ceived by OCD: 2/21/2025 6:26:58 AM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Repor
Well Name: HAFLINGER 22-27 FED COM	Well Location: T25S / R32E / SEC 22 / NENW / 32.122269 / -103.665286	County or Parish/State: LEA / NM
Well Number: 524H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC062300	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550061	Operator: DEVON ENERGY PRODUCTION COMPANY LP	

Notice of Intent

Sundry ID: 2838962

1400

Type of Submission: Notice of Intent

Date Sundry Submitted: 02/26/2025

Date proposed operation will begin: 02/26/2025

Type of Action: APD Change Time Sundry Submitted: 12:37

Procedure Description: Devon Energy Production Co., L.P. (Devon) respectfully requests a SHL move, BHL move, and drill plan change for the subject well. Devon also requests break test with stump and offline cementing variances. Please see revised C102, drill plan, directional plan, and variance attachments. Permitted SHL: UL C, 350 FNL, 1920 FWL, Sec 22, T 25S, R 32E Proposed SHL: UL C, 500 FNL, 1775 FWL, Sec 22, T 25S, R 32E Permitted BHL: UL N, 20 FSL, 2310 FWL, Sec 27, T 25S, R 32E Proposed BHL: UL M, 20 FSL, 1515 FWL, Sec 27, T 25S, R 32E

NOI Attachments

Procedure Description

HAFLINGER_22_27_FED_COM_524H_3_24_20250331141604.pdf

5.5_17_0.3040_P110_HP_CDC_20250331141500.pdf

Offline_Cementing___Variance_Request_20250226123634.pdf

Break_Test_Variance_BOP_2_3_2025_20250226123620.pdf

8.625_32lb_P110_HP_TALON_RD_20250226123551.pdf

10.75_45.5lb_J55_BTC_20250226123512.pdf

HAFLINGER_22_27_FED_COM_524H_Directional_Plan_02_06_25_20250226123435.pdf

WA018233456_HAFLINGER_22_27_FED_COM_524H_WL_R3_SIGNED_20250226123407.pdf

 Received to OCD: HAFLINGER 22:27 FED COM
 Well Location: T25S / R32E / SEC 22 / NENW / 32.122269 / -103.665286
 County or Parish/State: LEAP 2 of 34 NM

 Well Number: 524H
 Type of Well: OIL WELL
 Allottee or Tribe Name:

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

 US Well Number: 3002550061
 Operator: DEVON ENERGY PRODUCTION COMPANY LP
 Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Additional

 $Haflinger_22_27_Fed_Com_524H_Dr_COA_20250415102530.pdf$

22_25_32_C_Sundry_ID_2838962_Haflinger_22_27_Fed_Com_524H_20250415102446.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

Name: DEVON ENERGY PRODUCTION COMPANY LP

State:

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:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS BLM POC Phone: 5752342234 Disposition: Approved Signature: Cody R. Layton Signed on: MAR 31, 2025 02:16 PM

BLM POC Title: Petroleum Engineer

Zip:

BLM POC Email Address: cwalls@blm.gov

Disposition Date: 04/17/2025

Received by OCD: 4/21/2025 6:26:58 AM

cecirca by OCD.	<i></i>	20.00 2111			I uge 5 of
Form 3160-5 (June 2019)					DRM APPROVED MB No. 1004-0137 res: October 31, 2021
	ot use this i	NOTICES AND REPO form for proposals Use Form 3160-3 (A	6. If Indian, Allottee or Tribe Name		
	SUBMIT IN	TRIPLICATE - Other instr	uctions on page 2	7. If Unit of CA/Agreement, Na	ame and/or No.
1. Type of Well	l 🗌 Gas V	Well Other		8. Well Name and No.	
2. Name of Operator				9. API Well No.	
3a. Address			3b. Phone No. (include area code)	10. Field and Pool or Explorate	bry Area
4. Location of Well (Fo	ootage, Sec., T.,H	R.,M., or Survey Description)	11. Country or Parish, State	
	12. CHE	CK THE APPROPRIATE B	SOX(ES) TO INDICATE NATURE	OF NOTICE, REPORT OR OTH	ER DATA
TYPE OF SUBM	AISSION		TYP	E OF ACTION	
Notice of Intent		Acidize	Deepen Hydraulic Fracturing	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity
Subsequent Rep	ort	Casing Repair	New Construction Plug and Abandon	Recomplete Temporarily Abandon	Other
Final Abandonm	ent Notice	Convert to Injection	Plug Back	Water Disposal	
the proposal is to d the Bond under wh completion of the in	eepen directiona ich the work wil nvolved operation bandonment No	ally or recomplete horizontal Il be perfonned or provide th ons. If the operation results i	ly, give subsurface locations and me e Bond No. on file with BLM/BIA. n a multiple completion or recomple	asured and true vertical depths of Required subsequent reports mus ption in a new interval, a Form 31	k and approximate duration thereof. If f all pertinent markers and zones. Attach t be filed within 30 days following 60-4 must be filed once testing has been he operator has detennined that the site

14. I hereby certify that the foregoing is true and correct. Name (<i>Printed/Typed</i>)			
	Title		
Signature	Date		
THE SPACE FOR FEDE		FICE USE	
Approved by			
	Title	Date	
Conditions of approval, if any, are attached. Approval of this notice does not warrant certify that the applicant holds legal or equitable title to those rights in the subject lea which would entitle the applicant to conduct operations thereon.			
Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any any false, fictitious or fraudulent statements or representations as to any matter within		illfully to make to any department or agency of the	United States

(Instructions on page 2)

Page 4 of 34

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

Additional Information

Location of Well

0. SHL: NENW / 350 FNL / 1920 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.122269 / LONG: -103.665286 (TVD: 0 feet, MD: 0 feet) PPP: NENW / 100 FNL / 2310 FWL / TWSP: 25S / RANGE: 32E / SECTION: 22 / LAT: 32.122957 / LONG: -103.664025 (TVD: 8636 feet, MD: 8695 feet) PPP: SENW / 1517 FNL / 2314 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.1044424 / LONG: -103.6640961 (TVD: 9227 feet, MD: 15700 feet) BHL: SESW / 20 FSL / 2310 FWL / TWSP: 25S / RANGE: 32E / SECTION: 27 / LAT: 32.094261 / LONG: -103.664008 (TVD: 9289 feet, MD: 19438 feet)

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 524H
ATS/API ID:	3002550061
APD ID:	10400071578
Sundry ID:	2838962

COA

H2S	Yes 🔻		
Potash	None	None	
Cave/Karst Potential	Low		
Cave/Karst Potential			
Variance	🖸 None	Section Flex Hose	C Other
Wellhead	Conventional and Multibowl	T	
Other	□4 String □5 String	Capitan Reef None	WIPP
Other	Pilot Hole None	Open Annulus	
Cementing	Contingency Squeeze	Echo-Meter	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	COM	□ Unit
Special Requirements	□ Batch Sundry	Waste Prevention None	
Special Requirements 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

- The 10-3/4 inch surface casing shall be set at approximately 882 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 <u>8</u> <u>hours</u> 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:

Option 1 (Single Stage):

• Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy** Canyon at 7052'.
- b. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 494 sxs Class C)

