Cerved by UCD: 12/18/2024 9:03:15 AM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Repor
Well Name: TAMBORA 36 35 FED COM	Well Location: T20S / R29E / SEC 36 / SESE / 32.5259892 / -104.0222596	County or Parish/State: EDDY / NM
Well Number: 332H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110351	Unit or CA Name:	Unit or CA Number:
<b>US Well Number:</b> 3001555559	<b>Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP	

### **Notice of Intent**

Sundry ID: 2827005

Type of Submission: Notice of Intent

Date Sundry Submitted: 12/11/2024

Date proposed operation will begin: 12/11/2024

Type of Action: APD Change Time Sundry Submitted: 05:07

**Procedure Description:** Attention Long Vo Devon Energy Production Co., L.P. (Devon) respectfully request to skid over from the original permitted SHL location of 1232 FSL, 690 FEL, SEC 36-20S-29E and re-drill the approved subject wellbore in a different SHL due to conductor and drilling design change. The new SHL will be 1247 FSL, 690 FEL, SEC 36-20S-29E. The new well name will be TAMBORA 36 35 FED COM 332H and have a separate API. We request the original well associated with API 30-015-55559 to have a well name change to TAMBORA 36 35 FED COM 332Y. Please see the attached new plat, drill plan, and directional.

**NOI Attachments** 

### **Procedure Description**

WA022025530\_TAMBORA\_36\_35\_FED\_COM\_332H\_WL\_R3\_SIGNED\_20241211152535.pdf

TAMBORA\_36\_35\_FED\_COM\_332H\_\_20241211152533.pdf

5.5\_23lb\_P110\_HP\_CDC\_HTQ\_20241211152532.pdf

13.375\_54.5lb\_J55\_20241211135542.pdf

Wellhead\_Diverter\_Drawing\_20241211135542.pdf

8.625\_32lb\_P110EC\_SPRINT\_FJ\_VST\_20241211135542.pdf

10.75\_45.5lb\_J55\_BTC\_20241211135541.pdf

TAMBORA\_36\_35\_FED\_COM\_332H\_Directional\_Plan\_12\_11\_24\_20241211131954.pdf

Received by OCD: 12/18/2024 9:03:15 AM Well Name: TAMBORA 36 35 FED COM	Well Location: T20S / R29E / SEC 36 / SESE / 32.5259892 / -104.0222596	County or Parish/State: EDBY 7 of 6 NM
Well Number: 332H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110351	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001555559	<b>Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP	

### **Conditions of Approval**

### **Specialist Review**

Tambora\_36\_35\_Fed\_Com\_332H\_Sundry\_ID\_2827005\_20241216093924.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: CHELSEY GREEN** Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Compliance Professional

Street Address: 333 WEST SHERIDAN AVENUE

**City: OKLAHOMA CITY** State: OK

Phone: (405) 228-8595

Email address: CHELSEY.GREEN@DVN.COM

**Field** 

**Representative Name:** Street Address: City: Phone: Email address:

## **BLM Point of Contact**

BLM POC Name: LONG VO BLM POC Phone: 5759885402 **Disposition:** Approved Signature: Long Vo

BLM POC Title: Petroleum Engineer BLM POC Email Address: LVO@BLM.GOV Disposition Date: 12/16/2024

State:

Signed on: DEC 12, 2024 08:03 AM

Zip:

### Received by OCD: 12/18/2024 9:03:15 AM

eceived by OCD. 12/10/2024	7.03.13 AM	Tuge 5 0j
	UNITED STATES PARTMENT OF THE INTERIOR REAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021 5. Lease Serial No.
SUNDRY Do not use this	NOTICES AND REPORTS ON WELLS form for proposals to drill or to re-enter Use Form 3160-3 (APD) for such propos	
SUBMIT IN	TRIPLICATE - Other instructions on page 2	7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well     Oil Well     Gas		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area	<i>code)</i> 10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,	R.,M., or Survey Description)	11. Country or Parish, State
12. CHI	ECK THE APPROPRIATE BOX(ES) TO INDICATE NAT	TURE OF NOTICE, REPORT OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION
Notice of Intent	Acidize Deepen Alter Casing Hydraulic Fracturi	Production (Start/Resume)     Water Shut-Off     Reclamation     Well Integrity
Subsequent Report	Casing Repair New Construction Change Plans Plug and Abandon	
Final Abandonment Notice	Convert to Injection Plug Back	Water Disposal
the proposal is to deepen direction the Bond under which the work w completion of the involved operat	ally or recomplete horizontally, give subsurface locations a ill be perfonned or provide the Bond No. on file with BLM ions. If the operation results in a multiple completion or red	mated starting date of any proposed work and approximate duration thereof. If and measured and true vertical depths of all pertinent markers and zones. Attach //BIA. Required subsequent reports must be filed within 30 days following completion in a new interval, a Form 3160-4 must be filed once testing has been eclamation, have been completed and the operator has detennined that the site

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)			
	Title		
Signature	Date		
THE SPACE FOR FEDE	RAL OR STATE C	OFICE 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 leas 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		willfully to make to any department or agency of the United Stat	tes

(Instructions on page 2)

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

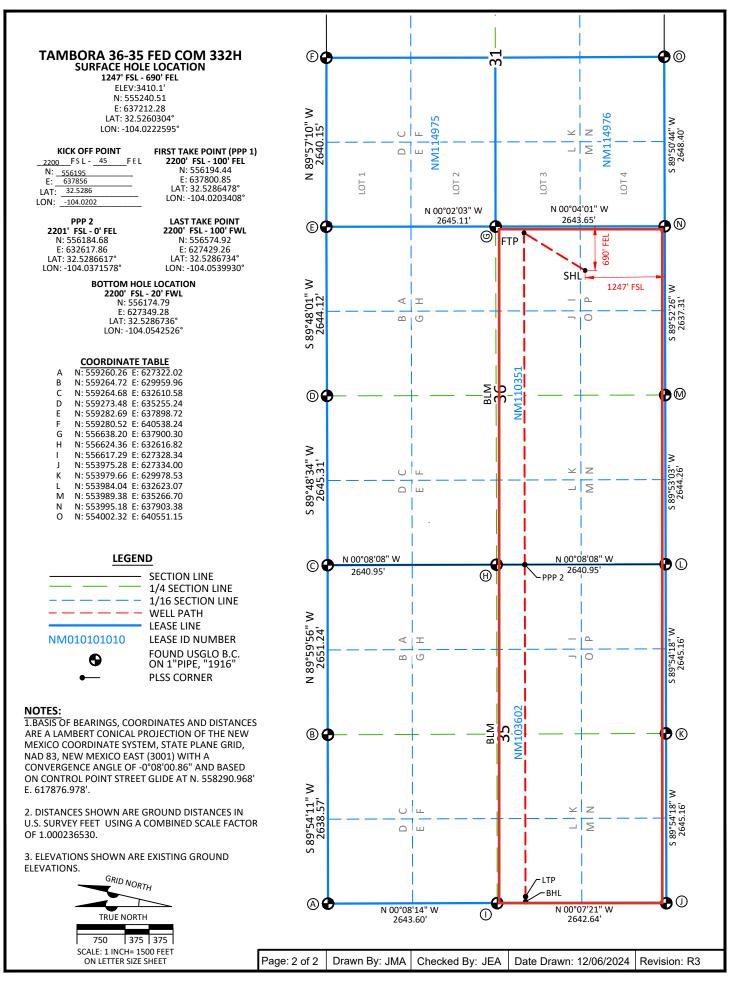
## **Additional Information**

### Location of Well

0. SHL: SESE / 1232 FSL / 690 FEL / TWSP: 20S / RANGE: 29E / SECTION: 36 / LAT: 32.5259892 / LONG: -104.0222596 (TVD: 0 feet, MD: 0 feet ) PPP: NESE / 2201 FSL / 187 FEL / TWSP: 20S / RANGE: 29E / SECTION: 35 / LAT: 32.5286626 / LONG: -104.0377645 (TVD: 10900 feet, MD: 16200 feet ) PPP: NESE / 2200 FSL / 632 FEL / TWSP: 20S / RANGE: 29E / SECTION: 36 / LAT: 32.5286504 / LONG: -104.0220668 (TVD: 10900 feet, MD: 11361 feet ) BHL: NWSW / 2200 FSL / 20 FWL / TWSP: 20S / RANGE: 29E / SECTION: 35 / LAT: 32.5286736 / LONG: -104.0542526 (TVD: 10900 feet, MD: 21281 feet ) Received by OCD: 12/18/2024 9:03:15 AM

<u>C-10</u>	2			ç	State of N	ew Mexic	0		Revi	sed July 9, 2024
	_		Energy,	Mine	als & Natur	al Resource	es Department		🗴 Initial Su	ubmittal
	Electronica D Permittine				<b>ONSERVA</b>			Submittal Type:	🗆 Amende	d Report
		5						турс.	As Drilled	
					WELL LOCA		ATION			
API Nu	<sup>mber</sup> 30-015-	55882	Pool Code	98	3857	Pool Name W	C 20S29E28; WOI	FCAMP		
Propert	y Code 33	6433	Property Na	ame 1	AMBORA 36	-35 FED COM	N		Well Numb 332H	per
OGRID	<sup>No.</sup> 6137		Operator N	DEVON ENERGY PRODUCTION COMPANY, L.P. Ground Level Elevation 3410.1						vel Elevation
Surface	e Owner: 🗆	State 🗆 Fee	🗆 Tribal <b>X</b>	Federal		Mineral	Owner: 🗌 State 🗌 Fee	e 🗆 Tribal 🛛		
					Su	Irface Location				
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	Э	County
Р	36	20-S	29-E		1247/S	690/E	32.5260304°	-104.0	222595°	EDDY
						om Hole Locati	on			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude		County
L	35	20-S	29-Е		2200/S	20/W	32.5286736°	-104.0	542526°	EDDY
Dedicat	ted Acres	Infill or Defin	ing Well	Definin	ig Well API	Overlanni	ng Spacing Unit (Y/N)	Consolida	ation Code	
640		INFILL			1555562	Ovenappi		Conconde		
Order N	lumbers.					Well setb	acks are under Commo	on Ownersh	ip: □Yes □I	No
					Kick	Off Point (KOP	2)			
UL	Section	Township	Range	Lot	Ft. from N/S		Latitude	Longitude	Э	County
Ι	36	20S	29E		2200 S	45 E	32.5286	-104.0202		EDDY
	I					Take Point (FT				_
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude		County
- 1	36	20-S	29-E		2200/S	100/E	32.5286478°	-104.0	203408°	EDDY
UL	Section	Township	Range	Lot	Last Ft. from N/S	Take Point (LT Ft. from E/W	P)	Longitude	<u>a</u>	County
L	35	20-S	29-E		2200/S	100/W	32.5286734°	-	539930°	EDDY
-		20.5	252		2200/5	100,11	52.5200751	101.0		
Unitized	d Area: 🗆	Area of Unif	orm Interest:		Spacing Unit	: Type: 🛛 Horiz	zontal 🗌 Vertical	Ground	Floor Elevatio	on:
ODERA						<b>FFC</b> .				
	TOR CERTI		contained bo	rain is	SURVEYOR NOT		L horoby cor	tify that the		hown on this plat
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				nd ell, est or e fill	<ol> <li>BEARINGS SHOWN ARE GRID BASED ON THE NEW MEXICO STATE PLANE EAST ZONE COORDINATE SYSTEM (3001), NAD 83 (2011), BASED FROM GPS OBSERVATIONS, OCCUPYING A WHS CONTROL POINT (5/8" REBAR), LOCATED</li> <li>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</li> </ol>					
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.				he	ORTHO:3310.85 OPUS SOLUTION		ГН, S	IOH	N E. ALLE	n Maa
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 interest will be loasted as obtained a correvulation.				one r	US SURVEY FEET SCALE FACTOR O 3. ELEVATIONS SHO EXISTING GROU		E E	PRO S	20250	B.
interval will be located or obtained a compulsory pooling order from the division. <u> <u> <u> </u> <u> </u></u></u>					<ul> <li>3. ELEVATION SHOWN OR LISTED ARE EXISTING GROUND ELEVATIONS UNLESS NOTED.</li> <li>4. KARST AREAS, POTASH BUFFERS, LEASE AREAS AND DRILL ISLANDS, IF SHOWN, WERE PROVIDED BY DEVON ENERGY AND NOT LOCATED ON THE GROUND AS</li> <li>5. Signature and Seal of Professional Surveyor</li> </ul>					
	CHE	LSEY GREEN				SURVEY, LOCATION	IS			-
Printed		LSEY.GREEN@D					20250 Certificate N	<u>John E.</u> o. Name	Allen	12/06/2024 Date of Survey
E-mail A				<b> </b> _	Page: 1 of 2 D	rawn Bv: JMA	Checked By: JEA D		12/06/2024	Revision: R3

