

Well Name: VAN DOO DAH 28-33 FED COM	Well Location: T25S / R32E / SEC 28 / NWNE / 32.1073739 / -103.6775978	County or Parish/State: LEA / NM
Well Number: 625H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC062300	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549509	Operator: DEVON ENERGY PRODUCTION COMPANY LP	

Notice of Intent

Sundry ID: 2837578

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 02/19/2025	Time Sundry Submitted: 09:33
Date proposed operation will begin: 02/19/2025	

Procedure Description: Devon Energy Production Co., L.P. (Devon) respectfully requests a SHL/BHL move, name change, depth / formation change and casing plan change for the subject well. We have also included break testing and off-line cement variances. Please see attached revised C102, Drill plan, directional plan and variance attachments. Permitted Well Name: Van Doo Dah 28-33 Fed Com 625H Requested Well Name: Cotton Draw Unit 655H Permitted SHL: 475' FNL, 1890 FEL, T 25S, R 32E, Sec 28, NWNE Requested SHL: 325' FNL, 1660' FEL, T 25S, R 32E, Sec 28, NWNE Permitted BHL: 20' FSL, 1890' FEL, T 25S, R 32E, Sec 33, SWSE Requested BHL: 20' FNL, 450' FEL, T 25S, R 32E, Sec 16, NENE Permitted Formation: WC-025 G-07 S253216D; UPPER WOLFCAMP Requested Formation: WC-025 G-06 S253206M; BONE SPRING Permitted TVD and MD: 12020 / 22220 Requested TVD and MD: 10016 / 20334

NOI Attachments

Procedure Description

- Offline_Cementing___Variance_Request_20250219093115.pdf
- Break_Test_Variance_BOP_2_3_2025_20250219093049.pdf
- 5.5_20lb_P110HP_TALON_RD_20250219093032.pdf
- 8.625_32lb_P110_HP_TALON_RD_20250219093008.pdf
- 10.75_45.5lb_J55_BTC_20250219092935.pdf
- WA018195174_COTTON_DRAW_UNIT_655H_WL_R0_SIGNED_20250219092422.pdf
- Cotton_Draw_Unit_655H_Directional_Plan_02_13_25_20250219092407.pdf

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County or Parish/State: LEA / NM

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Unit or CA Number:

US Well Number: 3002549509

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Cotton_Draw_Unit_655H_20250219092352.pdf

Conditions of Approval

Additional

28_25__1_20250307151733.PDF
Cotton_Draw_Unit_655H_Dr_COA_20250307151733.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: FEB 19, 2025 09:32 AM

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: CODY LAYTON

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 03/14/2025

Signature: Cody R. Layton

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No.
2. Name of Operator		6. If Indian, Allottee or Tribe Name
3a. Address	3b. Phone No. (include area code)	7. If Unit of CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		8. Well Name and No.
		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

Additional Information

Additional Remarks

Permitted TVD and MD: 12020 / 22220

Requested TVD and MD: 10016 / 20334

Location of Well

0. SHL: NWNE / 475 FNL / 1890 FEL / TWSP: 25S / RANGE: 32E / SECTION: 28 / LAT: 32.1073739 / LONG: -103.6775978 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 100 FNL / 1890 FEL / TWSP: 25S / RANGE: 32E / SECTION: 28 / LAT: 32.1084045 / LONG: -103.6776002 (TVD: 11910 feet, MD: 12268 feet)

PPP: NWSE / 2561 FSL / 1845 FEL / TWSP: 25S / RANGE: 32E / SECTION: 28 / LAT: 32.1010753 / LONG: -103.67751 (TVD: 11933 feet, MD: 14400 feet)

BHL: SWSE / 20 FSL / 1890 FEL / TWSP: 25S / RANGE: 32E / SECTION: 33 / LAT: 32.0797043 / LONG: -103.6775906 (TVD: 12019 feet, MD: 22221 feet)

CONFIDENTIAL

28-25-32-B Sundry ID 2837578 Van Doo Dah 28-33 Fed Com 625H Lea LC0062300 Devon Energy Production Company LP 13-22c 7-8-2021 LV

Van Doo Dah 28-33 Fed Com 625H

10 3/4		surface 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	Weight
"A"	45.50			j 55	btc	15.41	4.38	0.7	1,020	8	1.17	8.28	46,410
"B"					btc				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500													
Comparison of Proposed to Minimum Required Cement Volumes				Tail Cmt	does not	circ to sfc.	Totals:		1,020	46,410			
Hole	Annular	1 Stage		1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist			
Size	Volume	Cmt Sx		CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg			
14 3/4	0.5563	565		814	567	43	9.00	3065	5M	1.50			
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.													
Site plot (page racks S or E) as per O.G. L.H.D.A. not found.													

8 5/8		casing inside the		10 3/4		Design Factors					Int 1	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00		p 110	uss talon htq	3.80	0.88	1.91	9,419	2	3.60	1.48	301,408
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:								Totals:	9,419			301,408
The cement volume(s) are intended to achieve a top of						0	ft from surface or a		1020			301,408
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE				Min Dist Hole-Cplg
9 7/8	0.1261	285	410	1196	-66	10.50	2479	3M				0.44
D V Tool(s):			6902				sum of sx	Σ CuFt				Σ%excess
t by stage % :		29	27				772	1531				28
Class 'C' tail cmt yld > 1.35												

Tail cmt		casing inside the		8 5/8		Design Factors					Prod 1					
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight					
"A"	20.00		p 110	uss talon htq	3.20	2.37	2.7	20,334	3	5.10	4.48	406,680				
								0				0				
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,204								Totals: 20,334				406,680				
The cement volume(s) are intended to achieve a top of												9219	ft from surface or a	200		overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE				Min Dist Hole-Cplg				
7 7/8	0.1733	1466	2175	1927	13	9.00						0.99				
Class 'C' tail cmt yld > 1.35																

#N/A	0	5 1/2		Design Factors					<Choose Casing>		
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:											
Cmt vol calc below includes this csg, TOC intended				#N/A	ft from surface or a	#N/A					0
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg
0		#N/A	#N/A	0	#N/A						0
#N/A Capitan Reef est top XXXX.											