Operator has proposed to pump down **10-3/4**" X **8-5/8**" annulus after primary cementing stage. <u>Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the **8-5/8**" casing to surface after the second stage <u>BH to verify TOC.</u></u>

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- 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.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

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 2nd 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 <u>8 hours</u>. 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. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. 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
- 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) 4/15/2025

Haflinger 22-27 Fed Com 524H

	ce csg in a	14 3/4	inch hole.		Design	Factors			Surfac	e	
#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
45.50		j 55	btc	17.83	5.07	0.77	882	9	1.30	9.57	40,131
		,	btc				0	Ŭ			0
w/8.4#/g	nud. 30min Sfc Csg Test	psig: 1.500	Tail Cmt	does not	circ to sfc.	Totals:					40,131
						rotaioi	002				,
Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Rea'd				Min Dist
Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP					Hole-Cpl
0.5563	574	827	491	68	9.00	2764	3M				1.50
ent(s) for Segmen	t(s) A, B = , b All > (D.70, OK.									
								-			······
	•	10 3/4	<u> </u>								
	Grade						Length	-			Weight
32.00		p 110	uss talon htq	4.21	0.98	2.05	,	2	3.88	1.64	,
											0
w/8.4#/g ı			and a set of the set of the set	<u>,</u>							271,808
											overlap.
					•						Min Dist
											Hole-Cpl
0.1261	663		1078	74	10.50						0.44
											Σ%exces
	930	-100				663	1874				74
	The state of the s			· — · — · —	Design Es			-	Durad		
-	inside the	8 5/8			Design Fa			D.G.	Prod		
#/ft	inside the Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	
-		8 5/8 p 110	Coupling cdc-htq	Body 3.45			19,413	B@s 2			330,021
#/ft 17.00	Grade	p 110			Collapse	Burst 2.45	19,413 0	-	a-B	a-C	330,021 0
#/ft 17.00	Grade	p 110 psig: 2,046	cdc-htq	3.45	Collapse 1.72	Burst 2.45 Totals:	19,413 0 19,413	-	a-B	a-C	330,021 0 330,021
#/ft 17.00 w/8.4#/g r	Grade nud, 30min Sfc Csg Test The cement	p 110 _{psig:} 2,046 volume(s) are inter	cdc-htq	3.45 8294	Collapse 1.72 ft from su	Burst 2.45 Totals:	19,413 0 19,413 200	-	a-B	a-C	330,021 0 330,021 overlap.
#/ft 17.00 w/8.4#/g r Annular	Grade nud, 30min Sfc Csg Test The cement 1 Stage	p 110 psig: 2,046 volume(s) are inter 1 Stage	cdc-htq nded to achieve a top of Min	3.45 8294 1 Stage	Collapse 1.72 ft from su Drilling	Burst 2.45 Totals: Irface or a Calc	19,413 0 19,413 200 Req'd	-	a-B	a-C	330,021 0 330,021 overlap. Min Dist
#/ft 17.00 w/8.4#/g n Annular Volume	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt	cdc-htq nded to achieve a top of Min Cu Ft	3.45 8294 1 Stage % Excess	Collapse 1.72 ft from su Drilling Mud Wt	Burst 2.45 Totals:	19,413 0 19,413 200	-	a-B	a-C	330,02 0 330,02 overlap. Min Dist Hole-Cpl
#/ft 17.00 w/8.4#/g r Annular	Grade nud, 30min Sfc Csg Test The cement 1 Stage	p 110 psig: 2,046 volume(s) are inter 1 Stage	cdc-htq nded to achieve a top of Min	3.45 8294 1 Stage	Collapse 1.72 ft from su Drilling	Burst 2.45 Totals: Irface or a Calc	19,413 0 19,413 200 Req'd	-	a-B	a-C	330,021 0 330,021 overlap. Min Dist
#/ft 17.00 w/8.4#/g n Annular Volume 0.1733	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt	cdc-htq nded to achieve a top of Min Cu Ft	3.45 8294 1 Stage % Excess	Collapse 1.72 ft from su Drilling Mud Wt	Burst 2.45 Totals: Irface or a Calc	19,413 0 19,413 200 Req'd	-	a-B	a-C	0 330,021 overlap. Min Dist Hole-Cplg
#/ft 17.00 w/8.4#/g n Annular Volume 0.1733	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt	cdc-htq nded to achieve a top of Min Cu Ft	3.45 8294 1 Stage % Excess	Collapse 1.72 ft from su Drilling Mud Wt	Burst 2.45 Totals: Inface or a Calc MASP	19,413 0 19,413 200 Req'd	2	a-B	a-C 3.25	330,021 0 330,021 overlap. Min Dist Hole-Cplg
#/ft 17.00 w/8.4#/g n Annular Volume 0.1733	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177	cdc-htq nded to achieve a top of Min Cu Ft	3.45 8294 1 Stage % Excess	Collapse 1.72 ft from su Drilling Mud Wt 9.00	Burst 2.45 Totals: Inface or a Calc MASP	19,413 0 19,413 200 Req'd	2	a-B 4.62	a-C 3.25	330,021 0 330,021 overlap. Min Dist Hole-Cplg
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177	cdc-htq nded to achieve a top of Min Cu Ft 1927	3.45 8294 1 Stage % Excess 13	Collapse 1.72 ft from su Drilling Mud Wt 9.00 Design	Burst 2.45 Totals: Inface or a Calc MASP Factors	19,413 0 19,413 200 Req'd BOPE	2	a-B 4.62	a-C 3.25 asing>	330,021 0 330,021 overlap. Min Dist Hole-Cply 0.79
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177	cdc-htq nded to achieve a top of Min Cu Ft 1927 Coupling	3.45 8294 1 Stage % Excess 13	Collapse 1.72 ft from su Drilling Mud Wt 9.00 Design	Burst 2.45 Totals: Inface or a Calc MASP Factors	19,413 0 19,413 200 Req'd BOPE	2	a-B 4.62	a-C 3.25 asing>	330,02 0 330,02 overlap. Min Dist Hole-Cpl 0.79 Weight
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35 #/ft	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177 5 1/2	cdc-htq nded to achieve a top of Min Cu Ft 1927 Coupling 0.00	3.45 8294 1 Stage % Excess 13	Collapse 1.72 ft from su Drilling Mud Wt 9.00 Design	Burst 2.45 Totals: Inface or a Calc MASP Factors	19,413 0 19,413 200 Req'd BOPE	2	a-B 4.62	a-C 3.25 asing>	330,02 ⁻ 0 330,02 ⁻ overlap. Min Dist Hole-Cpl 0.79 Weight 0
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35 #/ft	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467 Grade	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177 5 1/2	cdc-htq nded to achieve a top of Min Cu Ft 1927 Coupling 0.00	3.45 8294 1 Stage % Excess 13	Collapse 1.72 ft from su Drilling Mud Wt 9.00 Design	Burst 2.45 Totals: urface or a Calc MASP Factors Burst Totals:	19,413 0 19,413 200 Req'd BOPE	2	a-B 4.62	a-C 3.25 asing>	330,02 0 330,02 overlap. Min Dist Hole-Cpl 0.79 Weigh 0 0
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35 #/ft	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467 Grade	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177 5 1/2	cdc-htq nded to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00	3.45 8294 1 Stage % Excess 13 #N/A	Collapse 1.72 ft from su Drilling Mud Wt 9.00 <u>Design</u> Collapse	Burst 2.45 Totals: urface or a Calc MASP Factors Burst Totals:	19,413 0 19,413 200 Req'd BOPE	2	a-B 4.62	a-C 3.25 asing>	330,02 0 330,02 overlap. Min Dist Hole-Cpl 0.79 Weight 0 0 0 0 overlap.
#/ft 17.00 w/8.4#/g r Annular Volume 0.1733 yld > 1.35 #/ft w/8.4#/g r	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467 Grade nud, 30min Sfc Csg Test Cmt vol c	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177 5 1/2 psig: alc below includes	cdc-htq ided to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00 this csg, TOC intended	3.45 8294 1 Stage % Excess 13 #N/A	Collapse 1.72 ft from su Drilling Mud Wt 9.00 <u>Design</u> Collapse ft from su	Burst 2.45 Totals: urface or a Calc MASP Factors Burst	19,413 0 19,413 200 Req'd BOPE Length 0 0 0 #N/A	2	a-B 4.62	a-C 3.25 asing>	330,02 0 330,02 overlap. Min Dist Hole-Cpl 0.79 Weight 0 0 0 0 overlap. Min Dist