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division. Released to Imaging: 12/18/2024 3:09:58 PM



### 1. Geologic Formations

TVD of target	10900	Pilot hole depth	N/A
MD at TD:	21295	Deepest expected fresh water	

Basin

Dasin			
	Depth	Water/Mineral	
Formation	(TVD)	<b>Bearing/Target</b>	Hazards*
	from KB	Zone?	
Rustler	180		
Salt	444		
Base of Salt	1616		
Capitan Reef Top	1951		
Delaware	3942		
Cherry Canyon	3964		
Brushy Canyon	4882		
1st Bone Spring Lime	6509		
Bone Spring 1st	7621		
Bone Spring 2nd	8355		
3rd Bone Spring Lime	8663		
Bone Spring 3rd	9403		
Wolfcamp	9830		

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

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
26	20	94.0	K-55	BTC	0.0	250 MD	0	250 TVD
17 1/2	13 3/8	54.5	J-55	BTC	0.0	1850 MD	0	1850 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	4000	0	4000
9 7/8	5 1/2	23.0	P110HP	CDC HTQ	0	21295 MD	0	10900 TVD

#### 2. Casing Program (Primary Design)

•9.875" hole down to KOP, then 8.75" to bottom of curve, then 8.5" to Total Depth

• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

#### 3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	479	Surf	13.2	1.44	Lead: Class C Cement + additives
Int	2285	0	13.2	1.44	Tail: Class H / C + additives
Int 2	142	Surf	9	3.27	Lead: Class C Cement + additives
Int 2	364	1951	13.2	1.44	Tail: Class H / C + additives
Production	1302	0	9	3.27	Lead: Class H /C + additives
Production	3681	8160	13.2	1.44	Tail: Class H / C + additives

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate 2 casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef 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 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	30%
Intermediate 2 (Two Stage)	25%
Prod	10%

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
26	20	94.0	K-55	BTC	0.0	250 MD	0	250 TVD
17 1/2	13 3/8	54.5	J-55	BTC	0.0	1850 MD	0	1850 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	4000	0	4000
9 7/8	8 5/8	32.0	P110EC	Sprint FJ	0	10160	0	10160
7 7/8	5 1/2	23.0	P110HP	CDC HTQ	0	21295 MD	0	10900 TVD

#### 2. Casing Program (Alternative Design)

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	479	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	2285	0	13.2	1.44	Tail: Class H / C + additives
Let 2	142	Surf	9	3.27	Lead: Class C Cement + additives
Int 2	364	1951	13.2	1.44	Tail: Class H / C + additives
Int 3	364	2000	13	3.27	Lead: Class H /C + additives
int 5	401	6000	13.8	1.44	Tail: Class H / C + additives
Production	476	0	9	3.27	Lead: Class H /C + additives
Froduction	1738	8160	13.8	1.44	Tail: Class H / C + additives

3. Cementing Program (Alternative Design)

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate 2 casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef to surface. The final cement top will be verified by Echo-meter. Devon will include theEcho-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 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	30%
Intermediate 2 (Two Stage)	25%
Prod	10%

BOP installed and tested before drilling which hole?	Size?	Min. Require d WP	Туре		~	Tested to:														
				Anı	nular	Х	50% of rated working pressure													
Int	13-5/8"	5M	Bline	d Ram	Х															
Int	13-5/8	JIVI	Pipe	Ram		5M														
			Doub	le Ram	Х	JIVI														
			Other*																	
	13-5/8"							Annul	ar (5M)	X	100% of rated working pressure									
Int 1		514	Blind Ram		Х															
Int I		15-5/8 51	13-5/8	13-5/8 5IVI	13-5/8	3" 5M	13-3/8 3IM	15-5/8 5141	Pipe	JIVI	JIVI	JIVI	JIVI	JIVI	JIVI	5101	Pipe	Ram		5M
										le Ram	Х	5101								
			Other*			1														
	13-5/8" 5M	12 5/0"		Annul	ar (5M)	r (5M) X	100% of rated working pressure													
Production			12 5/0"	12 5/0"	12 5/0" 5M	12 5/0" 5M	Blind Ra		d Ram	Х										
riodetion		15-5/6 51vi	13-5/8 5IVI	13-5/6 5IVI		Pipe Ram		5M												
			Doub	le Ram	Х	JIVI														
			Other*																	
N A variance is requested for	r the use of a	diverter or	the surface	casing. See	attached for s	schematic.														
N A variance is requested to	run a 5 M an	nular on a	10M system																	

### 4. Pressure Control Equipment (Four String Design)

Diverter will be utilized on the 26in Surface hole. BOP will be rigged up on the first intermediate

#### 5. Mud Program (Four String Design)

Section	Туре	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	OBM	10-10.5

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

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

### 6. Logging and Testing Procedures

Logging,	Coring 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 Report and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additiona	l 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	5951
Abnormal temperature	No

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

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations<br/>greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is<br/>encountered measured values and formations will be provided to the BLM.NH2S 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 (OnShore Order 2, all COAs and NMOCD regulations).

 $^{3}$  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 14 of 65

# U. S. Steel Tubular Products 5.500" 23.00lb/ft (0.415" Wall) P110 HP USS-CDC HTQ<sup>®</sup>

MECHANICAL PROPERTIES	Pipe	USS-CDC HTQ <sup>®</sup>		
Minimum Yield Strength	125,000		psi	
Maximum Yield Strength	140,000		psi	
Minimum Tensile Strength	130,000		psi	
DIMENSIONS	Pipe	USS-CDC HTQ <sup>®</sup>		
Outside Diameter	5.500	6.300	in.	
Wall Thickness	0.415		in.	
Inside Diameter	4.670	4.670	in.	
Standard Drift	4.545	4.545	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	23.00		lb/ft	
Plain End Weight	22.56		lb/ft	
SECTION AREA	Pipe	USS-CDC HTQ <sup>®</sup>		
Critical Area	6.630	6.630	sq. in.	
Joint Efficiency		97.0	%	
PERFORMANCE	Pipe	USS-CDC $HTQ^{\mathbb{R}}$		
Minimum Collapse Pressure	16,470	16,470	psi	
External Pressure Leak Resistance		13,180	psi	
Minimum Internal Yield Pressure	16,500	16,240	psi	
Minimum Pipe Body Yield Strength	829,000		lb	
Joint Strength		804,000	lb	
Compression Rating		482,000	lb	
Reference Length		23,304	ft	
Maximum Uniaxial Bend Rating		60.6	deg/100 ft	
MAKE-UP DATA	Pipe	USS-CDC HTQ <sup>®</sup>		
Make-Up Loss		4.63	in.	
Minimum Make-Up Torque		15,000	ft-lb	
Maximum Make-Up Torque		21,000	ft-lb	
Connection Yield Torque		30,800	ft-lb	

## Notes

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

#### Legal Notice

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

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



# <u>13-3/8"</u> <u>54.50#</u> <u>.380</u> <u>J-55</u>

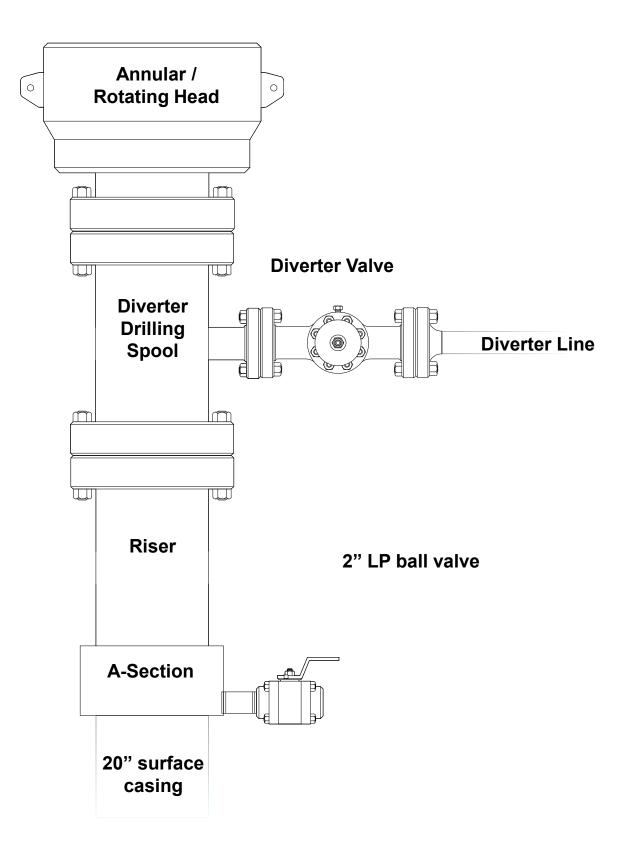
# **Dimensions (Nominal)**

Outside Diameter	13.375	in.
Wall	0.380	in.
Inside Diameter	12.615	in.
Drift	12.459	in.
Weight, T&C	54.500	lbs/ft
Weight, PE	52.790	lbs/ft

## Performance Ratings, Minimum

Collapse, PE	1130	psi
Internal Yields Pressure		
PE	2730	psi
STC	2730	PSI
BTC	2730	psi
Yield Strength, Pipe Body	853	1000 lbs
Joint Strength, STC	514	1000 lbs
Joint Strength, BTC	909	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.