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company LP ▼
LOCATION:	Section 28, T.25 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico ▼

WELL NAME & NO.:	Cotton Draw Unit 655H
ATS/API ID:	3002549509
APD ID:	10400065135
Sundry ID:	2837578

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Jennings** 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 **1020 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:

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 6902'**.
- 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 487 sxs Class C)**

Operator has proposed to pump down **10-3/4" X 8-5/8"** annulus after primary cementing stage. 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 BH to verify TOC.

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)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

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 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) 3/5/2025

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	X
Blind Rams		X		X
Lower Rams				X
Outside Kill Valve		X	X	X
Inside Kill Valve		X	X	X
Kill Line Check Valve		X	X	X
Inside Choke Valve		X	X	X
HCR		X	X	X
Kill Line	X			X
Annular		X		X
Choke Manifold Valves and Hose	X			X
Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line)	X			X
Standpipe Valve	X			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 from 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

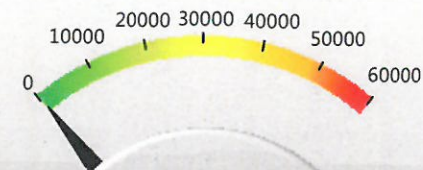
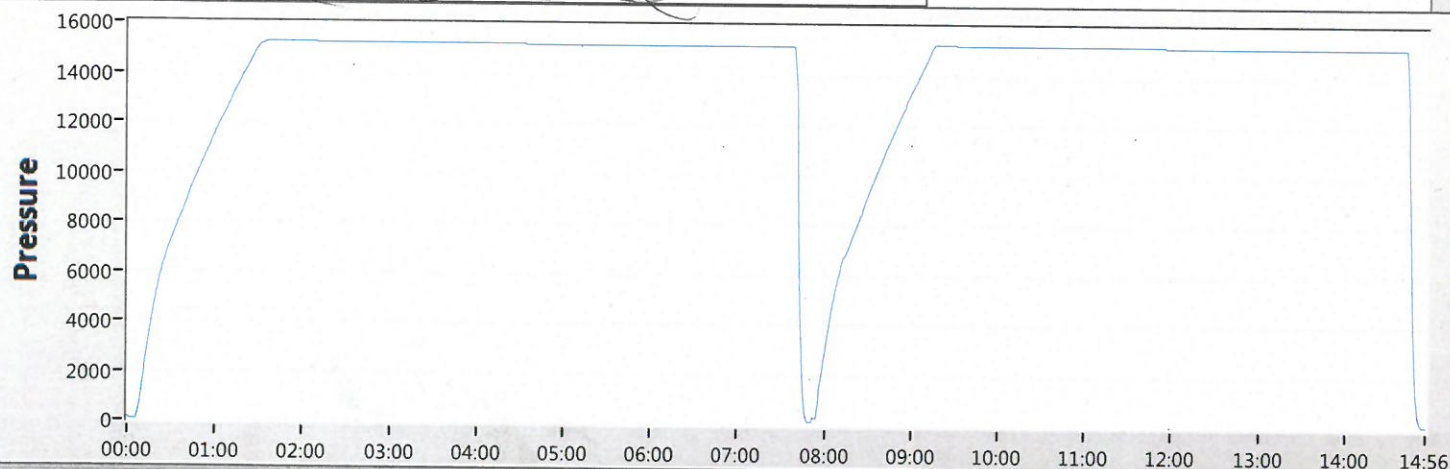
Full Tests required when entering production hole

Cactus
Wellhead

2-9-17
E Bell

80.7 °F

15:49



50

Date 02-09-17

Tested By E.BELL

Transducer bay2

Transducer Serial 181504

Calibration Date 9/6/15

	Job#	Part#	Serial#	Description	Test Pressure
1	TRJ0006341-0007	116966	TRJ6341-7-1	ADPT,DRLG,CW,MBU-3T,13-5/8 10M	15000
2					
3					
4					
5				TRANSDUCER CALIBRATION DUE 03/13/2017	
6					
7					
8					

Start

Stop

Zero

Config

Save

Print

EXIT



U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 HP USS-TALON HTQ™ RD

2/21/2024 7:48:59 AM

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	5.500	5.900	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-TALON HTQ™ RD		--
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	13,150	13,150	psi	--
Minimum Internal Yield Pressure	14,360	14,360	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	729,000	lb	--
Compression Rating	--	729,000	lb	--
Reference Length	--	24,300	ft	[5]
Maximum Uniaxial Bend Rating	--	104.2	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	18,400	ft-lb	[4]
Maximum Make-Up Torque	--	21,400	ft-lb	[4]
Maximum Operating Torque	--	44,400	ft-lb	[4]

UNCONTROLLED

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.

