP | CDC HTQ | 0         | 20342           | 0          | 10196           |  |

<sup>•</sup>All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

3. Cementing Program (Primary Design)

| Casing       | # Sks | тос  | Wt.<br>ppg | Yld<br>(ft3/sack) | Slurry Description                       |
|--------------|-------|------|------------|-------------------|--|
| Surface      | 488   | Surf | 13.2       | 1.44              | Lead: Class C Cement + additives         |
| Int 1        | 349   | Surf | 9          | 3.27              | Lead: Class C Cement + additives         |
| Int 1        | 280   | 7052 | 13.2       | 1.44              | Tail: Class H / C + additives            |
| Int 1        | 793   | Surf | 13.2       | 1.44              | Squeeze Lead: Class C Cement + additives |
| Intermediate | 349   | Surf | 9          | 3.27              | Lead: Class C Cement + additives         |
| Squeeze      | 280   | 7052 | 13.2       | 1.44              | Tail: Class H / C + additives            |
| Production   | 117   | 7524 | 9          | 3.27              | Lead: Class H /C + additives             |
| Froduction   | 1432  | 9524 | 13.2       | 1.44              | Tail: Class H / C + additives            |

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

| Casing String              | % Excess |
|----------------------------|----------|
| Surface                    | 50%      |
| Intermediate 1             | 30%      |
| Intermediate 1 (Two Stage) | 25%      |
| Prod                       | 10%      |

**4. Pressure Control Equipment (Three String Design)** 

| BOP installed and tested before drilling which hole? | Size?  | Min.<br>Required<br>WP | Туре         |         | ✓  | Tested to:                    |
|--|--|------------------------|--------------|---------|----|-------------------------------|
|  |  |                        | Anı          | nular   | X  | 50% of rated working pressure |
| Int 1  | 13-5/8"  | 5M                     | Bline        | d Ram   | X  |                               |
| IIIt I   | 13-3/6   | JIVI                   | Pipe         | Ram     |    | 5M                            |
|  |  |                        | Doub         | le Ram  | X  | JIVI                          |
|  |  |                        | Other*       |         |    |                               |
|  |  |                        | Annul        | ar (5M) | X  | 50% of rated working pressure |
| Dun dunding  | 13-5/8"  | 5 M                    | Blind Ram    |         | X  | _                             |
| Production   |  | 5M Pipe Ram            |              |         | 5M |                               |
|  |  |                        | Double Ram   |         | X  | JIVI                          |
|  |  |                        | Other*       |         |    |                               |
|  |  |                        | Annular (5M) |         |    |                               |
|  |  |                        | Blind Ram    |         |    |                               |
|  |  |                        | Pipe Ram     |         |    |                               |
|  |  |                        | Double Ram   |         |    |                               |
|  |  |                        | Other*       |         |    |                               |
| N A variance is requested for                        | the use of a diverter on the surface casing. See attached for schematic. |                        |              |         |    |                               |
| Y A variance is requested to 1                       | A variance is requested to run a 5 M annular on a 10M system             |                        |              |         |    |                               |

5. Mud Program (Three String Design)

| Section      | Туре            | Weight<br>(ppg) |  |
|--------------|-----------------|-----------------|--|
| Surface      | FW Gel          | 8.5-9           |  |
| Intermediate | DBE / Cut Brine | 10-10.5         |  |
| Production   | OBM             | 10-10.5         |  |

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

| Addition | al logs planned | Interval                |
|----------|-----------------|-------------------------|
|          | Resistivity     | Int. shoe to KOP        |
|          | Density         | Int. shoe to KOP        |
| X        | CBL             | Production casing       |
| X        | Mud log         | Intermediate shoe to TD |
|          | PEX             |                         |

7. Drilling Conditions

| Condition                  | Specfiy what type and where? |
|----------------------------|------------------------------|
| BH pressure at deepest TVD | 5567                         |
| Abnormal temperature       | No                           |

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren 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 43 CFR 3176. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

| meast | measured values and formations will be provided to the BEM. |                    |  |  |  |  |
|-------|---|--------------------|--|--|--|--|
| N     |   | H2S is present     |  |  |  |  |
| Y     |   | H2S plan attached. |  |  |  |  |

#### HAFLINGER 22-27 FED COM 125H

#### 8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

#### Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulation
- $^{3}$  The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

| Attachments |                  |
|-------------|------------------|
| X           | Directional Plan |
|             | Other, describe  |