#/ft 17.00 w/8.4#/g r Volume 0.1733 y/d > 1.35 #/ft w/8.4#/g r Annular	Grade nud, 30min Sfc Csg Test The cement 1 Stage Cmt Sx 1467 Grade nud, 30min Sfc Csg Test Cmt vol c 1 Stage	p 110 psig: 2,046 volume(s) are inter 1 Stage CuFt Cmt 2177 5 1/2 psig: alc below includes 1 Stage	cdc-htq ided to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00 this csg, TOC intended Min	3.45 8294 1 Stage % Excess 13 #N/A #N/A 1 Stage	Collapse 1.72 ft from su Drilling Mud Wt 9.00 <u>Design</u> Collapse ft from su Drilling	Burst 2.45 Totals: urface or a Calc MASP Factors Burst	19,413 0 19,413 200 Req'd BOPE Length 0 0 0 0 #N/A Req'd	2	a-B 4.62	a-C 3.25 asing>	330,02 0 330,02 overlap. Min Dist Hole-Cpl 0.79 Weight 0 0
	Proposed to Mini Annular Volume 0.5563 ent(s) for Segmen casing #/ft 32.00	Proposed to Minimum Required Cem Annular 1 Stage Volume Cmt Sx 0.5563 574 ent(s) for Segment(s) A, B = , b All > (casing inside the #/ft Grade 32.00 w/8.4#/g mud, 30min Sfc Csg Test The cement Annular 1 Stage Volume Cmt Sx 0.1261 663 930	Volume 0.5563 Cmt Sx 574 CuFt Cmt 827 ent(s) for Segment(s) A, B = , b All > 0.70, OK. casing inside the 32.00 10 3/4 #/ft Grade 32.00 p 110 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are inter Annular 1 Stage Cmt Sx 1 Stage CuFt Cmt 0.1261 0.1261 663 1874 7052 930 -100	Corposed to Minimum Required Cement Volumes Annular 1 Stage 1 Stage Min Volume Cmt Sx CuFt Cmt Cu Ft 0.5563 574 827 491 ent(s) for Segment(s) A, B = , b All > 0.70, OK. All > 0.70, OK. ent(s) for Segment(s) A, B = , b All > 0.70, OK. Coupling 32.00 p 110 uss talon htq w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of Annular 1 Stage 1 Stage Min Volume Cmt Sx CuFt Cmt Cu Ft 0.1261 663 1874 1078 7052 930 -100 -100	proposed to Minimum Required Cement Volumes Annular 1 Stage 1 Stage Min 1 Stage Volume Cmt Sx CuFt Cmt Cu Ft % Excess 0.5563 574 827 491 68 ent(s) for Segment(s) A, B = , b All > 0.70, OK. One officient casing inside the 10 3/4 #/ft Grade Coupling Joint 32.00 p 110 uss talon htq 4.21 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0 Annular 1 Stage 1 Stage Min 1 Stage Volume Cmt Sx CuFt Cmt Cu Ft % Excess 0.1261 663 1874 1078 74 330 -100	proposed to Minimum Required Cement Volumes Annular 1 Stage 1 Stage Min 1 Stage Drilling Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt 0.5563 574 827 491 68 9.00 ent(s) for Segment(s) A, B = , b All > 0.70, OK. Off	Proposed to Minimum Required Cement Volumes Annular 1 Stage 1 Stage Min 1 Stage Drilling Calc Annular 1 Stage 1 Stage Min 1 Stage Min 1 Stage Mud Wt MASP 0.5563 574 827 491 68 9.00 2764 ent(s) A, B = , b All > 0.70, OK. Design Factors Casing inside the 10 3/4 Design Factors Casing inside the 10 3/4 Design Factors W/R.4#/g Grade Coupling Joint Collapse Burst 32.00 p 110 uss talon htq 4.21 0.98 2.05 W/8.4#/g mud, 30min Sfc Csg Test psig: Totals: The cement volume(s) are intended to achieve a top of 0 ft from surface or a Num of \$x CuFt Cmt Cu Ft Volume CuFt Cmt Cu Ft Min 1 Stage Mud Wt </td <td>w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Proposed to Minimum Required Cement Volumes 1 Stage Min 1 Stage Drilling Calc Req'd Annular 1 Stage 1 Stage Min 1 Stage Mud Wt MASP BOPE Volume Cmt Sx Cu Ft Cmt Cu Ft % Excess Mud Wt MASP BOPE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Deptint (mperodocs on F) or per OC) LID AL ner Design Factors #/ft Grade Coupling Joint Collapse Burst Length 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 w/8.4#/g mud, 30min Sfc Csg Test psig: Totals: 882 Min 1 Stage 0 ft from surface or a 882 Volume Cmt Sx 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd 0.1261 663 1 874</td> <td>w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Annular 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP BOPE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Denvin (ppercent t or C) or per OOL III D.41 and hourd ent(s) for Segment(s) A, B = , b All > 0.70, OK. Design Factors Entote to Clapse Burst Length B@s 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 2 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 Min 1 Stage 0.182 calc Reg'd Volume Cmt Sx CuFt Cmt Cu Ft % Excess 74 10.50 2030 301</td> <td>w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Annular 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd BOPE Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP BOPE Stage 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Stop pint (mpc racio S or Di er per OO Di II) D.41 and hourd Int 1 #/ft Grade Coupling Joint Collapse Burst Length B@s a.B 32.00 p 110 uss talon htq 4.21 0.98 2.05 8.494 2 3.88 w/8.4#/g mud, 30min Sfc Csg Test psig: Totals: 8.494 The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 It is tage Min 1 Stage Mud Wt MASP BOPE It is is</td> <td>w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Proposed to Minimum Required Cement Volumes Min 1 Stage Drilling Calc Req'd B0PE Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP B0PE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Step pint (mpc min 5 or f) to pint CO 1110 14 nmt fund) Int 1 #/ft Grade Io 3/4 Coupling Joint Collapse Burst Length B@s a-B a-C 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 2 3.88 1.64 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 9.09 2.05 8,494 2 3.88 1.64 W/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0.11078 ft from surface or a 882 9.09 9.09 2.0</td>	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Proposed to Minimum Required Cement Volumes 1 Stage Min 1 Stage Drilling Calc Req'd Annular 1 Stage 1 Stage Min 1 Stage Mud Wt MASP BOPE Volume Cmt Sx Cu Ft Cmt Cu Ft % Excess Mud Wt MASP BOPE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Deptint (mperodocs on F) or per OC) LID AL ner Design Factors #/ft Grade Coupling Joint Collapse Burst Length 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 w/8.4#/g mud, 30min Sfc Csg Test psig: Totals: 882 Min 1 Stage 0 ft from surface or a 882 Volume Cmt Sx 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd 0.1261 663 1 874	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Annular 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP BOPE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Denvin (ppercent t or C) or per OOL III D.41 and hourd ent(s) for Segment(s) A, B = , b All > 0.70, OK. Design Factors Entote to Clapse Burst Length B@s 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 2 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 Min 1 Stage 0.182 calc Reg'd Volume Cmt Sx CuFt Cmt Cu Ft % Excess 74 10.50 2030 301	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Annular 1 Stage 1 Stage Min 1 Stage Drilling Calc Req'd BOPE Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP BOPE Stage 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Stop pint (mpc racio S or Di er per OO Di II) D.41 and hourd Int 1 #/ft Grade Coupling Joint Collapse Burst Length B@s a.B 32.00 p 110 uss talon htq 4.21 0.98 2.05 8.494 2 3.88 w/8.4#/g mud, 30min Sfc Csg Test psig: Totals: 8.494 The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 It is tage Min 1 Stage Mud Wt MASP BOPE It is	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500 Tail Cmt does not circ to sfc. Totals: 882 Proposed to Minimum Required Cement Volumes Min 1 Stage Drilling Calc Req'd B0PE Volume Cmt Sx CuFt Cmt Cu Ft % Excess Mud Wt MASP B0PE 0.5563 574 827 491 68 9.00 2764 3M ent(s) for Segment(s) A, B = , b All > 0.70, OK. Step pint (mpc min 5 or f) to pint CO 1110 14 nmt fund) Int 1 #/ft Grade Io 3/4 Coupling Joint Collapse Burst Length B@s a-B a-C 32.00 p 110 uss talon htq 4.21 0.98 2.05 8,494 2 3.88 1.64 w/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0 ft from surface or a 882 9.09 2.05 8,494 2 3.88 1.64 W/8.4#/g mud, 30min Sfc Csg Test psig: The cement volume(s) are intended to achieve a top of 0.11078 ft from surface or a 882 9.09 9.09 2.0