Legal Notice


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U. S. Steel Tubular Products

8.625" 32.00lb/ft (0.352" Wall) P110 HP USS-TALON HTQ™ RD

8/13/2024 10:39:15 AM

				
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]

UNCONTROLLED

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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10-3/4" 45.50# 0.400" J-55

Dimensions (Nominal)

Outside Diameter	10.750	in.
Wall	0.400	in.
Inside Diameter	9.950	in.
Drift	9.875	in.
Weight, T&C	45.500	lbs/ft
Weight, PE	44.260	lbs/ft

Performance Properties

Collapse	2090	psi
Internal Yield Pressure at Minimum Yield		
PE	3580	psi
STC	3580	psi
BTC	3580	psi
Yield Strength, Pipe Body	715	1000 lbs
Joint Strength		
STC	493	1000 lbs
BTC	796	1000 lbs
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.

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July, 2024	
			Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
				<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled		

WELL LOCATION INFORMATION

API Number 30-025-49509	Pool Code 96715	Pool Name WC-025 G-06 S253206M; BONE SPRING WC-025 G-06 S253209L; BONE SPRING
Property Code 300635	Property Name COTTON DRAW UNIT	Well Number 655H
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Ground Level Elevation 3389.4'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	28	25-S	32-E		325' N	1660' E	32.107790	103.676857	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	16	25-S	32-E		20' N	450' E	32.137661	103.672889	LEA

Dedicated Acres 320.00	Infill or Defining Well INFILL	Defining Well API 30-025-45206	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	21	25-S	32-E		50' S	450' E	32.108838	103.672952	LEA

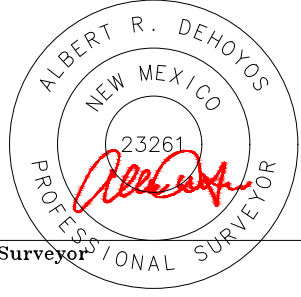
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	21	25-S	32-E		100' S	450' E	32.108975	103.672952	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	16	25-S	32-E		100' N	450' E	32.137441	103.672890	LEA

Spacing Unit Type		Horizontal	Vertical	Ground Floor Elevation:
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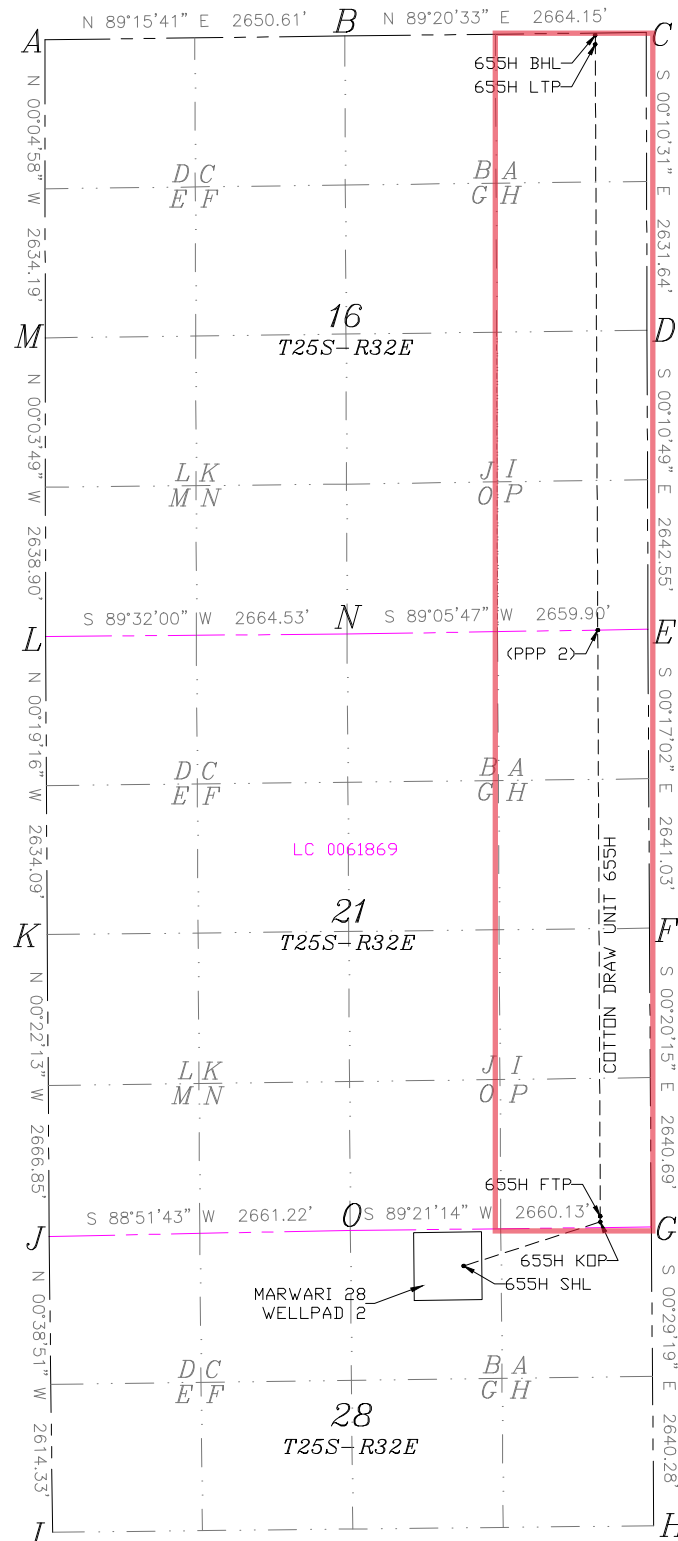
OPERATOR CERTIFICATIONS I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 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. <i>Amy A. Brown</i> 02/18/2025 Signature Date Amy A. Brown Printed Name amy.brown@dvn.com Email Address		SURVEYOR CERTIFICATIONS I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under supervision, and that the same is true and correct to the best of my belief.  Signature and Seal of Professional Surveyor Certificate Number 23261 Date of Survey 12/2024	
--	--	---	--

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.