## Issued on: 16 Dec. 2020 by Logan Van Gorp



# **Connection Data Sheet**

OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00	0.352 in.	P110EC	7.875 in.	VAM <sup>®</sup> SPRINT-FJ
	Plain End: 31.13		I	I	

PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	Hig	h Yield
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

CONNECTION PROP	ERTIES	
Connection Type	Semi-Premium Inte	egral Flush
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	6.038	sqin.
Tension Efficiency	65.0	% of pipe
Compression Efficiency	65.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

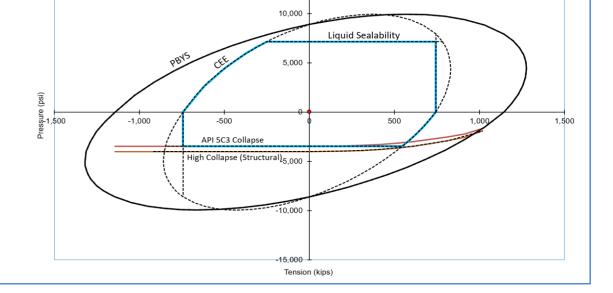
CONNECTION PERFORMANCES		
Tensile Yield Strength	744	klb
Compression Resistance	744	klb
Max. Internal Pressure	7,150	psi
Structural Collapse Resistance	4,000	psi
Max. Bending with Sealability	41	°/100ft
Max. Bending with Sealability	10	°/100ft

TORQUE VALUES		
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	TBD	ft.lb

\* 87.5% RBW

**VAM® SPRINT-FJ** is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension

capacity are required for intermediate casing strings.



15,000

# Do you need help on this product? - Remember no one knows $\text{VAM}^{\circledast}$ like $\text{VAM}^{\circledast}$

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- uk@vamfieldservice.com dubai@vamfieldservice.com nigeria@vamfieldservice.com angola@vamfieldservice.com

china@vamfieldservice.com baku@vamfieldservice.com singapore@vamfieldservice.com australia@vamfieldservice.com

### Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

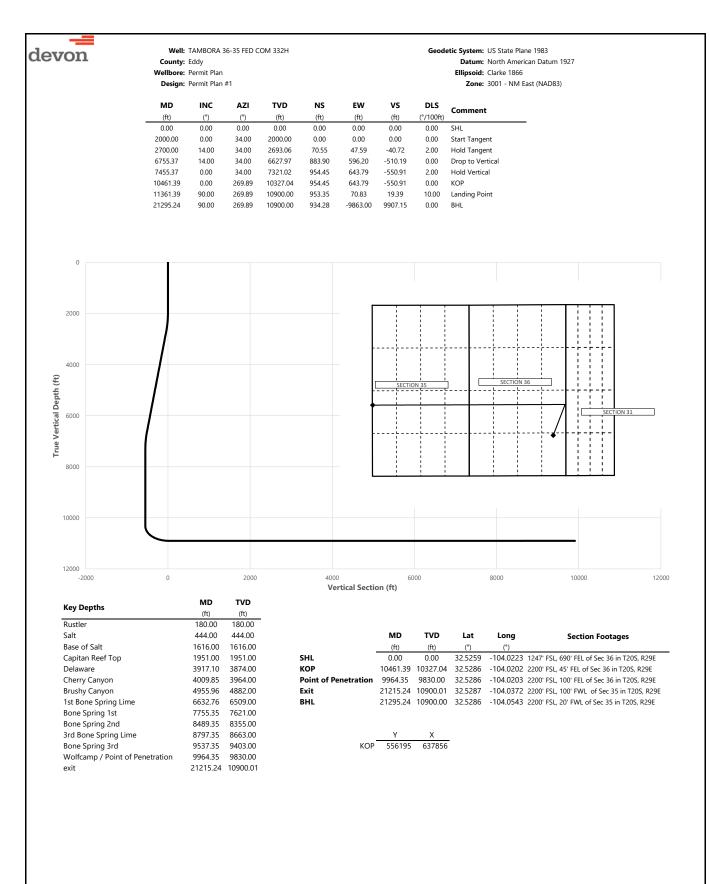






<u>10-3/4"</u>	<u>45.50#</u>	<u>0.400"</u>	<u>J-55</u>	
<b>Dimensions</b>	(Nominal)			
Outside Diameter Wall Inside Diameter Drift Weight, T&C Weight, PE			10.750 0.400 9.950 9.875 45.500 44.260	in. in. in. Ibs/ft Ibs/ft
Performance	e Properties			
Collapse			2090	psi
Internal Yield Pres	sure at Minimum Yield			
	PE		3580	psi
	STC		3580	psi
	втс		3580	psi
Yield Strength, Pip	e 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.



evon		County: Wellbore:	Eddy Permit Plan		DM 332H				Geodetic System: US State Plane 1983 Datum: North American Datum 1927 Ellipsoid: Clarke 1866
	MD	Design:	Permit Plan	#1 TVD	NS	EW	vs	DLS	Zone: 3001 - NM East (NAD83)
	(ft)	(°)	(°)	(ft)	(ft)	<b>E VV</b> (ft)	(ft)	(°/100ft)	Comment
-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
	100.00	0.00	34.00	100.00	0.00	0.00	0.00	0.00	
	180.00	0.00	34.00	180.00	0.00	0.00	0.00	0.00	Rustler
	200.00	0.00	34.00	200.00	0.00	0.00	0.00	0.00	
	300.00	0.00	34.00	300.00	0.00	0.00	0.00	0.00	
	400.00	0.00	34.00	400.00	0.00	0.00	0.00	0.00	
	444.00	0.00	34.00	444.00	0.00	0.00	0.00	0.00	Salt
	500.00	0.00	34.00	500.00	0.00	0.00	0.00	0.00	
	600.00	0.00	34.00	600.00	0.00	0.00	0.00	0.00	
	700.00	0.00	34.00	700.00	0.00	0.00	0.00	0.00	
	800.00	0.00	34.00	800.00	0.00	0.00	0.00	0.00	
	900.00	0.00	34.00	900.00	0.00	0.00	0.00	0.00	
	1000.00	0.00	34.00	1000.00	0.00	0.00	0.00	0.00	
	1100.00	0.00	34.00	1100.00	0.00	0.00	0.00	0.00	
	1200.00	0.00	34.00	1200.00	0.00	0.00	0.00	0.00	
	1300.00	0.00	34.00	1300.00	0.00	0.00	0.00	0.00	
	1400.00	0.00	34.00	1400.00	0.00	0.00	0.00	0.00	
	1500.00 1600.00	0.00 0.00	34.00 34.00	1500.00 1600.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	
	1600.00	0.00	34.00 34.00	1616.00	0.00	0.00	0.00	0.00	Base of Salt
	1700.00	0.00	34.00	1700.00	0.00	0.00	0.00	0.00	base of Salt
	1800.00	0.00	34.00	1800.00	0.00	0.00	0.00	0.00	
	1900.00	0.00	34.00	1900.00	0.00	0.00	0.00	0.00	
	1951.00	0.00	34.00	1951.00	0.00	0.00	0.00	0.00	Capitan Reef Top
	2000.00	0.00	34.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
	2100.00	2.00	34.00	2099.98	1.45	0.98	-0.84	2.00	
	2200.00	4.00	34.00	2199.84	5.79	3.90	-3.34	2.00	
	2300.00	6.00	34.00	2299.45	13.01	8.78	-7.51	2.00	
	2400.00	8.00	34.00	2398.70	23.11	15.59	-13.34	2.00	
	2500.00	10.00	34.00	2497.47	36.08	24.34	-20.83	2.00	
	2600.00	12.00	34.00	2595.62	51.90	35.01	-29.96	2.00	
	2700.00	14.00	34.00	2693.06	70.55	47.59	-40.72	2.00	Hold Tangent
	2800.00	14.00	34.00	2790.08	90.60	61.11	-52.30	0.00	-
	2900.00	14.00	34.00	2887.11	110.66	74.64	-63.87	0.00	
	3000.00	14.00	34.00	2984.14	130.72	88.17	-75.45	0.00	
	3100.00	14.00	34.00	3081.17	150.77	101.70	-87.03	0.00	
	3200.00	14.00	34.00	3178.20	170.83	115.23	-98.60	0.00	
	3300.00	14.00	34.00	3275.23	190.89	128.75	-110.18	0.00	
	3400.00	14.00	34.00	3372.26	210.94	142.28	-121.76	0.00	
	3500.00	14.00	34.00	3469.29	231.00	155.81	-133.33	0.00	
	3600.00	14.00	34.00	3566.32	251.05	169.34	-144.91	0.00	
	3700.00	14.00	34.00	3663.35	271.11	182.87	-156.49	0.00	
	3800.00	14.00	34.00	3760.38	291.17	196.39	-168.06	0.00	
	3900.00	14.00	34.00	3857.41	311.22	209.92	-179.64	0.00	
	3917.10	14.00	34.00	3874.00	314.65	212.24	-181.62	0.00	Delaware
	4000.00	14.00	34.00	3954.44	331.28	223.45	-191.21	0.00	
	4009.85	14.00	34.00	3964.00	333.26	224.78	-192.36	0.00	Cherry Canyon
	4100.00	14.00	34.00	4051.47	351.34	236.98	-202.79	0.00	
	4200.00	14.00	34.00	4148.50	371.39	250.51	-214.37	0.00	
	4300.00	14.00	34.00	4245.53	391.45	264.03	-225.94	0.00	
	4400.00	14.00	34.00	4342.56	411.50	277.56	-237.52 -249.10	0.00	
	4500.00 4600.00	14.00 14.00	34.00 34.00	4439.59 4536.62	431.56	291.09 304.62	-249.10 -260.67	0.00 0.00	
	4600.00 4700.00	14.00 14.00	34.00 34.00	4536.62 4633.65	451.62 471.67	304.62 318.15	-260.67 -272.25	0.00	
	4700.00 4800.00	14.00 14.00		4633.65 4730.68	471.67 491.73	318.15	-272.25 -283.83	0.00	
	4800.00 4900.00	14.00	34.00 34.00	4730.68 4827.71	491.73 511.79	331.68	-283.83 -295.40	0.00	
	4900.00 4955.96	14.00	34.00 34.00	4827.71	523.01	345.20 352.77	-295.40 -301.88	0.00	Brushy Canyon
	4955.90 5000.00	14.00	34.00	4882.00 4924.74	531.84	358.73	-306.98	0.00	crashy curryon
	5100.00	14.00	34.00	4924.74 5021.77	551.90	372.26	-318.56	0.00	
	5200.00	14.00	34.00	5118.79	571.95	385.79	-330.13	0.00	
	5300.00	14.00	34.00	5215.82	592.01	399.32	-341.71	0.00	
	5400.00	14.00	34.00	5215.82	612.07	412.84	-341.71	0.00	
	5500.00	14.00	34.00	5312.85	632.12	412.84	-355.29	0.00	
	5600.00	14.00	34.00	5409.88 5506.91	652.12	420.57	-304.80	0.00	
	5700.00	14.00	34.00	5603.94	672.23	453.43	-376.44	0.00	
	5800.00	14.00	34.00 34.00	5603.94 5700.97	692.29	453.43 466.96	-388.01	0.00	
	5800.00 5900.00	14.00	34.00 34.00	5700.97 5798.00	712.35	466.96 480.48	-399.59 -411.17	0.00	
	6000.00	14.00	34.00 34.00	5798.00 5895.03	712.35	480.48 494.01	-411.17 -422.74	0.00	
	6100.00			5895.03 5992.06	732.40	494.01 507.54	-422.74 -434.32	0.00	
		14.00	34.00						
	6200.00	14.00	34.00	6089.09	772.52	521.07	-445.90	0.00	