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1. Geologic Formations

TVD of target	9302	Pilot hole depth	N/A
MD at TD:	19413	Deepest expected fresh water	

Basin

Dushi		Weter/Minerel	
	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		
Leonard	8636		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

		Wt				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	BTC	0	950	0	950
9 7/8	8 5/8	32	P110HP	Talon	0	8494	0	8494
7 7/8	5 1/2	17	P110HP	CDC HTQ	0	19413	0	9302

2. Casing Program (Primary Design)

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

3. Cementing Program (Primary Design)

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing	# Sks	тос	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	574	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	494	Surf	13.0	2.3	2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives
Int I	169	7094	13.2	1.44	Tail: Class H / C + additives
Production	35	7994	9	3.27	Lead: Class H /C + additives
Froduction	1432	8594	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%
Prod	10%

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		~	Tested to:
			Anı	nular	X	50% of rated working pressure
Int 1	13-5/8"	5M		d Ram	Х	
Int 1	15 5/0	5101	1	Ram		5M
			Doub	le Ram	X	5101
			Other*			
	13-5/8"		Annul	Annular (5M)		50% of rated working pressure
Production		5M	Blind Ram		Х	
Troduction		5101	Pipe Ram Double Ram			5M
					X	5101
			Other*			
			Annul	ar (5M)		
			Blind	d Ram		
			Pipe Ram			
			Doub	le Ram		
			Other*			
N A variance is requested for	the use of a	a diverter or	the surface	casing. See	attached for	schematic.
Y A variance is requested to a	run a 5 M a	nnular on a	10M system	1		

4. Pressure Control Equipment (Three String Design)

5. Mud Program (Three String Design)

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

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
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6. Logging and Testing Procedures

Logging, C	oring and Testing
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the
Х	Completion Rpeort 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.

Additional	logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
Х	CBL	Production casing
Х	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4353
Abnormal temperature	No

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

Hydrogren S	Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations				
greater than	greater than 100 ppm, the operator will comply with the provisions of 43 CFR 3176. If Hydrogen Sulfide is encountered				
measured va	lues and formations will be provided to the BLM.				
Ν	H2S is present				
Y	H2S plan attached.				

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 regu

 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

Page 22 of 34

U. S. Steel Tubular Products 5.500" 17.00lb/ft (0.304" Wall) P110 HP USS-CDC HTQ[®]

MECHANICAL PROPERTIES	Pipe	USS-CDC HTQ [®]		
Minimum Yield Strength	125,000		psi	
Maximum Yield Strength	140,000		psi	
Minimum Tensile Strength	130,000		psi	
DIMENSIONS	Pipe	USS-CDC HTQ [®]		
Outside Diameter	5.500	6.300	in.	
Wall Thickness	0.304		in.	
Inside Diameter	4.892	4.892	in.	
Standard Drift	4.767	4.767	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	17.00		lb/ft	
Plain End Weight	16.89		lb/ft	
ECTION AREA	Pipe	USS-CDC HTQ [®]		
Critical Area	4.962	4.962	sq. in.	
Joint Efficiency		97.1	%	
PERFORMANCE	Pipe	USS-CDC HTQ [®]		
Minimum Collapse Pressure	9,440	9,440	psi	
External Pressure Leak Resistance		7,550	psi	
Minimum Internal Yield Pressure	12,090	12,090	psi	
Minimum Pipe Body Yield Strength	620,000		lb	
Joint Strength		602,000	lb	
Compression Rating		361,000	lb	
Reference Length		23,608	ft	
Maximum Uniaxial Bend Rating		60.7	deg/100 ft	
IAKE-UP DATA	Pipe	USS-CDC HTQ [®]		
Make-Up Loss		4.63	in.	
Minimum Make-Up Torque		11,000	ft-lb	
Maximum Make-Up Torque		15,500	ft-lb	
Connection Yield Torque		19,200	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[®] (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

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 pressurecontaining 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		Х	Х	Х
Blind Rams		X		Х
Lower Rams				Х
Outside Kill Valve		Х	Х	Х
Inside Kill Valve		Х	Х	Х
Kill Line Check Valve		Х	Х	Х
Inside Choke Valve		Х	Х	X
HCR		Х	Х	Х
Kill Line	х			Х
Annular		Х		Х
Choke Manifold Valves and Hose	Х			X
Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line)	Х			X
Standpipe Valve	Х			X
IBOP (Upper and Lower)	Х			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 8.625" 32.00lb/ft (0.352" Wall) P1

D110 HD	USS-TALON	нто™	PD
Г П П П Г	USS-TALUN		Rυ

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]

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.
- 6. Coupling must meet minimum mechanical properties of the pipe.