#### Haflinger 22-27 Fed Com 125H

| 10 3/4  | su   | ırface csg in a  | 14 3/4  | inch hole.  |  | Design  | Factors   |   | Surface      |                 |                      |  |
|---|--|--|---|---|--|---|---|---|--------------|-----------------|----------------------|--|
| Segment   | #/ft   | Grade  |   | Coupling  | Body                                       | Collapse  | Burst   | Length  | B@s          | a-B             | a-C                  | Weigl  |
| "A"<br><b>"B"</b>   | 45.50  |  | j 55  | btc<br>btc  | 16.55                                      | 4.71  | 0.7   | 950<br><b>0</b>   | 9            | 1.17            | 8.89                 | 43,22<br><b>0</b>  |
| omparison o   |  | 1#/g mud, 30min Sfc Csg Test<br>Minimum Required Cem   |   | Tail Cmt  | does not                                   | circ to sfc.  | Totals:   | 950   |              |                 |                      | 43,22  |
| Hole  | Annular  | 1 Stage  | 1 Stage   | Min   | 1 Stage                                    | Drilling  | Calc  | Req'd   |              |                 |                      | Min D  |
| Size  | Volume   | Cmt Sx   | CuFt Cmt  | Cu Ft   | % Excess                                   | Mud Wt  | MASP  | BOPE  |              |                 |                      | Hole-C   |
| 14 3/4  | 0.5563   | 488  | 703   | 529   | 33   | 9.00  | 3067  | 5M  |              |                 |                      | 1.50   |
| Burst Frac Grad   | lient(s) for Segm  | nent(s) A, B = , b All > 0.  | .70, OK.  |   |  |   |   |   |              |                 |                      |  |
| 8 5/8   | ras  | sing inside the  | 10 3/4  |   |  | Design I  | Factors   |   |              | Int 1           |                      |  |
| Segment   | #/ft   | Grade  | 100,1   | Coupling  | Joint                                      | Collapse  | Burst   | Length  | B@s          | a-B             | a-C                  | Weigl  |
| "A"   | 32.00  |  | p 110   | uss talon htq   | 3.79                                       | 0.88  | 1.61  | 9,424   | 2            | 2.69            | 1.48                 | 301,56   |
| "B"   | 32.30  |  | F   | 200 200111119   | 5.70                                       | 0.00  |   | 0   | _            | 2.00            | 1.10                 | 0  |
| _   | w/8.4  | 1#/g mud, 30min Sfc Csg Test   | t psig: 2.073   |   |  |   | Totals:   | 9,424   |              |                 |                      | 301,56   |
|   | ,  |  |   | ded to achieve a top of   | 0  | ft from su  |   | 950   |              |                 |                      | overlap.   |
| Hole  | Annular  | 1 Stage  | 1 Stage   | Min   | 1 Stage                                    | Drilling  | Calc  | Reg'd   |              |                 |                      | Min Di   |
| Size  | Volume   | Cmt Sx   | CuFt Cmt  | Cu Ft   | % Excess                                   | Mud Wt  | MASP  | BOPE  |              |                 |                      | Hole-C   |
| 9 7/8   | 0.1261   | 629  | 1544  | 1196  | 29   | 10.50   | 3318  | 5M  |              |                 |                      | 0.44   |
|   |  |  |   |   |  | 10.00   | sum of sx   | Σ CuFt  |              |                 |                      | Σ%exce   |
| D V LOOKS):   |  |  |   |   |  |   |   |   |              |                 |                      |  |
| by stage % :  | t yld > 1.20   | #VALUE!  | #VALUE!   |   |  |   | 629   | 1544  |              |                 |                      | 29   |
| by stage % :<br>Class 'H' tail cm   |  |  |   |   |  |   |   |   |              |                 |                      | 29   |
| by stage % : Class 'H' tail cm Tail cmt 5 1/2   | cas  | sing inside the  | #VALUE!   |   |  | Design Fa   | ctors   | 1544  |              | Prod 1          |                      |  |
| by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment   | cas<br>#/ft  |  | 8 5/8   | Coupling  | Joint                                      | Collapse  | ctors<br>Burst  | 1544<br>Length  | B@s          | а-В             | a-C                  | Weig   |