SURFACE HOLE LOCATION GEODETIC COORDINATES NAD 83 NMSP EAST SURFACE LOCATION 325' FNL 1660' FEL SECTION 28 EL: 3389.4' N:403569.19/E:744600.72 LAT:32.107790/LON:103.676857
KICK OFF POINT 50' FSL 450' FEL SECTION 21 N:403957.83/E:745807.57 LAT:32.108838/LON:103.672952
FIRST TAKE POINT 100' FSL 450' FEL SECTION 21 N:404007.83/E:745807.28 LAT:32.108975/LON:103.672952
LAST TAKE POINT 100' FNL 450' FEL SECTION 16 N:414363.54/E:745763.16 LAT:32.137441/LON:103.672890
BOTTOM HOLE LOCATION 20' FNL 450' FEL SECTION 16 N:414443.54/E:745762.92 LAT:32.137661/LON:103.672889
PPP 2 0' FNL 444' FEL SECTION 21 N:409187.54/E:745785.21 LAT:32.123213/LON:103.672921



A=N:414403.97/E:740898.47
B=N:414438.13/E:743548.86
C=N:414468.70/E:746212.84
D=N:411837.07/E:746220.89
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F=N:406553.54/E:746242.29
G=N:403912.90/E:746257.84
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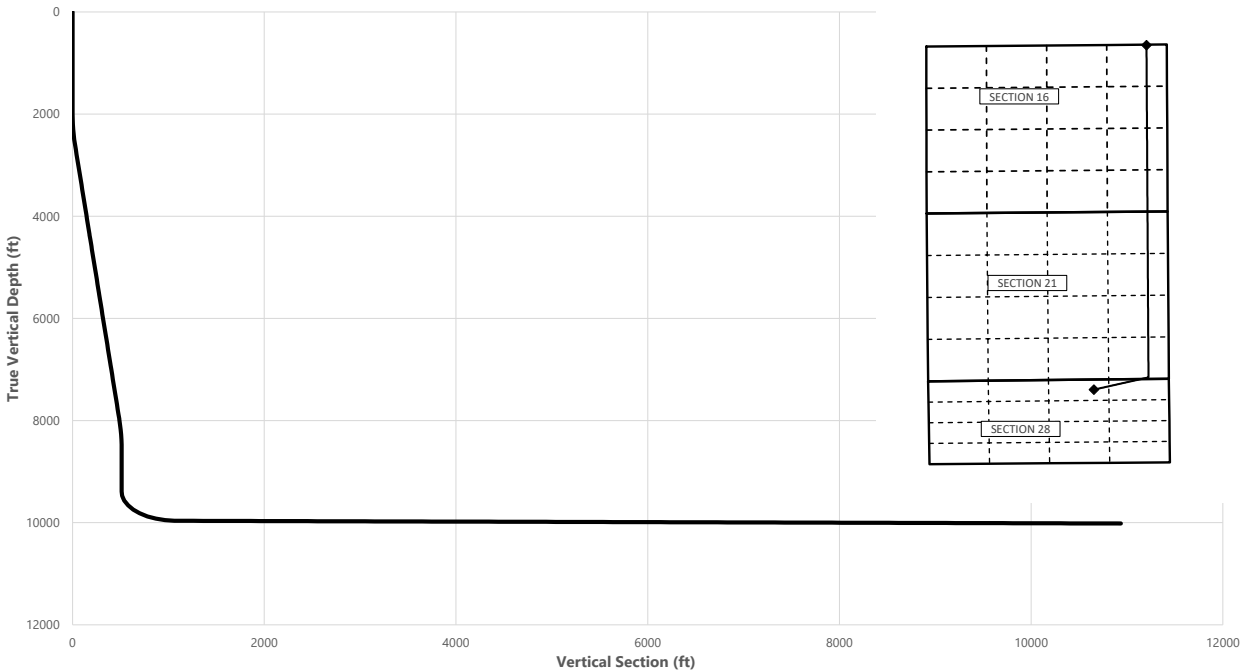
Cotton Draw Unit 655H



Well: Cotton Draw Unit 655H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	72.25	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2600.00	12.00	72.25	2595.62	19.09	59.62	25.31	2.00	Hold Tangent
8088.94	12.00	72.25	7964.62	367.00	1146.51	486.76	0.00	Drop to Vertical
8688.94	0.00	72.25	8560.24	386.09	1206.13	512.08	2.00	Hold Vertical
9518.75	0.00	359.76	9390.05	386.09	1206.13	512.08	0.00	KOP
10415.69	89.69	359.76	9963.00	955.98	1203.75	1078.49	10.00	Landing Point
20334.29	89.69	359.76	10016.00	10874.35	1162.20	10936.28	0.00	BHL



Key Depths	MD	TVD
	(ft)	(ft)
Rustler	759.00	759.00
Salt	1135.00	1135.00
Base of Salt	4407.88	4364.00
Delaware	4638.93	4590.00
Cherry Canyon	5579.49	5510.00
Brushy Canyon	7002.58	6902.00
1st Bone Spring Lime	8608.69	8480.00
Bone Spring 1st	9649.84	9520.00
Bone Spring Lime 2nd / Point of Pen	9994.52	9813.00
exit	20254.29	10015.59