devon				36-35 FED CC	DM 332H				Geodetic System: US State Plane 1983
aevon		County:	,						Datum: North American Datum 1927
			Permit Plar Permit Plar						Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)
		Design							
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
-	(ft) 6300.00	(°) 14.00	(°) 34.00	(ft) 6186.12	(ft) 792.57	(ft) 534.60	(ft) -457.47	(°/100ft) 0.00	
	6400.00	14.00	34.00	6283.15	812.63	548.12	-469.05	0.00	
	6500.00	14.00	34.00	6380.18	832.68	561.65	-480.63	0.00	
	6600.00	14.00	34.00	6477.21	852.74	575.18	-492.20	0.00	
	6632.76	14.00	34.00	6509.00	859.31	579.61	-496.00	0.00	1st Bone Spring Lime
	6700.00 6755.37	14.00 14.00	34.00 34.00	6574.24 6627.97	872.80 883.90	588.71 596.20	-503.78 -510.19	0.00 0.00	Drop to Vertical
	6800.00	14.00	34.00	6671.35	892.57	602.05	-515.20	2.00	
	6900.00	11.11	34.00	6769.12	909.96	613.78	-525.23	2.00	
	7000.00	9.11	34.00	6867.56	924.51	623.59	-533.63	2.00	
	7100.00	7.11	34.00	6966.56	936.20	631.48	-540.38	2.00	
	7200.00 7300.00	5.11 3.11	34.00 34.00	7065.99 7165.72	945.02 950.96	637.42 641.43	-545.47 -548.90	2.00 2.00	
	7400.00	1.11	34.00 34.00	7265.65	950.98 954.01	643.49	-548.90	2.00	
	7455.37	0.00	34.00	7321.02	954.45	643.79	-550.91	2.00	Hold Vertical
	7500.00	0.00	269.89	7365.65	954.45	643.79	-550.91	0.00	
	7600.00	0.00	269.89	7465.65	954.45	643.79	-550.91	0.00	
	7700.00	0.00	269.89	7565.65	954.45	643.79	-550.91	0.00	Dana Craine 1st
	7755.35 7800.00	0.00 0.00	269.89 269.89	7621.00 7665.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	Bone Spring 1st
	7900.00	0.00	269.89	7765.65	954.45	643.79	-550.91	0.00	
	8000.00	0.00	269.89	7865.65	954.45	643.79	-550.91	0.00	
	8100.00	0.00	269.89	7965.65	954.45	643.79	-550.91	0.00	
	8200.00	0.00	269.89	8065.65	954.45	643.79	-550.91	0.00	
	8300.00 8400.00	0.00 0.00	269.89 269.89	8165.65 8265.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	8489.35	0.00	269.89	8355.00	954.45 954.45	643.79 643.79	-550.91	0.00	Bone Spring 2nd
	8500.00	0.00	269.89	8365.65	954.45	643.79	-550.91	0.00	
	8600.00	0.00	269.89	8465.65	954.45	643.79	-550.91	0.00	
	8700.00	0.00	269.89	8565.65	954.45	643.79	-550.91	0.00	
	8797.35	0.00	269.89	8663.00	954.45	643.79	-550.91	0.00	3rd Bone Spring Lime
	8800.00 8900.00	0.00 0.00	269.89 269.89	8665.65 8765.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	9000.00	0.00	269.89	8865.65	954.45	643.79	-550.91	0.00	
	9100.00	0.00	269.89	8965.65	954.45	643.79	-550.91	0.00	
	9200.00	0.00	269.89	9065.65	954.45	643.79	-550.91	0.00	
	9300.00	0.00	269.89	9165.65	954.45	643.79	-550.91	0.00	
	9400.00 9500.00	0.00 0.00	269.89 269.89	9265.65 9365.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	9537.35	0.00	269.89	9403.00	954.45	643.79	-550.91	0.00	Bone Spring 3rd
	9600.00	0.00	269.89	9465.65	954.45	643.79	-550.91	0.00	Jerry Jerry
	9700.00	0.00	269.89	9565.65	954.45	643.79	-550.91	0.00	
	9800.00	0.00	269.89	9665.65	954.45	643.79	-550.91	0.00	
	9900.00 9964.35	0.00 0.00	269.89 269.89	9765.65 9830.00	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	Wolfcamp / Point of Penetration
	10000.00	0.00	269.89	9865.65	954.45	643.79	-550.91	0.00	woncamp / Foint of Fenetration
	10100.00	0.00	269.89	9965.65	954.45	643.79	-550.91	0.00	
	10200.00	0.00	269.89	10065.65	954.45	643.79	-550.91	0.00	
	10300.00	0.00	269.89	10165.65	954.45	643.79	-550.91	0.00	
	10400.00 10461.39	0.00 0.00	269.89 269.89	10265.65 10327.04	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	КОР
	10461.39	3.86	269.89	10327.04	954.45 954.45	643.79 642.49	-550.91	10.00	
	10600.00	13.86	269.89	10464.30	954.42	627.10	-534.30	10.00	
	10700.00	23.86	269.89	10558.81	954.36	594.82	-502.17	10.00	
	10800.00	33.86	269.89	10646.28	954.26	546.61	-454.19	10.00	
	10900.00	43.86	269.89	10724.05	954.14	483.95	-391.81	10.00	
	11000.00 11100.00	53.86 63.86	269.89 269.89	10789.75 10841.40	954.00 953.83	408.73 323.25	-316.95 -231.86	10.00 10.00	
	11200.00	73.86	269.89	10877.42	953.66	230.10	-139.14	10.00	
	11300.00	83.86	269.89	10896.71	953.47	132.11	-41.60	10.00	
	11361.39	90.00	269.89	10900.00	953.35	70.83	19.39	10.00	Landing Point
	11400.00	90.00	269.89	10900.00	953.28	32.22	57.82	0.00	
	11500.00 11600.00	90.00 90.00	269.89 269.89	10900.00 10900.00	953.08 952.89	-67.78 -167.78	157.35 256.89	0.00 0.00	
	11600.00	90.00 90.00	269.89 269.89	10900.00	952.89 952.70	-167.78 -267.78	256.89 356.43	0.00	
	11800.00	90.00	269.89	10900.00	952.51	-367.78	455.96	0.00	
	11900.00	90.00	269.89	10900.00	952.32	-467.78	555.50	0.00	
	12000.00	90.00	269.89	10900.00	952.12	-567.78	655.03	0.00	
	12100.00	90.00	269.89	10900.00	951.93	-667.78	754.57	0.00	
	12200.00	90.00	269.89	10900.00	951.74	-767.78	854.11	0.00	