| Tail cmt 5 1/2 Segment "A"  | cas  | sing inside the  |   | Coupling<br>cdc-htq   | Joint<br>3.14                              |   | ctors   | 1544<br>Length<br>20,342  | <b>B@s</b> 2 |                 | <b>a-C</b> 3.68      | Weig<br>406,8  |
| Tail cmt 51/2 Segment "A" "B"   | cas<br>#/ft  | sing inside the  | 8 5/8   |   |  | Collapse  | ctors<br>Burst  | Length 20,342 0   |              | а-В             |                      | Weig<br>406,8  |
| Tail cmt 5 1/2 Segment "A" "B" "C"  | cas<br>#/ft  | sing inside the  | 8 5/8   |   |  | Collapse  | ctors<br>Burst  | Length 20,342 0   |              | а-В             |                      | Weigl<br>406,84<br>0   |
| 5 1/2<br>Segment<br>"A"<br>"B"  | cas<br>#/ft<br>20.00   | ing inside the<br>Grade  | <b>85/8</b> p 110   |   |  | Collapse  | ctors<br>Burst<br>2.27  | Length 20,342 0 0   |              | а-В             |                      | Weigl<br>406,8-<br>0<br>0  |
| Tail cmt 5 1/2 Segment "A" "B" "C"  | cas<br>#/ft<br>20.00   | Sing inside the Grade  #/g mud, 30min Sfc Csg Test   | 8 5/8<br>p 110  | cdc-htq   | 3.14                                       | Collapse<br>2.19                                    | Ctors Burst 2.27 Totals:  | Length 20,342 0 0 0 20,342  |              | а-В             | 3.68                 | Weigi<br>406,8-<br>0<br>0<br>0<br>406,8-   |
| by stage %: Class 'H' tail cm  Tail cmt 5 1/2 Segment "A" "B" "C" "D"   | cas<br>#/ft<br>20.00   | ing inside the<br>Grade<br>1#/g mud, 30min Sfc Csg Test<br>The cement v  | 8 5/8<br>p 110<br>t psig: 2,243<br>volume(s) are intended   | cdc-htq   | 3.14<br>9224                               | Collapse<br>2.19                                    | Ctors Burst 2.27  Totals: rface or a  | Length 20,342 0 0 20,342 200  |              | а-В             | 3.68                 | Weigi<br>406,8-<br>0<br>0<br>406,8-<br>overlap.  |
| by stage %: Class 'H' tail cmt  Tail cmt 5 1/2 Segment "A" "B" "C" "D"  | cas<br>#/ft<br>20.00<br>w/8.4  | Grade Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage   | 8 5/8 p 110 t psig: 2,243 volume(s) are intence 1 Stage   | cdc-htq  ded to achieve a top of Min  | 3.14<br>9224<br>1 Stage                    | Collapse 2.19  ft from su Drilling                  | Ctors Burst 2.27  Totals: rface or a Calc                                     | Length 20,342 0 0 20,342 200 Req'd  |              | а-В             | 3.68                 | Weigi<br>406,8-<br>0<br>0<br>406,8-<br>overlap.  |
| by stage %: Class 'H' tail cmt  5 1/2 Segment "A" "B" "C" "D"  Hole Size  | cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume                                   | Sing inside the<br>Grade<br>1#/g mud, 30min Sfc Csg Test<br>The cement<br>1 Stage<br>Cmt Sx                                  | 8 5/8 p 110 t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt   | cdc-htq  ded to achieve a top of  Min  Cu Ft  | 3.14<br>9224<br>1 Stage<br>% Excess        | ft from su<br>Drilling<br>Mud Wt                    | Ctors Burst 2.27  Totals: rface or a  | Length 20,342 0 0 20,342 200  |              | а-В             | 3.68                 | Weig<br>406,8<br>0<br>0<br>406,8<br>overlap.<br>Min Di   |
| Tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8   | w/8.4 Annular Volume 0.1733  | Grade Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage   | 8 5/8 p 110 t psig: 2,243 volume(s) are intence 1 Stage   | cdc-htq  ded to achieve a top of Min  | 3.14<br>9224<br>1 Stage                    | Collapse 2.19  ft from su Drilling                  | Ctors Burst 2.27  Totals: rface or a Calc                                     | Length 20,342 0 0 20,342 200 Req'd  |              | а-В             | 3.68                 | Weig<br>406,8<br>0<br>0<br>406,8<br>overlap.<br>Min D<br>Hole-C  |