SHL
KOP
Point of Penetration
Exit
BHL

MD	TVD	Lat	Long	Section Footages
(ft)	(ft)	(°)	(°)	
0.00	0.00	32.1077	-103.6769	325' FNL, 1660' FEL of Sec 28 in T25S, R32E
9518.75	9390.05	32.1087	-103.6730	50' FSL, 450' FEL of Sec 21 in T25S, R32E
9994.52	9813.00	32.1090	-103.6730	100' FSL, 450' FEL of Sec 21 in T25S, R32E
20254.29	10015.59	32.0945	-103.6668	100' FNL , 450' FEL of Sec 16 in T25S, R32E
20334.29	10016.00	32.1376	-103.6730	20' FNL, 450' FEL of Sec 16 in T25S, R32E

	Y	X	MD
KOP	403955	745807	9518.75

Cotton Draw Unit 655H



Well: Cotton Draw Unit 655H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	72.25	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	72.25	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	72.25	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	72.25	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	72.25	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	72.25	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	72.25	700.00	0.00	0.00	0.00	0.00	
759.00	0.00	72.25	759.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	72.25	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	72.25	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	72.25	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	72.25	1100.00	0.00	0.00	0.00	0.00	
1135.00	0.00	72.25	1135.00	0.00	0.00	0.00	0.00	Salt
1200.00	0.00	72.25	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	72.25	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	72.25	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	72.25	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	72.25	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	72.25	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	72.25	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	72.25	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	72.25	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	72.25	2099.98	0.53	1.66	0.71	2.00	
2200.00	4.00	72.25	2199.84	2.13	6.65	2.82	2.00	
2300.00	6.00	72.25	2299.45	4.78	14.95	6.35	2.00	
2400.00	8.00	72.25	2398.70	8.50	26.55	11.27	2.00	
2500.00	10.00	72.25	2497.47	13.27	41.45	17.60	2.00	
2600.00	12.00	72.25	2595.62	19.09	59.62	25.31	2.00	Hold Tangent
2700.00	12.00	72.25	2693.44	25.42	79.42	33.72	0.00	
2800.00	12.00	72.25	2791.25	31.76	99.23	42.13	0.00	
2900.00	12.00	72.25	2889.07	38.10	119.03	50.53	0.00	
3000.00	12.00	72.25	2986.88	44.44	138.83	58.94	0.00	
3100.00	12.00	72.25	3084.70	50.78	158.63	67.35	0.00	
3200.00	12.00	72.25	3182.51	57.12	178.43	75.75	0.00	
3300.00	12.00	72.25	3280.33	63.45	198.23	84.16	0.00	
3400.00	12.00	72.25	3378.14	69.79	218.03	92.57	0.00	
3500.00	12.00	72.25	3475.96	76.13	237.83	100.98	0.00	
3600.00	12.00	72.25	3573.77	82.47	257.64	109.38	0.00	
3700.00	12.00	72.25	3671.59	88.81	277.44	117.79	0.00	
3800.00	12.00	72.25	3769.40	95.15	297.24	126.20	0.00	
3900.00	12.00	72.25	3867.22	101.49	317.04	134.60	0.00	
4000.00	12.00	72.25	3965.03	107.82	336.84	143.01	0.00	
4100.00	12.00	72.25	4062.84	114.16	356.64	151.42	0.00	
4200.00	12.00	72.25	4160.66	120.50	376.44	159.82	0.00	
4300.00	12.00	72.25	4258.47	126.84	396.25	168.23	0.00	
4400.00	12.00	72.25	4356.29	133.18	416.05	176.64	0.00	
4407.88	12.00	72.25	4364.00	133.68	417.61	177.30	0.00	Base of Salt
4500.00	12.00	72.25	4454.10	139.52	435.85	185.04	0.00	
4600.00	12.00	72.25	4551.92	145.86	455.65	193.45	0.00	
4638.93	12.00	72.25	4590.00	148.32	463.36	196.72	0.00	Delaware
4700.00	12.00	72.25	4649.73	152.19	475.45	201.86	0.00	
4800.00	12.00	72.25	4747.55	158.53	495.25	210.27	0.00	
4900.00	12.00	72.25	4845.36	164.87	515.05	218.67	0.00	
5000.00	12.00	72.25	4943.18	171.21	534.86	227.08	0.00	
5100.00	12.00	72.25	5040.99	177.55	554.66	235.49	0.00	
5200.00	12.00	72.25	5138.81	183.89	574.46	243.89	0.00	
5300.00	12.00	72.25	5236.62	190.22	594.26	252.30	0.00	
5400.00	12.00	72.25	5334.44	196.56	614.06	260.71	0.00	
5500.00	12.00	72.25	5432.25	202.90	633.86	269.11	0.00	
5579.49	12.00	72.25	5510.00	207.94	649.60	275.80	0.00	Cherry Canyon
5600.00	12.00	72.25	5530.07	209.24	653.66	277.52	0.00	
5700.00	12.00	72.25	5627.88	215.58	673.47	285.93	0.00	
5800.00	12.00	72.25	5725.70	221.92	693.27	294.34	0.00	
5900.00	12.00	72.25	5823.51	228.26	713.07	302.74	0.00	
6000.00	12.00	72.25	5921.33	234.59	732.87	311.15	0.00	
6100.00	12.00	72.25	6019.14	240.93	752.67	319.56	0.00	
6200.00	12.00	72.25	6116.95	247.27	772.47	327.96	0.00	
6300.00	12.00	72.25	6214.77	253.61	792.27	336.37	0.00	
6400.00	12.00	72.25	6312.58	259.95	812.08	344.78	0.00	