		County:	Eddy	36-35 FED CC	M 332H				Geodetic System: US State Plane 1983 Datum: North American Datum 19
			Permit Plar Permit Plar						Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
12	(ft) 2300.00	(°) 90.00	(°) 269.89	(ft) 10900.00	(ft) 951.55	(ft) -867.78	(ft) 953.64	(°/100ft) 0.00	
	2400.00	90.00	269.89	10900.00	951.35	-967.78	1053.18	0.00	
	2500.00	90.00	269.89	10900.00	951.16	-1067.78	1152.71	0.00	
	2600.00	90.00	269.89	10900.00	950.97	-1167.78	1252.25	0.00	
	2700.00	90.00	269.89	10900.00	950.78	-1267.78	1351.79	0.00	
12	2800.00	90.00	269.89	10900.00	950.58	-1367.78	1451.32	0.00	
12	2900.00	90.00	269.89	10900.00	950.39	-1467.77	1550.86	0.00	
13	3000.00	90.00	269.89	10900.00	950.20	-1567.77	1650.40	0.00	
13	3100.00	90.00	269.89	10900.00	950.01	-1667.77	1749.93	0.00	
13	3200.00	90.00	269.89	10900.00	949.81	-1767.77	1849.47	0.00	
13	3300.00	90.00	269.89	10900.00	949.62	-1867.77	1949.00	0.00	
13	3400.00	90.00	269.89	10900.00	949.43	-1967.77	2048.54	0.00	
	3500.00	90.00	269.89	10900.00	949.24	-2067.77	2148.08	0.00	
	3600.00	90.00	269.89	10900.00	949.04	-2167.77	2247.61	0.00	
	3700.00	90.00	269.89	10900.00	948.85	-2267.77	2347.15	0.00	
	3800.00	90.00	269.89	10900.00	948.66	-2367.77	2446.68	0.00	
	3900.00	90.00	269.89	10900.00	948.47	-2467.77	2546.22	0.00	
	4000.00	90.00	269.89	10900.00	948.28	-2567.77	2645.76	0.00	
	4100.00	90.00	269.89	10900.00	948.08	-2667.77	2745.29	0.00	
	4200.00	90.00	269.89	10900.00	947.89	-2767.77	2844.83	0.00	
	4300.00	90.00	269.89	10900.00	947.70	-2867.77	2944.36	0.00	
	1400.00 1500.00	90.00 90.00	269.89 269.89	10900.00 10900.00	947.51 947.31	-2967.77 -3067.77	3043.90 3143.44	0.00 0.00	
	4600.00			10900.00		-3067.77	3143.44 3242.97		
	4700.00	90.00 90.00	269.89 269.89	10900.00	947.12 946.93	-3167.77	3242.97 3342.51	0.00 0.00	
	4800.00	90.00	269.89	10900.00	946.95 946.74	-3267.77	3442.04	0.00	
	4900.00 4900.00	90.00	269.89	10900.00	946.74 946.54	-3467.77	3442.04 3541.58	0.00	
	5000.00	90.00	269.89	10900.00	946.35	-3567.77	3641.12	0.00	
	5100.00	90.00	269.89	10900.00	946.16	-3667.77	3740.65	0.00	
	5200.00	90.00	269.89	10900.01	945.97	-3767.77	3840.19	0.00	
	5300.00	90.00	269.89	10900.01	945.77	-3867.77	3939.72	0.00	
	5400.00	90.00	269.89	10900.01	945.58	-3967.77	4039.26	0.00	
	5500.00	90.00	269.89	10900.01	945.39	-4067.77	4138.80	0.00	
	5600.00	90.00	269.89	10900.01	945.20	-4167.77	4238.33	0.00	
	5700.00	90.00	269.89	10900.01	945.00	-4267.77	4337.87	0.00	
	5800.00	90.00	269.89	10900.01	944.81	-4367.77	4437.40	0.00	
	5900.00	90.00	269.89	10900.01	944.62	-4467.77	4536.94	0.00	
	5000.00	90.00	269.89	10900.01	944.43	-4567.77	4636.48	0.00	
	5100.00	90.00	269.89	10900.01	944.24	-4667.77	4736.01	0.00	
	5200.00	90.00	269.89	10900.01	944.04	-4767.77	4835.55	0.00	
	5300.00	90.00	269.89	10900.01	943.85	-4867.77	4935.08	0.00	
16	5400.00	90.00	269.89	10900.01	943.66	-4967.77	5034.62	0.00	
16	5500.00	90.00	269.89	10900.01	943.47	-5067.77	5134.16	0.00	
16	5600.00	90.00	269.89	10900.01	943.27	-5167.77	5233.69	0.00	
16	5700.00	90.00	269.89	10900.01	943.08	-5267.77	5333.23	0.00	
16	5800.00	90.00	269.89	10900.01	942.89	-5367.77	5432.76	0.00	
16	5900.00	90.00	269.89	10900.01	942.70	-5467.77	5532.30	0.00	
	7000.00	90.00	269.89	10900.01	942.50	-5567.77	5631.84	0.00	
	7100.00	90.00	269.89	10900.01	942.31	-5667.77	5731.37	0.00	
	7200.00	90.00	269.89	10900.01	942.12	-5767.77	5830.91	0.00	
	7300.00	90.00	269.89	10900.01	941.93	-5867.77	5930.44	0.00	
	7400.00	90.00	269.89	10900.01	941.73	-5967.77	6029.98	0.00	
	7500.00	90.00	269.89	10900.01	941.54	-6067.77	6129.52	0.00	
	7600.00	90.00	269.89	10900.01	941.35	-6167.77	6229.05	0.00	
	7700.00	90.00	269.89	10900.01	941.16	-6267.77	6328.59	0.00	
	7800.00	90.00	269.89	10900.01	940.96	-6367.77	6428.12	0.00	
	7900.00	90.00	269.89	10900.01	940.77	-6467.77	6527.66	0.00	
	3000.00	90.00	269.89	10900.01	940.58	-6567.77	6627.20	0.00	
	3100.00	90.00	269.89	10900.01	940.39	-6667.77	6726.73	0.00	
	3200.00	90.00	269.89	10900.01	940.20	-6767.77	6826.27	0.00	
	3300.00	90.00	269.89	10900.01	940.00	-6867.76	6925.80	0.00	
	3400.00	90.00	269.89	10900.01	939.81	-6967.76	7025.34	0.00	
	3500.00	90.00	269.89	10900.01	939.62	-7067.76	7124.88	0.00	
	3600.00	90.00	269.89	10900.01	939.43	-7167.76	7224.41	0.00	
	3700.00	90.00	269.89	10900.01	939.23	-7267.76	7323.95	0.00	
	3800.00	90.00	269.89	10900.01	939.04	-7367.76	7423.48	0.00	
	3900.00	90.00	269.89	10900.01	938.85	-7467.76	7523.02	0.00	
	9000.00	90.00	269.89	10900.01	938.66	-7567.76	7622.56	0.00	
	9100.00	90.00	269.89	10900.01	938.46	-7667.76	7722.09	0.00	
	9200.00	90.00	269.89	10900.01	938.27	-7767.76	7821.63	0.00	

devon	Well: TAMBORA 36-35 FED COM 332H County: Eddy Wellbore: Permit Plan Design: Permit Plan #1								Geodetic System: US State Plane 1983 Datum: North American Datum 1923 Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)			
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment			
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)			_	
	19300.00	90.00	269.89	10900.01	938.08	-7867.76	7921.16	0.00				
	19400.00	90.00	269.89	10900.01	937.89	-7967.76	8020.70	0.00				
	19500.00	90.00	269.89	10900.01	937.69	-8067.76	8120.24	0.00				
	19600.00	90.00	269.89	10900.01	937.50	-8167.76	8219.77	0.00				
	19700.00	90.00	269.89	10900.01	937.31	-8267.76	8319.31	0.00				
	19800.00	90.00	269.89	10900.01	937.12	-8367.76	8418.84	0.00				
	19900.00	90.00	269.89	10900.01	936.92	-8467.76	8518.38	0.00				
	20000.00	90.00	269.89	10900.01	936.73	-8567.76	8617.92	0.00				
	20100.00	90.00	269.89	10900.01	936.54	-8667.76	8717.45	0.00				
	20200.00	90.00	269.89	10900.01	936.35	-8767.76	8816.99	0.00				
	20300.00	90.00	269.89	10900.01	936.16	-8867.76	8916.52	0.00				
	20400.00	90.00	269.89	10900.01	935.96	-8967.76	9016.06	0.00				
	20500.00	90.00	269.89	10900.01	935.77	-9067.76	9115.60	0.00				
	20600.00	90.00	269.89	10900.01	935.58	-9167.76	9215.13	0.00				
	20700.00	90.00	269.89	10900.01	935.39	-9267.76	9314.67	0.00				
	20800.00	90.00	269.89	10900.01	935.19	-9367.76	9414.20	0.00				
	20900.00	90.00	269.89	10900.01	935.00	-9467.76	9513.74	0.00				
	21000.00	90.00	269.89	10900.01	934.81	-9567.76	9613.28	0.00				
	21100.00	90.00	269.89	10900.01	934.62	-9667.76	9712.81	0.00				
	21200.00	90.00	269.89	10900.01	934.42	-9767.76	9812.35	0.00				
	21215.24	90.00	269.89	10900.01	934.39	-9783.00	9827.52	0.00	exit			
	21295.24	90.00	269.89	10900.00	934.28	-9863.00	9907.15	0.00	BHL			

Cerved by UCD: 12/18/2024 9:03:15 AM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Repor
Well Name: TAMBORA 36 35 FED COM	Well Location: T20S / R29E / SEC 36 / SESE / 32.5259892 / -104.0222596	County or Parish/State: EDDY / NM
Well Number: 332H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110351	Unit or CA Name:	Unit or CA Number:
<b>US Well Number:</b> 3001555559	<b>Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP	

### **Notice of Intent**

Sundry ID: 2827005

Type of Submission: Notice of Intent

Date Sundry Submitted: 12/11/2024

Date proposed operation will begin: 12/11/2024

Type of Action: APD Change Time Sundry Submitted: 05:07

**Procedure Description:** Attention Long Vo Devon Energy Production Co., L.P. (Devon) respectfully request to skid over from the original permitted SHL location of 1232 FSL, 690 FEL, SEC 36-20S-29E and re-drill the approved subject wellbore in a different SHL due to conductor and drilling design change. The new SHL will be 1247 FSL, 690 FEL, SEC 36-20S-29E. The new well name will be TAMBORA 36 35 FED COM 332H and have a separate API. We request the original well associated with API 30-015-55559 to have a well name change to TAMBORA 36 35 FED COM 332Y. Please see the attached new plat, drill plan, and directional.

**NOI Attachments** 

### **Procedure Description**

WA022025530\_TAMBORA\_36\_35\_FED\_COM\_332H\_WL\_R3\_SIGNED\_20241211152535.pdf

TAMBORA\_36\_35\_FED\_COM\_332H\_\_20241211152533.pdf

5.5\_23lb\_P110\_HP\_CDC\_HTQ\_20241211152532.pdf

13.375\_54.5lb\_J55\_20241211135542.pdf

Wellhead\_Diverter\_Drawing\_20241211135542.pdf

8.625\_32lb\_P110EC\_SPRINT\_FJ\_VST\_20241211135542.pdf

10.75\_45.5lb\_J55\_BTC\_20241211135541.pdf

TAMBORA\_36\_35\_FED\_COM\_332H\_Directional\_Plan\_12\_11\_24\_20241211131954.pdf

Received by OCD: 12/18/2024 9:03:15 AM Well Name: TAMBORA 36 35 FED COM	Well Location: T20S / R29E / SEC 36 / SESE / 32.5259892 / -104.0222596	County or Parish/State: EDDY of NM
Well Number: 332H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110351	Unit or CA Name:	Unit or CA Number:
<b>US Well Number:</b> 3001555559	<b>Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP	

### Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: CHELSEY GREEN Name: DEVON ENERGY PRODUCTION COMPANY LP Title: Regulatory Compliance Professional Street Address: 333 WEST SHERIDAN AVENUE City: OKLAHOMA CITY State: OK Phone: (405) 228-8595

Email address: CHELSEY.GREEN@DVN.COM

### **Field**

Representative Name: Street Address: City: State: Phone: Email address: Signed on: DEC 12, 2024 08:03 AM

Zip:

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company LP -
LOCATION:	Section 36, T.20 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico -
WELL NAME & NO.:	Tambora 36 35 Fed Com 332H
ATS/API ID:	N/a
APD ID:	N/a
Sundry ID:	2827005

COA

Primary Desig	511.		
H2S	No		
Potash	Secretary 💌	None	
Cave/Karst Potential	Medium 💌		
Cave/Karst Potential	Critical		
Variance	C None	🖸 Flex Hose	C Other
Wellhead	Conventional and Multibov	vl 🔽	
Other	■ 4 String □ 5 String	Capitan Reef Int 2	□WIPP
Other	Pilot Hole None	C Open Annulus	
Cementing	Contingency Squeeze	Echo-Meter Int 2	Primary Cement Squeeze None
Special Requirements	□ Water Disposal/Injection	COM	Unit Unit
Special Requirements	Batch Sundry	Waste Prevention None	
Special Requirements Variance	✓ Break Testing	✓ Offline Cementing	Casing Clearance

# Primary Design:

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And hat Design.			
Potash	Secretary 💌	None	
Cave/Karst Potential	Medium 💌		
Cave/Karst Potential	Critical		
Other	□ 4 String <b>I</b> 5 String	Capitan Reef	WIPP
Other	Pilot Hole None	Open Annulus	
Cementing	Contingency Squeeze	Echo-Meter	Primary Cement Squeeze None

### Alternate Design:

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### **PRIMARY DESIGN**

### **B.** CASING

- 1. The 20 inch surface casing shall be set at approximately 450 feet (a minimum of 70 feet (Eddy 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 26 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.