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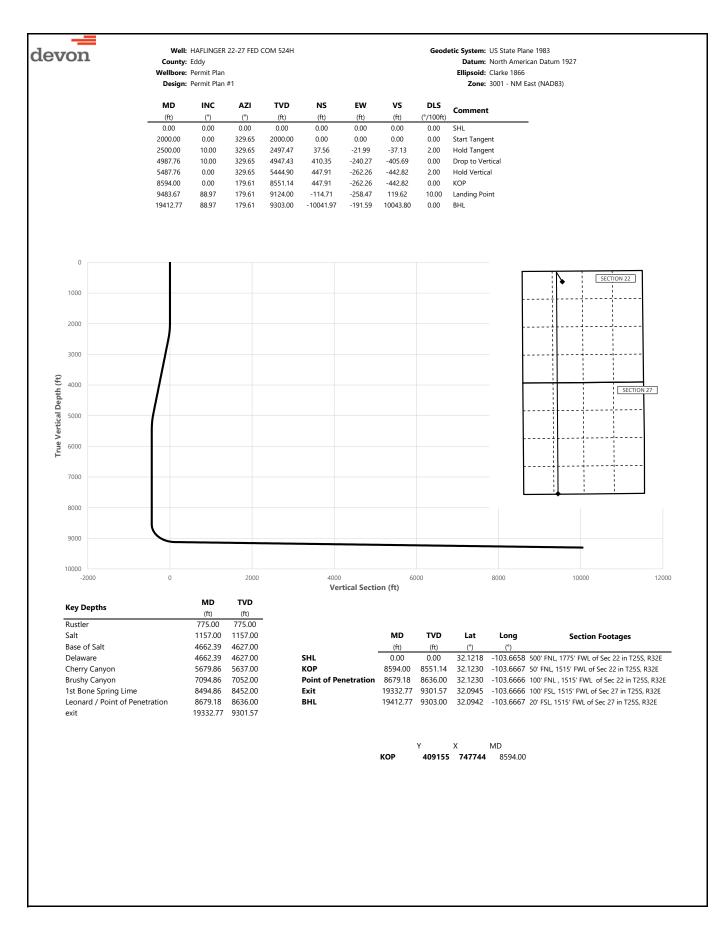
U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com





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



		County:	Eddy Permit Plan						Geodetic System: US State Plane 1983 Datum: North American Datum 1927 Ellipsoid: Clarke 1866
			Permit Plan Permit Plan						Zone: 3001 - NM East (NAD83)
	MD (ft)	INC	AZI	TVD	NS (ft)	EW	VS (ft)	DLS (°/100ft)	Comment
	0.00	(°) 0.00	(°) 0.00	(ft) 0.00	0.00	(ft) 0.00	(ft) 0.00	0.00	SHL
	100.00	0.00	329.65	100.00	0.00	0.00	0.00	0.00	
	200.00	0.00	329.65	200.00	0.00	0.00	0.00	0.00	
	300.00	0.00	329.65	300.00	0.00	0.00	0.00	0.00	
	400.00	0.00	329.65	400.00	0.00	0.00	0.00	0.00	
	500.00	0.00	329.65	500.00	0.00	0.00	0.00	0.00	
	600.00 700.00	0.00 0.00	329.65 329.65	600.00 700.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	
	775.00	0.00	329.65	700.00	0.00	0.00	0.00	0.00	Rustler
	800.00	0.00	329.65	800.00	0.00	0.00	0.00	0.00	
	900.00	0.00	329.65	900.00	0.00	0.00	0.00	0.00	
	1000.00	0.00	329.65	1000.00	0.00	0.00	0.00	0.00	
	1100.00	0.00	329.65	1100.00	0.00	0.00	0.00	0.00	
	1157.00	0.00	329.65	1157.00	0.00	0.00	0.00	0.00	Salt
	1200.00	0.00	329.65	1200.00	0.00	0.00	0.00	0.00	
	1300.00	0.00	329.65	1300.00	0.00	0.00	0.00	0.00	
	1400.00 1500.00	0.00 0.00	329.65 329.65	1400.00 1500.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	
	1600.00	0.00	329.65	1600.00	0.00	0.00	0.00	0.00	
	1700.00	0.00	329.65	1700.00	0.00	0.00	0.00	0.00	
	1800.00	0.00	329.65	1800.00	0.00	0.00	0.00	0.00	
	1900.00	0.00	329.65	1900.00	0.00	0.00	0.00	0.00	
	2000.00	0.00	329.65	2000.00	0.00	0.00	0.00	0.00	Start Tangent
	2100.00	2.00	329.65	2099.98	1.51	-0.88	-1.49	2.00	
	2200.00	4.00	329.65	2199.84	6.02	-3.53	-5.95	2.00	
	2300.00 2400.00	6.00 8.00	329.65 329.65	2299.45 2398.70	13.54 24.06	-7.93 -14.09	-13.39 -23.79	2.00 2.00	
	2400.00 2500.00	10.00	329.65	2398.70 2497.47	37.56	-21.99	-23.79	2.00	Hold Tangent
	2600.00	10.00	329.65	2595.95	52.54	-30.77	-51.95	0.00	The rangent
	2700.00	10.00	329.65	2694.43	67.53	-39.54	-66.76	0.00	
;	2800.00	10.00	329.65	2792.91	82.51	-48.31	-81.58	0.00	
	2900.00	10.00	329.65	2891.39	97.50	-57.09	-96.39	0.00	
	3000.00	10.00	329.65	2989.87	112.48	-65.86	-111.21	0.00	
	3100.00	10.00	329.65	3088.35	127.47	-74.64	-126.02	0.00	
	3200.00 3300.00	10.00 10.00	329.65 329.65	3186.83 3285.31	142.45 157.44	-83.41 -92.18	-140.84 -155.65	0.00 0.00	
	3400.00	10.00	329.65	3383.79	172.42	-100.96	-170.47	0.00	
	3500.00	10.00	329.65	3482.27	187.41	-109.73	-185.28	0.00	
	3600.00	10.00	329.65	3580.75	202.39	-118.51	-200.10	0.00	
	3700.00	10.00	329.65	3679.23	217.38	-127.28	-214.91	0.00	
	3800.00	10.00	329.65	3777.72	232.36	-136.06	-229.73	0.00	
	3900.00	10.00	329.65	3876.20	247.35	-144.83	-244.54	0.00	
	4000.00	10.00	329.65	3974.68 4073.16	262.33	-153.60	-259.36	0.00 0.00	
	4100.00 4200.00	10.00 10.00	329.65 329.65	4073.16	277.32 292.30	-162.38 -171.15	-274.17 -288.98	0.00	
	4300.00	10.00	329.65	4270.12	307.29	-179.93	-303.80	0.00	
	4400.00	10.00	329.65	4368.60	322.27	-188.70	-318.61	0.00	
	4500.00	10.00	329.65	4467.08	337.26	-197.47	-333.43	0.00	
	4600.00	10.00	329.65	4565.56	352.24	-206.25	-348.24	0.00	
	4662.39	10.00	329.65	4627.00	361.59	-211.72	-357.49	0.00	Base of Salt, Delaware
	4700.00	10.00	329.65	4664.04	367.23	-215.02	-363.06 -377.87	0.00	
	4800.00 4900.00	10.00 10.00	329.65 329.65	4762.52 4861.00	382.21 397.20	-223.80 -232.57	-377.87 -392.69	0.00 0.00	
	4987.76	10.00	329.65	4947.43	410.35	-240.27	-405.69	0.00	Drop to Vertical
	5000.00	9.76	329.65	4959.49	412.16	-241.33	-407.48	2.00	
	5100.00	7.76	329.65	5058.32	425.30	-249.02	-420.47	2.00	
	5200.00	5.76	329.65	5157.62	435.45	-254.96	-430.50	2.00	
	5300.00	3.76	329.65	5257.27	442.60	-259.15	-437.58	2.00	
	5400.00	1.76	329.65	5357.15	446.75	-261.58	-441.68	2.00	
	5487.76	0.00	329.65	5444.90	447.91	-262.26	-442.82	2.00	Hold Vertical
	5500.00	0.00	179.61	5457.14	447.91	-262.26	-442.82	0.00	
	5600.00 5679.86	0.00 0.00	179.61 179.61	5557.14 5637.00	447.91 447.91	-262.26 -262.26	-442.82 -442.82	0.00 0.00	Cherry Canyon
	5700.00	0.00	179.61	5637.00 5657.14	447.91 447.91	-262.26	-442.82 -442.82	0.00	chery canyon
	5800.00	0.00	179.61	5757.14	447.91	-262.26	-442.82	0.00	
	5900.00	0.00	179.61	5857.14	447.91	-262.26	-442.82	0.00	
	6000.00	0.00	179.61	5957.14	447.91	-262.26	-442.82	0.00	
	6100.00	0.00	179.61	6057.14	447.91	-262.26	-442.82	0.00	
	6200.00	0.00	179.61	6157.14	447.91	-262.26	-442.82	0.00	
	6300.00	0.00	179.61	6257.14	447.91	-262.26	-442.82	0.00	