Cotton Draw Unit 655H



Well: Cotton Draw Unit 655H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
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Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6500.00	12.00	72.25	6410.40	266.29	831.88	353.18	0.00	
6600.00	12.00	72.25	6508.21	272.63	851.68	361.59	0.00	
6700.00	12.00	72.25	6606.03	278.96	871.48	370.00	0.00	
6800.00	12.00	72.25	6703.84	285.30	891.28	378.40	0.00	
6900.00	12.00	72.25	6801.66	291.64	911.08	386.81	0.00	
7000.00	12.00	72.25	6899.47	297.98	930.88	395.22	0.00	
7002.58	12.00	72.25	6902.00	298.14	931.40	395.44	0.00	Brushy Canyon
7100.00	12.00	72.25	6997.29	304.32	950.69	403.63	0.00	
7200.00	12.00	72.25	7095.10	310.66	970.49	412.03	0.00	
7300.00	12.00	72.25	7192.92	316.99	990.29	420.44	0.00	
7400.00	12.00	72.25	7290.73	323.33	1010.09	428.85	0.00	
7500.00	12.00	72.25	7388.55	329.67	1029.89	437.25	0.00	
7600.00	12.00	72.25	7486.36	336.01	1049.69	445.66	0.00	
7700.00	12.00	72.25	7584.18	342.35	1069.49	454.07	0.00	
7800.00	12.00	72.25	7681.99	348.69	1089.30	462.47	0.00	
7900.00	12.00	72.25	7779.81	355.03	1109.10	470.88	0.00	
8000.00	12.00	72.25	7877.62	361.36	1128.90	479.29	0.00	
8088.94	12.00	72.25	7964.62	367.00	1146.51	486.76	0.00	Drop to Vertical
8100.00	11.78	72.25	7975.44	367.70	1148.68	487.69	2.00	
8200.00	9.78	72.25	8073.67	373.40	1166.49	495.25	2.00	
8300.00	7.78	72.25	8172.49	378.05	1181.03	501.42	2.00	
8400.00	5.78	72.25	8271.79	381.65	1192.27	506.19	2.00	
8500.00	3.78	72.25	8371.44	384.19	1200.20	509.56	2.00	
8600.00	1.78	72.25	8471.31	385.67	1204.82	511.52	2.00	
8608.69	1.61	72.25	8480.00	385.74	1205.06	511.62	2.00	1st Bone Spring Lime
8688.94	0.00	72.25	8560.24	386.09	1206.13	512.08	2.00	Hold Vertical
8700.00	0.00	359.76	8571.30	386.09	1206.13	512.08	0.00	
8800.00	0.00	359.76	8671.30	386.09	1206.13	512.08	0.00	
8900.00	0.00	359.76	8771.30	386.09	1206.13	512.08	0.00	
9000.00	0.00	359.76	8871.30	386.09	1206.13	512.08	0.00	
9100.00	0.00	359.76	8971.30	386.09	1206.13	512.08	0.00	
9200.00	0.00	359.76	9071.30	386.09	1206.13	512.08	0.00	
9300.00	0.00	359.76	9171.30	386.09	1206.13	512.08	0.00	
9400.00	0.00	359.76	9271.30	386.09	1206.13	512.08	0.00	
9500.00	0.00	359.76	9371.30	386.09	1206.13	512.08	0.00	
9518.75	0.00	359.76	9390.05	386.09	1206.13	512.08	0.00	KOP
9600.00	8.12	359.76	9471.03	391.84	1206.11	517.79	10.00	
9649.84	13.11	359.76	9520.00	401.02	1206.07	526.92	10.00	Bone Spring 1st
9700.00	18.12	359.76	9568.29	414.52	1206.01	540.33	10.00	
9800.00	28.12	359.76	9660.14	453.74	1205.85	579.32	10.00	
9900.00	38.12	359.76	9743.78	508.32	1205.62	633.56	10.00	
9994.52	47.58	359.76	9813.00	572.53	1205.35	697.38	10.00	Bone Spring Lime 2nd / Point of Penetration
10000.00	48.12	359.76	9816.68	576.59	1205.33	701.42	10.00	
10100.00	58.12	359.76	9876.61	656.48	1205.00	780.82	10.00	
10200.00	68.12	359.76	9921.75	745.57	1204.63	869.36	10.00	
10300.00	78.12	359.76	9950.75	841.14	1204.22	964.35	10.00	
10400.00	88.12	359.76	9962.70	940.29	1203.81	1062.90	10.00	
10415.69	89.69	359.76	9963.00	955.98	1203.75	1078.49	10.00	Landing Point
10500.00	89.69	359.76	9963.45	1040.29	1203.39	1162.28	0.00	
10600.00	89.69	359.76	9963.99	1140.28	1202.97	1261.67	0.00	
10700.00	89.69	359.76	9964.52	1240.28	1202.55	1361.06	0.00	
10800.00	89.69	359.76	9965.05	1340.28	1202.13	1460.44	0.00	
10900.00	89.69	359.76	9965.59	1440.28	1201.71	1559.83	0.00	
11000.00	89.69	359.76	9966.12	1540.28	1201.30	1659.22	0.00	
11100.00	89.69	359.76	9966.66	1640.27	1200.88	1758.60	0.00	
11200.00	89.69	359.76	9967.19	1740.27	1200.46	1857.99	0.00	
11300.00	89.69	359.76	9967.73	1840.27	1200.04	1957.38	0.00	
11400.00	89.69	359.76	9968.26	1940.27	1199.62	2056.76	0.00	
11500.00	89.69	359.76	9968.80	2040.26	1199.20	2156.15	0.00	
11600.00	89.69	359.76	9969.33	2140.26	1198.78	2255.54	0.00	
11700.00	89.69	359.76	9969.86	2240.26	1198.36	2354.92	0.00	
11800.00	89.69	359.76	9970.40	2340.26	1197.94	2454.31	0.00	
11900.00	89.69	359.76	9970.93	2440.25	1197.52	2553.70	0.00	
12000.00	89.69	359.76	9971.47	2540.25	1197.10	2653.08	0.00	
12100.00	89.69	359.76	9972.00	2640.25	1196.68	2752.47	0.00	
12200.00	89.69	359.76	9972.54	2740.25	1196.26	2851.86	0.00	
12300.00	89.69	359.76	9973.07	2840.25	1195.84	2951.25	0.00	
12400.00	89.69	359.76	9973.61	2940.24	1195.42	3050.63	0.00	
12500.00	89.69	359.76	9974.14	3040.24	1195.00	3150.02	0.00	
12600.00	89.69	359.76	9974.67	3140.24	1194.59	3249.41	0.00	