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.

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

- 2. The minimum required fill of cement behind the 13-3/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

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

3. The minimum required fill of cement behind the 10-3/4 inch intermediate casing is:

### **Option 1 (Single Stage):**

Cement should tie-back at least 50 feet on top of Capitan Reef top or 500 feet into the previous casing, whichever is greater and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

### **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 **Capitan Reef at 1951'.**
- b. Second stage:
  - Operator will perform bradenhead squeeze from the top of **Capitan Reef** to at least **50 feet** on top of the Capitan Reef top **or 500 feet** into the previous casing, whichever is greater and may be lower than USGS Marker Bed No. 126. If cement does not meet the minimum tie-back requirement, the appropriate BLM office shall be notified. (Squeeze 142 sxs Class C)

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Operator has proposed to pump down **13-3/8**" X **10-3/4**" 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 **10-3/4**" casing to surface after the second stage <u>BH to verify TOC.</u></u>

Submit results to the BLM. Operator must run one CBL per Well Pad. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

- In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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

- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back 500 feet into the previous casing and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

### ALTERNATE DESIGN

### C. CASING

- 5. The 20 inch surface casing shall be set at approximately 450 feet (a minimum of 70 feet (Eddy 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 26 inch in diameter.
  - e. 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.
  - f. Wait on cement (WOC) time for a primary cement job will be a minimum of  $\underline{8}$ <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - g. 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.
  - h. If cement falls back, remedial cementing will be done prior to drilling out that string.

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.

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

6. The minimum required fill of cement behind the 13-3/8 inch intermediate casing is:

### **Option 1 (Single Stage):**

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

### **Option 2:**

Operator has proposed a DV tool(s), the depth may be adjusted as long as the cement is changed proportionally. The DV tool(s) may be cancelled if cement circulates to surface on the first stage.

DV tool(s) shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall contact the BLM if DV tool(s) depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- c. First stage to DV tool(s): Cement to circulate. If cement does not circulate off the DV tool(s), contact the appropriate BLM office before proceeding with second stage cement job.
- d. Second stage above DV tool(s):
  - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

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

7. The minimum required fill of cement behind the 10-3/4 inch intermediate casing is:

### **Option 1 (Single Stage):**

• Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 500 feet** into the previous casing, whichever is greater and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM. If cement does not circulate see B.1.a, c-d above.

### Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

### **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.

- e. First stage: Operator will cement with intent to reach the top of the Capitan Reef at 1951'.
- f. Second stage:
  - Operator will perform bradenhead squeeze from the top of **Capitan Reef** to at least **50 feet** on top of the Capitan Reef top **or 500 feet** into the previous casing, whichever is greater and may be lower than USGS Marker Bed No. 126. If cement does not meet the minimum tie-back requirement, the appropriate BLM office shall be notified. (Squeeze 142 sxs Class C)

### Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

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 BH to verify TOC.</u>

Submit results to the BLM. Operator must run one CBL per Well Pad. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

- In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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

- 8. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
  - Cement should tie-back 500 feet into the previous casing and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
  - ✤ The mud weight shall be from 10-10.5 ppg.
- 9. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back **500 feet** into the previous casing and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. 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.

### **D. 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 tested to 800 psi. A Diverter system is approved as a variance to drill the 13-3/8 inch intermediate casing section in a 17-1/2 inch hole.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 intermediate casing shoe shall be 3000 (3M) psi. Annular which shall be tested to 2100 (70% Working Pressure) psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 10-3/4 inch intermediate casing shoe shall be 5000 (5M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

### **Option 2:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be tested to **800** psi. A Diverter system is approved as a variance to drill the **13-3/8** inch intermediate casing section in a **17-1/2** inch hole.
- b. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch intermediate 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.

### E. 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 (575-361-2822 Eddy 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.

### **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 Eddy County: 575-361-2822.

# **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)

Eddy County EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV (575) 361-2822

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

## A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or

if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

- <u>Wait on cement (WOC) for Potash Areas:</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 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) 12/16/2024

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Form 3160-5 (June 2019)	UNITED STAT DEPARTMENT OF THE BUREAU OF LAND MAN	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021 5. Lease Serial No. 6. If Indian, Allottee or Tribe Name				
SUND Do not use t	RY NOTICES AND REP his form for proposals vell. Use Form 3160-3 (A					
SUBM	IT IN TRIPLICATE - Other inst	ructions on page 2	7. If Unit of CA/Agreement, Na	ame and/or No.		
1. Type of Well	Gas 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 Exploratory Area			
4. Location of Well (Footage, Se	c., T.,R.,M., or Survey Description	)	11. Country or Parish, State			
12	. CHECK THE APPROPRIATE E	BOX(ES) TO INDICATE NATURE (	OF NOTICE, REPORT OR OTH	ER DATA		
TYPE OF SUBMISSION		TYPE	E OF ACTION			
Notice of Intent	Acidize	Deepen [ Hydraulic Fracturing [	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity		
Subsequent Report	Casing Repair Change Plans	New Construction Plug and Abandon	Recomplete Temporarily Abandon	Other		
Final Abandonment Notic	e Convert to Injection	n Plug Back	Water Disposal			
the proposal is to deepen dire the Bond under which the we completion of the involved o	ectionally or recomplete horizonta ork will be perfonned or provide the perations. If the operation results	lly, give subsurface locations and me ne Bond No. on file with BLM/BIA. I in a multiple completion or recomple	asured and true vertical depths of Required subsequent reports mus tion 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 e operator has detennined that the site		

14. I hereby certify that the foregoing is true and correct. Name ( <i>Printed/Typed</i> )			
Т	ĩitle		
Circuiture T	D-4-		
Signature [	Date		
THE SPACE FOR FEDER	RAL OR STATE O	FICE USE	
Approved by			
	Title	Date	
Conditions of approval, if any, are attached. Approval of this notice does not warrant o 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.			
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

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

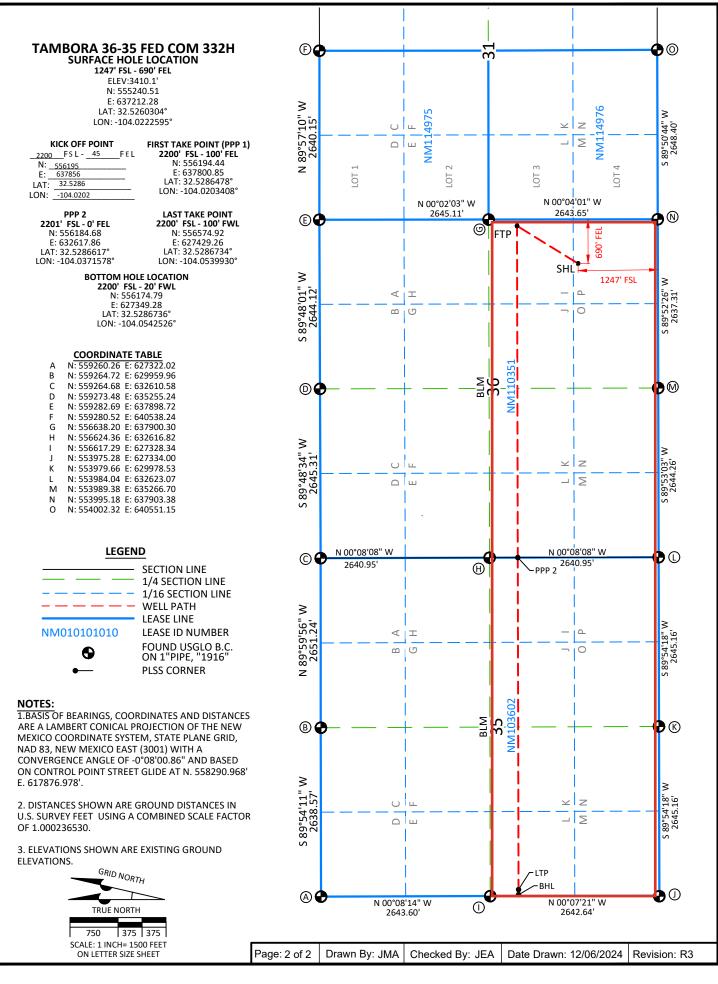
# **Additional Information**

### **Location of Well**

0. SHL: SESE / 1232 FSL / 690 FEL / TWSP: 20S / RANGE: 29E / SECTION: 36 / LAT: 32.5259892 / LONG: -104.0222596 (TVD: 0 feet, MD: 0 feet ) PPP: NESE / 2201 FSL / 187 FEL / TWSP: 20S / RANGE: 29E / SECTION: 35 / LAT: 32.5286626 / LONG: -104.0377645 (TVD: 10900 feet, MD: 16200 feet ) PPP: NESE / 2200 FSL / 632 FEL / TWSP: 20S / RANGE: 29E / SECTION: 36 / LAT: 32.5286504 / LONG: -104.0220668 (TVD: 10900 feet, MD: 11361 feet ) BHL: NWSW / 2200 FSL / 20 FWL / TWSP: 20S / RANGE: 29E / SECTION: 35 / LAT: 32.5286736 / LONG: -104.0542526 (TVD: 10900 feet, MD: 21281 feet ) Received by OCD: 12/18/2024 9:03:15 AM