. —		MA-II		R 22-27 FED (OM 52/11				Geodetic System: US State Plane 1983
devon		County:		K 22-27 FED (Datum: North American Datum 1927
		-	Permit Plar	ı					Ellipsoid: Clarke 1866
		Design:	Permit Plar	n #1					Zone: 3001 - NM East (NAD83)
	MD	INC	AZI	TVD	NS	EW	vs		
	(ft)	(°)	(°)	(ft)	(ft)	E VV (ft)	VS (ft)	DLS (°/100ft)	Comment
-	6400.00	0.00	179.61	6357.14	447.91	-262.26	-442.82	0.00	
	6500.00	0.00	179.61	6457.14	447.91	-262.26	-442.82	0.00	
	6600.00	0.00	179.61	6557.14	447.91	-262.26	-442.82	0.00	
	6700.00 6800.00	0.00 0.00	179.61 179.61	6657.14 6757.14	447.91 447.91	-262.26 -262.26	-442.82 -442.82	0.00 0.00	
	6900.00	0.00	179.61	6857.14	447.91	-262.26	-442.82	0.00	
	7000.00	0.00	179.61	6957.14	447.91	-262.26	-442.82	0.00	
	7094.86	0.00	179.61	7052.00	447.91	-262.26	-442.82	0.00	Brushy Canyon
	7100.00 7200.00	0.00 0.00	179.61 179.61	7057.14 7157.14	447.91 447.91	-262.26 -262.26	-442.82 -442.82	0.00 0.00	
	7300.00	0.00	179.61	7257.14	447.91	-262.26	-442.82	0.00	
	7400.00	0.00	179.61	7357.14	447.91	-262.26	-442.82	0.00	
	7500.00	0.00	179.61	7457.14	447.91	-262.26	-442.82	0.00	
	7600.00 7700.00	0.00 0.00	179.61 179.61	7557.14 7657.14	447.91 447.91	-262.26 -262.26	-442.82 -442.82	0.00 0.00	
	7800.00	0.00	179.61	7757.14	447.91	-262.26	-442.82	0.00	
	7900.00	0.00	179.61	7857.14	447.91	-262.26	-442.82	0.00	
	8000.00	0.00	179.61	7957.14	447.91	-262.26	-442.82	0.00	
	8100.00 8200.00	0.00	179.61 179.61	8057.14	447.91 447.91	-262.26 -262.26	-442.82 -442.82	0.00 0.00	
	8200.00	0.00 0.00	179.61	8157.14 8257.14	447.91	-262.26	-442.82	0.00	
	8400.00	0.00	179.61	8357.14	447.91	-262.26	-442.82	0.00	
	8494.86	0.00	179.61	8452.00	447.91	-262.26	-442.82	0.00	1st Bone Spring Lime
	8500.00	0.00	179.61	8457.14	447.91	-262.26	-442.82	0.00	
	8594.00 8600.00	0.00 0.60	179.61 179.61	8551.14 8557.14	447.91 447.88	-262.26 -262.26	-442.82 -442.79	0.00 10.00	КОР
	8679.18	8.52	179.61	8636.00	441.59	-262.22	-436.51	10.00	Leonard / Point of Penetration
	8700.00	10.60	179.61	8656.53	438.13	-262.20	-433.05	10.00	
	8800.00	20.60	179.61	8752.73	411.27	-262.01	-406.20	10.00	
	8900.00 9000.00	30.60 40.60	179.61 179.61	8842.80 8924.00	368.12 309.98	-261.72 -261.33	-363.06 -304.94	10.00 10.00	
	9100.00	50.60	179.61	8993.88	238.63	-260.85	-233.61	10.00	
	9200.00	60.60	179.61	9050.30	156.22	-260.30	-151.23	10.00	
	9300.00	70.60	179.61	9091.56	65.27	-259.68	-60.31	10.00	
	9400.00 9483.67	80.60 88.97	179.61 179.61	9116.40 9124.00	-31.46 -114.71	-259.03 -258.47	36.40 119.62	10.00 10.00	Landing Point
	9500.00	88.97	179.61	9124.29	-131.04	-258.36	135.94	0.00	
	9600.00	88.97	179.61	9126.10	-231.02	-257.69	235.89	0.00	
	9700.00	88.97	179.61	9127.90	-331.00	-257.01	335.84	0.00	
	9800.00 9900.00	88.97 88.97	179.61 179.61	9129.70 9131.51	-430.98 -530.96	-256.34 -255.67	435.79 535.74	0.00 0.00	
	10000.00	88.97	179.61	9133.31	-630.94	-254.99	635.69	0.00	
	10100.00	88.97	179.61	9135.11	-730.92	-254.32	735.64	0.00	
	10200.00	88.97	179.61	9136.91	-830.91	-253.64	835.59	0.00	
	10300.00 10400.00	88.97 88.97	179.61 179.61	9138.72 9140.52	-930.89 -1030.87	-252.97 -252.30	935.54 1035.49	0.00 0.00	
	10500.00	88.97	179.61	9142.32	-1130.85	-251.62	1135.44	0.00	
	10600.00	88.97	179.61	9144.13	-1230.83	-250.95	1235.39	0.00	
	10700.00	88.97	179.61	9145.93 9147.73	-1330.81	-250.27	1335.35	0.00	
	10800.00 10900.00	88.97 88.97	179.61 179.61	9147.73 9149.54	-1430.79 -1530.78	-249.60 -248.93	1435.30 1535.25	0.00 0.00	
	11000.00	88.97	179.61	9151.34	-1630.76	-248.25	1635.20	0.00	
	11100.00	88.97	179.61	9153.14	-1730.74	-247.58	1735.15	0.00	
	11200.00	88.97	179.61	9154.94	-1830.72	-246.91 -246.23	1835.10	0.00	
	11300.00 11400.00	88.97 88.97	179.61 179.61	9156.75 9158.55	-1930.70 -2030.68	-246.23	1935.05 2035.00	0.00 0.00	
	11500.00	88.97	179.61	9160.35	-2130.66	-244.88	2134.95	0.00	
	11600.00	88.97	179.61	9162.16	-2230.65	-244.21	2234.90	0.00	
	11700.00	88.97	179.61	9163.96	-2330.63	-243.54	2334.85	0.00	
	11800.00 11900.00	88.97 88.97	179.61 179.61	9165.76 9167.56	-2430.61 -2530.59	-242.86 -242.19	2434.80 2534.75	0.00 0.00	
	12000.00	88.97 88.97	179.61	9167.56 9169.37	-2530.59	-242.19	2534.75 2634.70	0.00	
	12100.00	88.97	179.61	9171.17	-2730.55	-240.84	2734.65	0.00	
	12200.00	88.97	179.61	9172.97	-2830.54	-240.17	2834.60	0.00	
	12300.00 12400.00	88.97 88.97	179.61	9174.78	-2930.52 -3030.50	-239.49 -238.82	2934.55	0.00 0.00	
	12400.00	88.97 88.97	179.61 179.61	9176.58 9178.38	-3030.50 -3130.48	-238.82 -238.15	3034.50 3134.45	0.00	
	12600.00	88.97	179.61	9180.18	-3230.46	-237.47	3234.40	0.00	
	12700.00	88.97	179.61	9181.99	-3330.44	-236.80	3334.35	0.00	
	12800.00	88.97	179.61	9183.79	-3430.42	-236.12	3434.30	0.00	