| by stage %: Class 'H' tail cm  Tail cmt 51/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm                             | w/8.4 Annular Volume 0.1733  | Sing inside the<br>Grade<br>1#/g mud, 30min Sfc Csg Test<br>The cement<br>1 Stage<br>Cmt Sx                                  | 8 5/8 p 110 t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt   | cdc-htq  ded to achieve a top of  Min  Cu Ft  | 3.14<br>9224<br>1 Stage<br>% Excess        | ft from su<br>Drilling<br>Mud Wt                    | Ctors Burst 2.27  Totals: rface or a Calc                                     | Length 20,342 0 0 20,342 200 Req'd  |              | а-В             | 3.68                 | Weig<br>406,8<br>0<br>0<br>406,8<br>overlap.<br>Min D<br>Hole-C  |
| by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm                                     | w/8.4 Annular Volume 0.1733  | Sing inside the<br>Grade<br>1#/g mud, 30min Sfc Csg Test<br>The cement<br>1 Stage<br>Cmt Sx                                  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445   | cdc-htq  ded to achieve a top of  Min  Cu Ft  | 3.14<br>9224<br>1 Stage<br>% Excess        | ft from su<br>Drilling<br>Mud Wt<br>10.50           | Totals: rface or a Calc MASP  | Length 20,342 0 0 20,342 200 Req'd  | 2            | <b>a-B</b> 3.81 | 3.68                 | Weig<br>406,8<br>0<br>0<br>0<br>406,8<br>overlap.  |
| by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm                                     | cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  Grade  #/g mud, 30min Sfc Csg Test The cement to 1 Stage Cmt Sx 1549  | 8 5/8 p 110 t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt   | cdc-htq  ded to achieve a top of  Min  Cu Ft  1927  | 9224<br>1 Stage<br>% Excess<br>27          | ft from su<br>Drilling<br>Mud Wt<br>10.50           | Cotors Burst 2.27  Totals: rface or a Calc MASP                               | Length<br>20,342<br>0<br>0<br>20,342<br>200<br>Req'd<br>BOPE                          | 2            | a-B<br>3.81     | 3.68                 | Weig<br>406,8<br>0<br>0<br>406,8<br>overlap.<br>Min Di<br>Hole-C   |
| by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm  #N/A 0 Segment                     | w/8.4 Annular Volume 0.1733  | Sing inside the<br>Grade<br>1#/g mud, 30min Sfc Csg Test<br>The cement<br>1 Stage<br>Cmt Sx                                  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445   | ded to achieve a top of Min Cu Ft 1927  Coupling  | 3.14<br>9224<br>1 Stage<br>% Excess        | ft from su<br>Drilling<br>Mud Wt<br>10.50           | Totals: rface or a Calc MASP  | Length 20,342 0 0 20,342 200 Req'd BOPE   | 2            | <b>a-B</b> 3.81 | 3.68                 | Weig 406,8 0 0 0 406,8 overlap. Min D Hole-C 0.79  |
| by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm  #N/A 0 Segment "A"                 | cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  Grade  #/g mud, 30min Sfc Csg Test The cement to 1 Stage Cmt Sx 1549  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445   | cdc-htq  ded to achieve a top of  Min  Cu Ft  1927  Coupling  0.00  | 9224<br>1 Stage<br>% Excess<br>27          | ft from su<br>Drilling<br>Mud Wt<br>10.50           | Cotors Burst 2.27  Totals: rface or a Calc MASP                               | Length 20,342 0 0 0 20,342 200 Req'd BOPE   | 2            | a-B<br>3.81     | 3.68                 | Weig 406,8 0 0 406,8 overlap. Min D Hole-C 0.75  |
| by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm                                     | Cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  Grade  Grade  ##/g mud, 30min Sfc Csg Test The cement of 1 Stage Cmt Sx 1549  Grade                                   | 8 5/8 p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445   | ded to achieve a top of Min Cu Ft 1927  Coupling  | 9224<br>1 Stage<br>% Excess<br>27          | ft from su<br>Drilling<br>Mud Wt<br>10.50           | Totals: Totals: rface or a Calc MASP  | Length 20,342 0 0 20,342 200 Req'd BOPE   | 2            | a-B<br>3.81     | 3.68                 | Weigg 406,8 0 0 0 0 406,8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