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via oc		9							Туре:	☐ As Drilled	
					WELLIG						
API Nu	umber		Pool Code	g	98857			C 20S29E28; WO	LFCAMP		
Proper	ty Code	6433	Property Na	ame	TAMBORA					Well Numb	ber
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						Surfa	ace Location				
UL	Section	Township	Range	Lot	Ft. from N		t. from E/W	Latitude	Longitude	9	County
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UL	Section	Township	Range	Lot	Ft. from N	N/S F	t. from E/W	Latitude	Longitude	9	County
L	35	20-S	29-E		2200/	S	20/W	32.5286736°	-104.0	542526°	EDDY
Dedica	ated Acres	Infill or Defir	ning Well	Defini	ng Well API		Overlappi	ng Spacing Unit (Y/N)	Consolida	ation Code	
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I	36	20S	29E		2200 S	;	45 E	32.5286	-104.02	02	EDDY
					Fi	irst Ta	ke Point (FT	P)			
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Ι	36	20-S	29-Е		2200/	S	100/E	32.5286478°	-104.0	203408°	EDDY
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UL	Section	Township	Range	Lot	Ft. from N		Ft. from E/W	Latitude	Longitude		County
L	35	20-S	29-E		2200/	S	100/W	32.5286734°	-104.0	539930°	EDDY
Linitiza		Awar of Unit			Specing	Linit Ty	/pe: 🛛 Horiz	contal 🗌 Vertical	Ground	Floor Elevati	on:
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OPER/	ATOR CERTI	FICATIONS:		Î	SURVEYOR	NOTES	5:	SURVEYO	R CERTIFICA	TIONS:	
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.					THE NEW M ZONE COOR 83 (2011), B OBSERVATIO CONTROL PH AT AT N:573 ORTHO:331 OPUS SOLU 2019. UNIT PLAT ARE IN 2. DISTANCES REPORTED A US SURVEY SCALE FACT 3. ELEVATIONS EXISTING 6F NOTED. 4. KARST AREA AREAS AND WERE PROV AND NOT LO	IEXICO S IDINATE ASED FF DNS, OCC OINT (5, 3800.96; 0.859. E TION ON S REPRE I US SUR DEPICTE S SHOWI ROUND I S, POTA DRILL IS VIDED BY DCATED FHIS SUF	CUPYING A WH: (8" REBAR), LOC 1 E:638393.683 DETERMINED BY N SEPTEMBER 5T SENTED ON TH ESENTED ON TH ED HEREON ARE JND DISTANCES ING A COMBINE LO00234835 N OR LISTED AR ELEVATIONS UN ASH BUFFERS, LE SLANDS, IF SHON Y DEVON ENERG ON THE GROUN RVEY, LOCATION	ST Was plotter , NAD me or unde and correct S ATED AN TH, S S IN E LESS E LESS CASE WN, Y UD AS Signat	er my supervis t to the best of OH PROFESS	NE. ALL MEXICO VONAL SUR	ter and the second seco
	CHE	LSEY.GREEN@E	OVN.COM			1		Certificate N	lo. Name		Date of Survey
E-mail A	Address				Page: 1 of 2	Draw	vn Bv: JMA	Checked By: JEA	ate Drawn	12/06/2024	Revision R3

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division. Released to Imaging: 12/18/2024 3:09:58 PM



### 1. Geologic Formations

TVD of target	10900	Pilot hole depth	N/A
MD at TD:	21295	Deepest expected fresh water	

Basin

Dasiii			
	Depth	Water/Mineral	
Formation	(TVD)	<b>Bearing/Target</b>	Hazards*
	from KB	Zone?	
Rustler	180		
Salt	444		
Base of Salt	1616		
Capitan Reef Top	1951		
Delaware	3942		
Cherry Canyon	3964		
Brushy Canyon	4882		
1st Bone Spring Lime	6509		
Bone Spring 1st	7621		
Bone Spring 2nd	8355		
3rd Bone Spring Lime	8663		
Bone Spring 3rd	9403		
Wolfcamp	9830		

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

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
26	20	94.0	K-55	BTC	0.0	250 MD	0	250 TVD
17 1/2	13 3/8	54.5	J-55	BTC	0.0	1850 MD	0	1850 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	4000	0	4000
9 7/8	5 1/2	23.0	P110HP	CDC HTQ	0	21295 MD	0	10900 TVD

#### 2. Casing Program (Primary Design)

•9.875" hole down to KOP, then 8.75" to bottom of curve, then 8.5" to Total Depth

• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

#### 3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	479	Surf	13.2	1.44	Lead: Class C Cement + additives
Int	2285	0	13.2	1.44	Tail: Class H / C + additives
Int 2	142	Surf	9	3.27	Lead: Class C Cement + additives
Int 2	364	1951	13.2	1.44	Tail: Class H / C + additives
Production	1302	0	9	3.27	Lead: Class H /C + additives
Froduction	3681	8160	13.2	1.44	Tail: Class H / C + additives

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate 2 casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef 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 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	30%
Intermediate 2 (Two Stage)	25%
Prod	10%

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
26	20	94.0	K-55	BTC	0.0	250 MD	0	250 TVD
17 1/2	13 3/8	54.5	J-55	BTC	0.0	1850 MD	0	1850 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	4000	0	4000
9 7/8	8 5/8	32.0	P110EC	Sprint FJ	0	10160	0	10160
7 7/8	5 1/2	23.0	P110HP	CDC HTQ	0	21295 MD	0	10900 TVD

#### 2. Casing Program (Alternative Design)

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	479	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	2285	0	13.2	1.44	Tail: Class H / C + additives
Let 2	142	Surf	9	3.27	Lead: Class C Cement + additives
Int 2	364	1951	13.2	1.44	Tail: Class H / C + additives
Int 3	364	2000	13	3.27	Lead: Class H /C + additives
int 5	401	6000	13.8	1.44	Tail: Class H / C + additives
Production	476	0	9	3.27	Lead: Class H /C + additives
Froduction	1738	8160	13.8	1.44	Tail: Class H / C + additives

3. Cementing Program (Alternative Design)

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate 2 casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef to surface. The final cement top will be verified by Echo-meter. Devon will include theEcho-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 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	30%
Intermediate 2 (Two Stage)	25%
Prod	10%

BOP installed and tested before drilling which hole?	Size?	Min. Require d WP	Туре		~	Tested to:		
			Anı	nular	Х	50% of rated working pressure		
Int	13-5/8"	5M	Bline	l Ram	Х			
Int	13-5/8	JIVI	Pipe	Ram		5M		
			Doub	le Ram	Х	JIVI		
			Other*					
	13-5/8"		Annul	ar (5M)	X	100% of rated working pressure		
Int 1		5M	Blind Ram		Х			
Int I			3141	13-5/6 5IVI	Pipe	Ram		5M
			Doub	le Ram	Х	5101		
			Other*			1		
			Annul	ar (5M)	X	100% of rated working pressure		
Production	13-5/8"	5M	Bline	d Ram	Х			
riodetion		5111	Pipe Ram			5M		
			Doub	le Ram	Х	JIVI		
			Other*					
N A variance is requested for	r the use of a	diverter or	the surface	casing. See	attached for s	schematic.		
N A variance is requested to	run a 5 M an	nular on a	10M system					

### 4. Pressure Control Equipment (Four String Design)

Diverter will be utilized on the 26in Surface hole. BOP will be rigged up on the first intermediate

#### 5. Mud Program (Four String Design)

Section	Туре	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	OBM	10-10.5

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

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

#### 6. Logging and Testing Procedures

Logging,	Coring 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 Report and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

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	5951
Abnormal temperature	No

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

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations<br/>greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is<br/>encountered measured values and formations will be provided to the BLM.NH2S 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 (OnShore Order 2, all COAs and NMOCD regulations).

 $^{3}$  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 53 of 65

# U. S. Steel Tubular Products 5.500" 23.00lb/ft (0.415" Wall) P110 HP USS-CDC HTQ<sup>®</sup>

MECHANICAL PROPERTIES	Pipe	USS-CDC HTQ <sup>®</sup>		
Minimum Yield Strength	125,000		psi	
Maximum Yield Strength	140,000		psi	
Minimum Tensile Strength	130,000		psi	
DIMENSIONS	Pipe	USS-CDC HTQ <sup>®</sup>		
Outside Diameter	5.500	6.300	in.	
Wall Thickness	0.415		in.	
Inside Diameter	4.670	4.670	in.	
Standard Drift	4.545	4.545	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	23.00		lb/ft	
Plain End Weight	22.56		lb/ft	
SECTION AREA	Pipe	USS-CDC HTQ <sup>®</sup>		
Critical Area	6.630	6.630	sq. in.	
Joint Efficiency		97.0	%	
PERFORMANCE	Pipe	USS-CDC HTQ <sup>®</sup>		
Minimum Collapse Pressure	16,470	16,470	psi	
External Pressure Leak Resistance		13,180	psi	
Minimum Internal Yield Pressure	16,500	16,240	psi	
Minimum Pipe Body Yield Strength	829,000		lb	
Joint Strength		804,000	lb	
Compression Rating		482,000	lb	
Reference Length		23,304	ft	
Maximum Uniaxial Bend Rating		60.6	deg/100 ft	
MAKE-UP DATA	Pipe	USS-CDC HTQ <sup>®</sup>		
Make-Up Loss		4.63	in.	
Minimum Make-Up Torque		15,000	ft-lb	
Maximum Make-Up Torque		21,000	ft-lb	
Connection Yield Torque				

# **Notes**

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

#### Legal Notice

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

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



# <u>13-3/8"</u> <u>54.50#</u> <u>.380</u> <u>J-55</u>

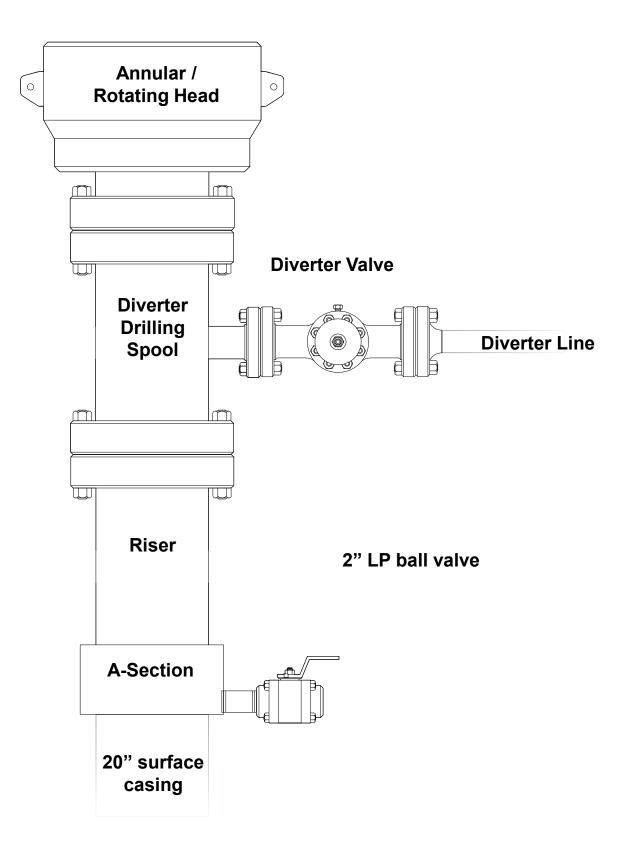
# **Dimensions (Nominal)**

Outside Diameter	13.375	in.
Wall	0.380	in.
Inside Diameter	12.615	in.
Drift	12.459	in.
Weight, T&C	54.500	lbs/ft
Weight, PE	52.790	lbs/ft

# Performance Ratings, Minimum

Collapse, PE	1130	psi
Internal Yields Pressure		
PE	2730	psi
STC	2730	PSI
BTC	2730	psi
Yield Strength, Pipe Body	853	1000 lbs
Joint Strength, STC	514	1000 lbs
Joint Strength, BTC	909	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.