Cotton Draw Unit 655H



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Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12700.00	89.69	359.76	9975.21	3240.24	1194.17	3348.79	0.00	
12800.00	89.69	359.76	9975.74	3340.23	1193.75	3448.18	0.00	
12900.00	89.69	359.76	9976.28	3440.23	1193.33	3547.57	0.00	
13000.00	89.69	359.76	9976.81	3540.23	1192.91	3646.95	0.00	
13100.00	89.69	359.76	9977.35	3640.23	1192.49	3746.34	0.00	
13200.00	89.69	359.76	9977.88	3740.22	1192.07	3845.73	0.00	
13300.00	89.69	359.76	9978.42	3840.22	1191.65	3945.11	0.00	
13400.00	89.69	359.76	9978.95	3940.22	1191.23	4044.50	0.00	
13500.00	89.69	359.76	9979.49	4040.22	1190.81	4143.89	0.00	
13600.00	89.69	359.76	9980.02	4140.22	1190.39	4243.27	0.00	
13700.00	89.69	359.76	9980.55	4240.21	1189.97	4342.66	0.00	
13800.00	89.69	359.76	9981.09	4340.21	1189.55	4442.05	0.00	
13900.00	89.69	359.76	9981.62	4440.21	1189.13	4541.44	0.00	
14000.00	89.69	359.76	9982.16	4540.21	1188.71	4640.82	0.00	
14100.00	89.69	359.76	9982.69	4640.20	1188.29	4740.21	0.00	
14200.00	89.69	359.76	9983.23	4740.20	1187.87	4839.60	0.00	
14300.00	89.69	359.76	9983.76	4840.20	1187.46	4938.98	0.00	
14400.00	89.69	359.76	9984.30	4940.20	1187.04	5038.37	0.00	
14500.00	89.69	359.76	9984.83	5040.19	1186.62	5137.76	0.00	
14600.00	89.69	359.76	9985.36	5140.19	1186.20	5237.14	0.00	
14700.00	89.69	359.76	9985.90	5240.19	1185.78	5336.53	0.00	
14800.00	89.69	359.76	9986.43	5340.19	1185.36	5435.92	0.00	
14900.00	89.69	359.76	9986.97	5440.19	1184.94	5535.30	0.00	
15000.00	89.69	359.76	9987.50	5540.18	1184.52	5634.69	0.00	
15100.00	89.69	359.76	9988.04	5640.18	1184.10	5734.08	0.00	
15200.00	89.69	359.76	9988.57	5740.18	1183.68	5833.46	0.00	
15300.00	89.69	359.76	9989.11	5840.18	1183.26	5932.85	0.00	
15400.00	89.69	359.76	9989.64	5940.17	1182.84	6032.24	0.00	
15500.00	89.69	359.76	9990.17	6040.17	1182.42	6131.62	0.00	
15600.00	89.69	359.76	9990.71	6140.17	1182.00	6231.01	0.00	
15700.00	89.69	359.76	9991.24	6240.17	1181.58	6330.40	0.00	
15800.00	89.69	359.76	9991.78	6340.16	1181.16	6429.79	0.00	
15900.00	89.69	359.76	9992.31	6440.16	1180.74	6529.17	0.00	
16000.00	89.69	359.76	9992.85	6540.16	1180.33	6628.56	0.00	
16100.00	89.69	359.76	9993.38	6640.16	1179.91	6727.95	0.00	
16200.00	89.69	359.76	9993.92	6740.16	1179.49	6827.33	0.00	
16300.00	89.69	359.76	9994.45	6840.15	1179.07	6926.72	0.00	
16400.00	89.69	359.76	9994.99	6940.15	1178.65	7026.11	0.00	
16500.00	89.69	359.76	9995.52	7040.15	1178.23	7125.49	0.00	
16600.00	89.69	359.76	9996.05	7140.15	1177.81	7224.88	0.00	
16700.00	89.69	359.76	9996.59	7240.14	1177.39	7324.27	0.00	
16800.00	89.69	359.76	9997.12	7340.14	1176.97	7423.65	0.00	
16900.00	89.69	359.76	9997.66	7440.14	1176.55	7523.04	0.00	
17000.00	89.69	359.76	9998.19	7540.14	1176.13	7622.43	0.00	
17100.00	89.69	359.76	9998.73	7640.13	1175.71	7721.81	0.00	
17200.00	89.69	359.76	9999.26	7740.13	1175.29	7821.20	0.00	
17300.00	89.69	359.76	9999.80	7840.13	1174.87	7920.59	0.00	
17400.00	89.69	359.76	10000.33	7940.13	1174.45	8019.97	0.00	
17500.00	89.69	359.76	10000.86	8040.13	1174.03	8119.36	0.00	
17600.00	89.69	359.76	10001.40	8140.12	1173.62	8218.75	0.00	
17700.00	89.69	359.76	10001.93	8240.12	1173.20	8318.14	0.00	
17800.00	89.69	359.76	10002.47	8340.12	1172.78	8417.52	0.00	
17900.00	89.69	359.76	10003.00	8440.12	1172.36	8516.91	0.00	
18000.00	89.69	359.76	10003.54	8540.11	1171.94	8616.30	0.00	
18100.00	89.69	359.76	10004.07	8640.11	1171.52	8715.68	0.00	
18200.00	89.69	359.76	10004.61	8740.11	1171.10	8815.07	0.00	
18300.00	89.69	359.76	10005.14	8840.11	1170.68	8914.46	0.00	
18400.00	89.69	359.76	10005.67	8940.10	1170.26	9013.84	0.00	
18500.00	89.69	359.76	10006.21	9040.10	1169.84	9113.23	0.00	
18600.00	89.69	359.76	10006.74	9140.10	1169.42	9212.62	0.00	
18700.00	89.69	359.76	10007.28	9240.10	1169.00	9312.00	0.00	
18800.00	89.69	359.76	10007.81	9340.10	1168.58	9411.39	0.00	
18900.00	89.69	359.76	10008.35	9440.09	1168.16	9510.78	0.00	
19000.00	89.69	359.76	10008.88	9540.09	1167.74	9610.16	0.00	
19100.00	89.69	359.76	10009.42	9640.09	1167.32	9709.55	0.00	
19200.00	89.69	359.76	10009.95	9740.09	1166.90	9808.94	0.00	
19300.00	89.69	359.76	10010.49	9840.08	1166.49	9908.33	0.00	
19400.00	89.69	359.76	10011.02	9940.08	1166.07	10007.71	0.00	
19500.00	89.69	359.76	10011.55	10040.08	1165.65	10107.10	0.00	
19600.00	89.69	359.76	10012.09	10140.08	1165.23	10206.49	0.00	