| by stage %:  Class 'H' tail cmt  5 1/2  Segment  "A"  "B"  "C"  "D"  Hole  Size  7 7/8  Class 'C' tail cm  #N/A  0  Segment  "A"    | Cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1549  Grade  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445  5 1/2  | cdc-htq  ded to achieve a top of  Min  Cu Ft  1927  Coupling  0.00  0.00  | 9224<br>1 Stage<br>% Excess<br>27<br>#N/A  | ft from su Drilling Mud Wt 10.50  Design Collapse   | Totals:   | Length 20,342 0 0 0 20,342 200 Req'd BOPE   | 2            | a-B<br>3.81     | 3.68<br>sing><br>a-C | Weigg<br>406,8,6<br>0<br>0<br>0<br>406,8<br>overlap<br>Min D<br>0.79   |
| by stage %: Class 'H' tail cm  Tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm #N/A 0 Segment "A" "B" "B" | Cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1549  Grade  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445  5 1/2  | cdc-htq  ded to achieve a top of Min Cu Ft 1927  Coupling 0.00 0.00 his csg, TOC intended                             | 9224<br>1 Stage<br>% Excess<br>27<br>#N/A  | ft from su Drilling Mud Wt 10.50  Design I Collapse | Totals:  Totals:  Tactors  Burst  Calc  MASP  Totals:  Totals:                | Length 20,342 0 0 0 20,342 200 Req'd BOPE   | 2            | a-B<br>3.81     | 3.68<br>sing><br>a-C | Weigg 406,88 0 0 0 0 406,8 overlap Min D Hole-C 0.77   Weigg 0 0 0 0 overlap 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| by stage %: Class 'H' tail cm  Tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7/8 Class 'C' tail cm  #N/A 0 Segment "A" "B"      | Cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35<br>#/ft | Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1549  Grade  ##/g mud, 30min Sfc Csg Test Cmt vol ca 1 Stage | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445  5 1/2  t psig: alc below includes ti 1 Stage | cdc-htq  ded to achieve a top of     Min     Cu Ft     1927  Coupling     0.00     0.00 his csg, TOC intended     Min | 9224 1 Stage % Excess 27 #N/A #N/A 1 Stage | ft from su Drilling Mud Wt 10.50  Design Collapse   | Totals: rface or a Calc MASP  Totals: rfactors Burst  Totals: rface or a Calc | Length 20,342 0 0 20,342 200 Req'd BOPE  Length 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2            | a-B<br>3.81     | 3.68<br>sing><br>a-C | Weigg 406,8 0 0 0 0 406,8 overlap Min D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
| by stage %: Class 'H' tail cm  Tail cmt 5 1/2 Segment "A" "B" "C" "D"  Hole Size 7 7/8 Class 'C' tail cm #N/A 0 Segment "A" "B" "B" | Cas<br>#/ft<br>20.00<br>w/8.4<br>Annular<br>Volume<br>0.1733<br>t yld > 1.35         | Grade  ##/g mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1549  Grade  | p 110  t psig: 2,243 volume(s) are intend 1 Stage CuFt Cmt 2445  5 1/2  | cdc-htq  ded to achieve a top of Min Cu Ft 1927  Coupling 0.00 0.00 his csg, TOC intended                             | 9224<br>1 Stage<br>% Excess<br>27<br>#N/A  | ft from su Drilling Mud Wt 10.50  Design I Collapse | Totals:  Totals:  Tactors  Burst  Calc  MASP  Totals:  Totals:                | Length 20,342 0 0 0 20,342 200 Req'd BOPE   | 2            | a-B<br>3.81     | 3.68<br>sing><br>a-C | Weigg 406,88 0 0 0 0 406,8 overlap Min D Hole-C 0.77   Weigg 0 0 0 0 overlap 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

Carlsbad Field Office 3/24/2025 Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 445520

#### **CONDITIONS**

| Operator:                           | OGRID:                               |
|-------------------------------------|--------------------------------------|
| DEVON ENERGY PRODUCTION COMPANY, LP | 6137                                 |
| 333 West Sheridan Ave.              | Action Number:                       |
| Oklahoma City, OK 73102             | 445520                               |
|                                     | Action Type:                         |
|                                     | [C-103] NOI Change of Plans (C-103A) |

#### CONDITIONS

| Created By    | Condition  | Condition<br>Date |
|---------------|--|-------------------|
| matthew.gomez | A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud. | 5/9/2025          |
| matthew.gomez | Notify the OCD 24 hours prior to casing & cement.                      | 5/9/2025          |
| matthew.gomez | Any previous COA's not addressed within the updated COA's still apply. | 5/9/2025          |