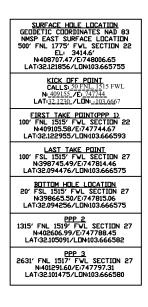
1		County: Wellbore:			COM 524H				Ellipsoid:	North American Datum 1927 Clarke 1866 3001 - NM East (NAD83)
	MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment	
-	12900.00	88.97	179.61	9185.59	-3530.41	-235.45	3534.25	0.00		<u> </u>
	13000.00	88.97	179.61	9187.40	-3630.39	-234.78	3634.21	0.00		
	13100.00	88.97	179.61	9189.20	-3730.37	-234.10	3734.16	0.00		
	13200.00	88.97	179.61	9191.00	-3830.35	-233.43	3834.11	0.00		
	13300.00	88.97	179.61	9192.81	-3930.33	-232.75	3934.06	0.00		
	13400.00	88.97	179.61	9194.61	-4030.31	-232.08	4034.01	0.00		
	13500.00	88.97	179.61	9196.41	-4130.29	-231.41	4133.96	0.00		
	13600.00	88.97	179.61	9198.21	-4230.28	-230.73	4233.91	0.00		
	13700.00	88.97	179.61	9200.02	-4330.26	-230.06	4333.86	0.00		
	13800.00 13900.00	88.97	179.61	9201.82 9203.62	-4430.24 -4530.22	-229.39 -228.71	4433.81	0.00 0.00		
	14000.00	88.97 88.97	179.61 179.61	9203.62 9205.43	-4530.22 -4630.20	-228.71	4533.76 4633.71	0.00		
	14000.00	88.97	179.61	9205.43	-4730.18	-227.36	4733.66	0.00		
	14200.00	88.97	179.61	9209.03	-4830.16	-226.69	4833.61	0.00		
	14300.00	88.97	179.61	9210.83	-4930.15	-226.02	4933.56	0.00		
	14400.00	88.97	179.61	9212.64	-5030.13	-225.34	5033.51	0.00		
	14500.00	88.97	179.61	9214.44	-5130.11	-224.67	5133.46	0.00		
	14600.00	88.97	179.61	9216.24	-5230.09	-223.99	5233.41	0.00		
	14700.00	88.97	179.61	9218.05	-5330.07	-223.32	5333.36	0.00		
	14800.00	88.97	179.61	9219.85	-5430.05	-222.65	5433.31	0.00		
	14900.00	88.97	179.61	9221.65	-5530.04	-221.97	5533.26	0.00		
	15000.00 15100.00	88.97 88.97	179.61 179.61	9223.45 9225.26	-5630.02 -5730.00	-221.30 -220.63	5633.21 5733.16	0.00 0.00		
	15200.00	88.97 88.97	179.61	9225.26 9227.06	-5730.00	-220.63	5733.16	0.00		
	15300.00	88.97	179.61	9228.86	-5929.96	-219.95	5933.06	0.00		
	15400.00	88.97	179.61	9230.67	-6029.94	-218.60	6033.02	0.00		
	15500.00	88.97	179.61	9232.47	-6129.92	-217.93	6132.97	0.00		
	15600.00	88.97	179.61	9234.27	-6229.91	-217.26	6232.92	0.00		
	15700.00	88.97	179.61	9236.07	-6329.89	-216.58	6332.87	0.00		
	15800.00	88.97	179.61	9237.88	-6429.87	-215.91	6432.82	0.00		
	15900.00	88.97	179.61	9239.68	-6529.85	-215.23	6532.77	0.00		
	16000.00	88.97	179.61	9241.48	-6629.83	-214.56	6632.72	0.00		
	16100.00	88.97	179.61	9243.29	-6729.81	-213.89	6732.67	0.00		
	16200.00	88.97	179.61	9245.09	-6829.79 -6929.78	-213.21	6832.62	0.00		
	16300.00 16400.00	88.97 88.97	179.61 179.61	9246.89 9248.70	-7029.76	-212.54 -211.87	6932.57 7032.52	0.00 0.00		
	16500.00	88.97	179.61	9250.50	-7129.74	-211.19	7132.47	0.00		
	16600.00	88.97	179.61	9252.30	-7229.72	-210.52	7232.42	0.00		
	16700.00	88.97	179.61	9254.10	-7329.70	-209.84	7332.37	0.00		
	16800.00	88.97	179.61	9255.91	-7429.68	-209.17	7432.32	0.00		
	16900.00	88.97	179.61	9257.71	-7529.66	-208.50	7532.27	0.00		
	17000.00	88.97	179.61	9259.51	-7629.65	-207.82	7632.22	0.00		
	17100.00	88.97	179.61	9261.32	-7729.63	-207.15	7732.17	0.00		
	17200.00	88.97	179.61	9263.12	-7829.61	-206.47	7832.12	0.00		
	17300.00	88.97	179.61	9264.92	-7929.59	-205.80	7932.07	0.00		
	17400.00 17500.00	88.97 88.97	179.61 179.61	9266.72 9268.53	-8029.57 -8129.55	-205.13	8032.02 8131.97	0.00		
	17600.00	88.97 88.97	179.61 179.61	9268.53 9270.33	-8129.55 -8229.53	-204.45 -203.78	8131.97 8231.92	0.00 0.00		
	17700.00	88.97	179.61	9270.33 9272.13	-8329.55	-203.78	8331.88	0.00		
	17800.00	88.97	179.61	9273.94	-8429.50	-202.43	8431.83	0.00		
	17900.00	88.97	179.61	9275.74	-8529.48	-201.76	8531.78	0.00		
	18000.00	88.97	179.61	9277.54	-8629.46	-201.08	8631.73	0.00		
	18100.00	88.97	179.61	9279.34	-8729.44	-200.41	8731.68	0.00		
	18200.00	88.97	179.61	9281.15	-8829.42	-199.74	8831.63	0.00		
	18300.00	88.97	179.61	9282.95	-8929.41	-199.06	8931.58	0.00		
	18400.00	88.97	179.61	9284.75	-9029.39	-198.39	9031.53	0.00		
	18500.00	88.97	179.61	9286.56	-9129.37	-197.71	9131.48	0.00		
	18600.00	88.97	179.61	9288.36	-9229.35	-197.04	9231.43	0.00		
	18700.00	88.97 88.97	179.61	9290.16	-9329.33	-196.37	9331.38	0.00		
	18800.00 18900.00	88.97 88.97	179.61 179.61	9291.97 9293.77	-9429.31 -9529.29	-195.69 -195.02	9431.33 9531.28	0.00 0.00		
	19000.00	88.97 88.97	179.61	9293.77 9295.57	-9529.29 -9629.28	-195.02	9531.28 9631.23	0.00		
	19000.00	88.97	179.61	9295.37	-9729.26	-194.35	9731.18	0.00		
	19200.00	88.97	179.61	9299.18	-9829.24	-193.00	9831.13	0.00		
	19300.00	88.97	179.61	9300.98	-9929.22	-192.32	9931.08	0.00		
	19332.77	88.97	179.61	9301.57	-9961.98	-192.10	9963.84	0.00	exit	
	19400.00	88.97	179.61	9302.78	-10029.20	-191.65	10031.03	0.00		
	19412.77	88.97	179.61	9303.00	-10041.97	-191.59	10043.80	0.00	BHL	