Cotton Draw Unit 655H



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Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
19700.00	89.69	359.76	10012.62	10240.07	1164.81	10305.87	0.00	
19800.00	89.69	359.76	10013.16	10340.07	1164.39	10405.26	0.00	
19900.00	89.69	359.76	10013.69	10440.07	1163.97	10504.65	0.00	
20000.00	89.69	359.76	10014.23	10540.07	1163.55	10604.03	0.00	
20100.00	89.69	359.76	10014.76	10640.07	1163.13	10703.42	0.00	
20200.00	89.69	359.76	10015.30	10740.06	1162.71	10802.81	0.00	
20254.29	89.69	359.76	10015.59	10794.35	1162.48	10856.76	0.00	exit
20300.00	89.69	359.76	10015.83	10840.06	1162.29	10902.19	0.00	
20334.29	89.69	359.76	10016.00	10874.35	1162.20	10936.28	0.00	BHL

Cotton Draw Unit 655H

1. Geologic Formations

TVD of target	10016	Pilot hole depth	N/A
MD at TD:	20334	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	759		
Salt	1135		
Base of Salt	4364		
Delaware	4590		
Cherry Canyon	5510		
Brushy Canyon	6902		
1st Bone Spring Lime	8480		
Bone Spring 1st	9520		
Bone Spring Lime 2nd	9813		

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

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2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
14 3/4	10 3/4	45 1/2	J-55	BTC	0	934	0	934
9 7/8	8 5/8	32	P110HP	Talon	0	9419	0	9419
7 7/8	5 1/2	20	P110HP	Talon	0	20334	0	10016

•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	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	565	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	487	Surf	13.0	2.3	2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives
	285	7002	13.2	1.44	Tail: Class H / C + additives
Production	35	8919	9	3.27	Lead: Class H / C + additives
	1431	9519	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%

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4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:	
Int 1		13-5/8"	5M	Annular		X	50% of rated working pressure
				Blind Ram		X	5M
				Pipe Ram			
				Double Ram		X	
				Other*			
Production		13-5/8"	5M	Annular (5M)		X	50% of rated working pressure
				Blind Ram		X	5M
				Pipe Ram			
				Double Ram		X	
				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 run a 5 M annular on a 10M system						

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5. Mud Program (Three String Design)

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

Additional 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	Specify what type and where?
BH pressure at deepest TVD	4687
Abnormal temperature	No

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

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

N	H ₂ S is present
Y	H ₂ S plan attached.

Cotton Draw Unit 655H

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 regulatio
- 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 nipped 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

Sante Fe Main Office
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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 445514

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 445514
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	4/25/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	4/25/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	4/25/2025
matthew.gomez	Property code is now 300635 if production exists, C-115 monthly production reports must be amended from effective date of this approval onward.	4/25/2025
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	4/25/2025