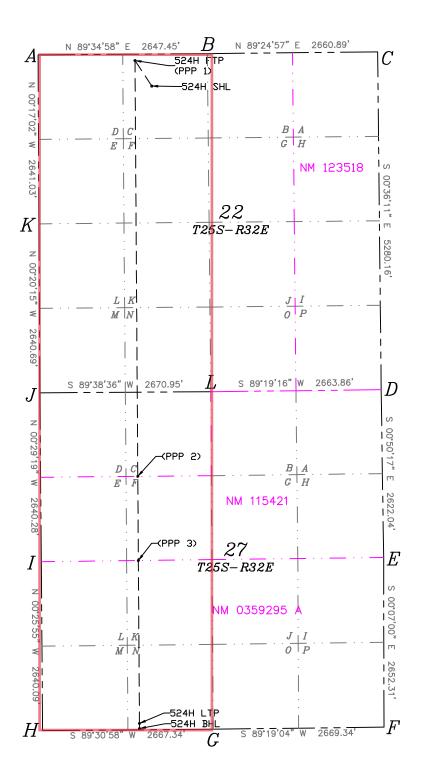
$\frac{C-102}{Submit Electronically}$					ls & Natura	New Mexico al Resources Dep FION DIVISI		Revised July, 2024				
	Dermitting								Initial Submittal			
								Submittal Type:	Amended Report			
									As Drilled			
				W	ELL LOCAT	ION INFORMATIO	DN					
	umber		Pool Cod			Pool Name						
30-025-50061 [97838] Property Code Property Name						JENNING	S;UPPER	BONE S	PRING SHALE			
HAFLINGER						R 22-27 FED CO	R 22–27 FED COM 524H					
OGRID No. 6137 DEVON ENERGY PR						PODUCTION COMP	Ground Level Eleva					
6137 DEVON Surface Owner: State Fee									3414.6'			
Suriac	ce Uwner:		ree 🗆 Irii	al Xrec	ierai	Mineral Owner:			ribal 🛛 Federal			
					Sur	face Location						
UL	Section	Township	Range	Lot	Ft. from N		Latitude		Longitude	County		
С	22	25-S	32-E		500'N	1775' W	32.121	856	103.665755	LEA		
					Botto	m Hole Location						
UL	Section	Township	Range	Lot	Ft. from N		Latitude		Longitude	County		
Ν	27	25-S	32-E		20' S	1515'W	32.094	256	103.666575	LEA		
							. (()					
				Defining	Well API Over	rlapping Spacing Un	it (Y/N)	Consolida	ation Code			
640.		INFILL	,									
)rder	Numbers				Well	setbacks are under Common Ownership: 🗆 Yes 🗆 No						
					Kick Of	ff Point (KOP)						
UL	Section	Township	Range	Lot	Ft. from N	/S Ft. from E/W	Latitude		Longitude	County		
С	22	25-S	32-Е		50' N	1515' W	32.1230		-103.6667	LEA		
			I		First T	ake Point (FTP)						
UL	Section	Township	Range	Lot	Ft. from N	/S Ft. from E/W	Latitude		Longitude	County		
С	22	25-S	32-E		100' N	1515' W	32.122	955	103.666593	LEA		
					Last T	ake Point (LTP)						
UL	Section	Township	Range	Lot	Ft. from N	/S Ft. from E/W	Latitude		Longitude	County		
Ν	27	25-S	32-E		100'S	1515' W	32.094	476	103.666575	LEA		
					Spacing	Unit Type Horizor	ital Verti	cal G	round Floor Ele	vation:		
I hereby of my kn organizat including location j mineral i	owledge and b tion either owr g the proposed pursuant to a c	information con- belief, and, if the s a working inter- bottom hole loc ontract with an or voluntary pooli	well is a vertice erest or unlease ation or has a r owner of a wor	cal or direction d mineral intright to drill t king interest		SURVEYOR CERTIFI I hereby certify that the w of actual surveys made by correct to the best of my b	ell location sho me or under s		nd that the same is true	and DEHOL		
If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.									PROTES	No N		
Signature Date						Signature and Sea	l of Profe	ssional S	urveyor /ONAL	50 -		
Am	ıy A. Brov	vn										
Printe	ed Name					Certificate Number	Date of	Survey				
amy	y.brown@ 1 Address	dvn.com				23261	12/20	24				
Linai	. Autress					~~~~	1~7~0	~ 1				

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.





A=N:409194.54/E:746229.21 B=N:409213.82/E:748876.59 C=N:409240.94/E:751537.34 D=N:403961.08/E:751592.91 E=N:401339.32/E:751631.26 F=N:398655.22/E:748967.51 H=N:398655.22/E:748967.51 H=N:398655.22/E:748967.51 H=N:398632.70/E:746280.36 J=N:401272.71/E:746280.36 J=N:403912.90/E:746257.84 K=N:406553.54/E:746242.29 L=N:403929.52/E:748928.74 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

Ope	rator:	OGRID:	1
	DEVON ENERGY PRODUCTION COMPANY, LP	6137	l
	333 West Sheridan Ave.	Action Number:	l
	Oklahoma City, OK 73102	453610	1
		Action Type:	l
		[C-103] NOI Change of Plans (C-103A)	1

CONDITIONS

CONDITIONO		
Created By	Condition	Condition Date
matthew.gomez	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	5/12/2025
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	5/12/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	5/12/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	5/12/2025
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	5/12/2025

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Action 453610