Issued o Issued o Nomin Nomin Grade Min. Yi Max. Y Min. U

# Issued on: 16 Dec. 2020 by Logan Van Gorp



# **Connection Data Sheet**

OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00	0.352 in.	P110EC	7.875 in.	VAM <sup>®</sup> SPRINT-FJ
	Plain End: 31.13				

PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	Hig	h Yield
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

CONNECTION PR	OPERTIES	
Connection Type	Semi-Premium Inte	egral Flush
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	6.038	sqin.
Tension Efficiency	65.0	% of pipe
Compression Efficiency	65.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

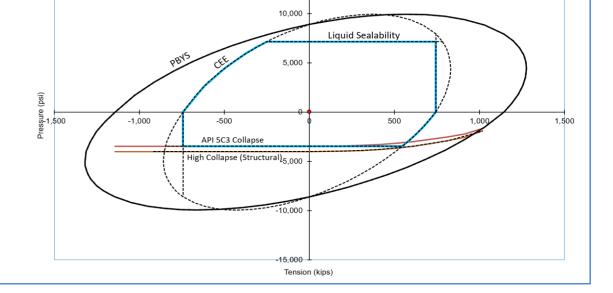
CONNECTION PERFORMANCES		
Tensile Yield Strength	744	klb
Compression Resistance	744	klb
Max. Internal Pressure	7,150	psi
Structural Collapse Resistance	4,000	psi
Max. Bending with Sealability	41	°/100ft
Max. Bending with Sealability	10	°/100ft

TORQUE VALUES		
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	TBD	ft.lb

\* 87.5% RBW

**VAM® SPRINT-FJ** is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension

capacity are required for intermediate casing strings.



15,000

# Do you need help on this product? - Remember no one knows $\text{VAM}^{\circledast}$ like $\text{VAM}^{\circledast}$

- canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com brazil@vamfieldservice.com
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# Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

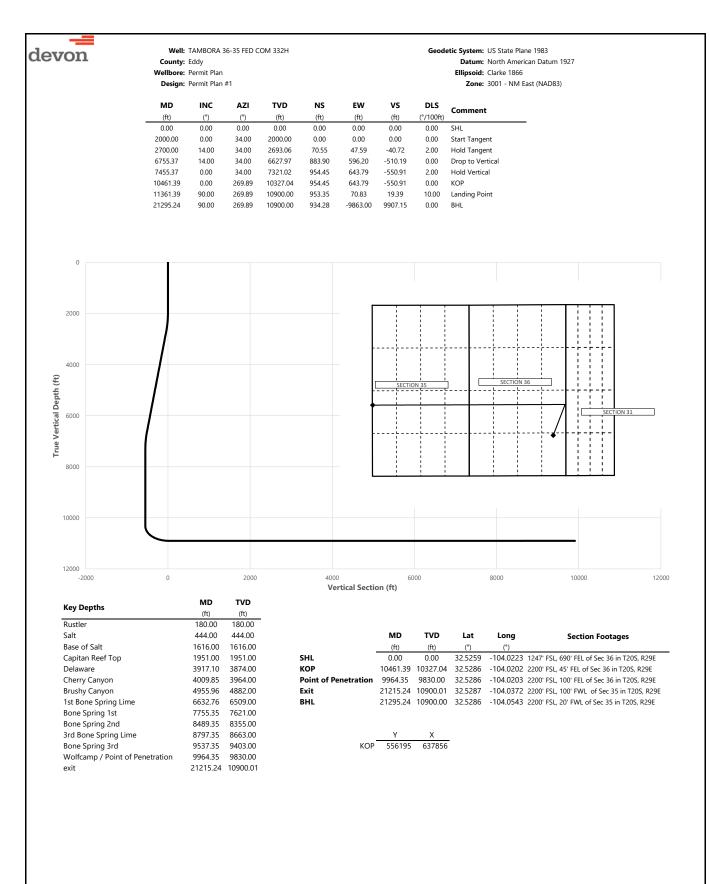






<u>10-3/4"</u>	<u>45.50#</u>	<u>0.400"</u>	<u>J-55</u>	
Dimensions (	(Nominal)			
Outside Diameter Wall Inside Diameter Drift			10.750 0.400 9.950 9.875	in. in. in. in.
Weight, T&C Weight, PE			45.500 44.260	lbs/ft lbs/ft
Performance	Properties			
Collapse			2090	psi
Internal Yield Pres	sure at Minimum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



levon		County:		36-35 FED CO	JM 332H				Geodetic System: US State Plane 1983 Datum: North American Datum 1927 Ellipsoid: Clarke 1866
			Permit Plar						Zone: 3001 - NM East (NAD83)
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
-	(ft) 0.00	(°) 0.00	(°) 0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(°/100ft) 0.00	SHL
	100.00	0.00	34.00	100.00	0.00	0.00	0.00	0.00	SHL
	180.00	0.00	34.00	180.00	0.00	0.00	0.00	0.00	Rustler
	200.00	0.00	34.00	200.00	0.00	0.00	0.00	0.00	
	300.00	0.00	34.00	300.00	0.00	0.00	0.00	0.00	
	400.00	0.00 0.00	34.00	400.00	0.00	0.00	0.00	0.00 0.00	Cal+
	444.00 500.00	0.00	34.00 34.00	444.00 500.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	Salt
	600.00	0.00	34.00	600.00	0.00	0.00	0.00	0.00	
	700.00	0.00	34.00	700.00	0.00	0.00	0.00	0.00	
	800.00	0.00	34.00	800.00	0.00	0.00	0.00	0.00	
	900.00	0.00	34.00	900.00	0.00	0.00	0.00 0.00	0.00	
	1000.00 1100.00	0.00 0.00	34.00 34.00	1000.00 1100.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	
	1200.00	0.00	34.00	1200.00	0.00	0.00	0.00	0.00	
	1300.00	0.00	34.00	1300.00	0.00	0.00	0.00	0.00	
	1400.00	0.00	34.00	1400.00	0.00	0.00	0.00	0.00	
	1500.00	0.00	34.00	1500.00	0.00	0.00	0.00	0.00	
	1600.00 1616.00	0.00 0.00	34.00 34.00	1600.00 1616.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	Base of Salt
	1700.00	0.00	34.00 34.00	1700.00	0.00	0.00	0.00	0.00	
	1800.00	0.00	34.00	1800.00	0.00	0.00	0.00	0.00	
	1900.00	0.00	34.00	1900.00	0.00	0.00	0.00	0.00	
	1951.00	0.00	34.00	1951.00	0.00	0.00	0.00	0.00	Capitan Reef Top
	2000.00 2100.00	0.00 2.00	34.00 34.00	2000.00 2099.98	0.00 1.45	0.00 0.98	0.00 -0.84	0.00 2.00	Start Tangent
	2200.00	4.00	34.00	2199.84	5.79	3.90	-3.34	2.00	
	2300.00	6.00	34.00	2299.45	13.01	8.78	-7.51	2.00	
	2400.00	8.00	34.00	2398.70	23.11	15.59	-13.34	2.00	
	2500.00	10.00	34.00	2497.47	36.08	24.34	-20.83	2.00	
	2600.00 2700.00	12.00 14.00	34.00 34.00	2595.62 2693.06	51.90 70.55	35.01 47.59	-29.96 -40.72	2.00 2.00	Hold Tangent
	2800.00	14.00	34.00	2790.08	90.60	61.11	-52.30	0.00	Hold rangent
	2900.00	14.00	34.00	2887.11	110.66	74.64	-63.87	0.00	
	3000.00	14.00	34.00	2984.14	130.72	88.17	-75.45	0.00	
	3100.00	14.00	34.00	3081.17	150.77	101.70	-87.03	0.00	
	3200.00 3300.00	14.00	34.00	3178.20	170.83	115.23	-98.60	0.00	
	3400.00	14.00 14.00	34.00 34.00	3275.23 3372.26	190.89 210.94	128.75 142.28	-110.18 -121.76	0.00 0.00	
	3500.00	14.00	34.00	3469.29	231.00	155.81	-133.33	0.00	
	3600.00	14.00	34.00	3566.32	251.05	169.34	-144.91	0.00	
	3700.00	14.00	34.00	3663.35	271.11	182.87	-156.49	0.00	
	3800.00	14.00	34.00	3760.38	291.17	196.39	-168.06	0.00	
	3900.00 3917.10	14.00 14.00	34.00 34.00	3857.41 3874.00	311.22 314.65	209.92 212.24	-179.64 -181.62	0.00 0.00	Delaware
	4000.00	14.00	34.00	3954.44	331.28	223.45	-191.21	0.00	Delaware
	4009.85	14.00	34.00	3964.00	333.26	224.78	-192.36	0.00	Cherry Canyon
	4100.00	14.00	34.00	4051.47	351.34	236.98	-202.79	0.00	
	4200.00	14.00	34.00	4148.50	371.39	250.51	-214.37	0.00	
	4300.00 4400.00	14.00 14.00	34.00 34.00	4245.53 4342.56	391.45 411.50	264.03 277.56	-225.94 -237.52	0.00 0.00	
	4500.00	14.00	34.00	4439.59	431.56	291.09	-249.10	0.00	
	4600.00	14.00	34.00	4536.62	451.62	304.62	-260.67	0.00	
	4700.00	14.00	34.00	4633.65	471.67	318.15	-272.25	0.00	
	4800.00	14.00	34.00	4730.68	491.73	331.68	-283.83	0.00	
	4900.00 4955.96	14.00 14.00	34.00 34.00	4827.71 4882.00	511.79 523.01	345.20 352.77	-295.40 -301.88	0.00 0.00	Brushy Canyon
	4955.90 5000.00	14.00	34.00 34.00	4882.00	523.01 531.84	358.73	-306.98	0.00	Starty Caryon
	5100.00	14.00	34.00	5021.77	551.90	372.26	-318.56	0.00	
	5200.00	14.00	34.00	5118.79	571.95	385.79	-330.13	0.00	
	5300.00	14.00	34.00	5215.82	592.01	399.32	-341.71	0.00	
	5400.00	14.00	34.00	5312.85	612.07	412.84	-353.29	0.00	
	5500.00 5600.00	14.00 14.00	34.00 34.00	5409.88 5506.91	632.12 652.18	426.37 439.90	-364.86 -376.44	0.00 0.00	
	5700.00	14.00	34.00 34.00	5603.94	672.23	459.90 453.43	-388.01	0.00	
	5800.00	14.00	34.00	5700.97	692.29	466.96	-399.59	0.00	
	5900.00	14.00	34.00	5798.00	712.35	480.48	-411.17	0.00	
	6000.00	14.00	34.00	5895.03	732.40	494.01	-422.74	0.00	
	6100.00 6200.00	14.00 14.00	34.00 34.00	5992.06 6089.09	752.46 772.52	507.54 521.07	-434.32 -445.90	0.00 0.00	

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evon		County: Wellbore:			DM 332H				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) 6300.00	(°) 14.00	(°) 34.00	(ft) 6186.12	(ft) 792.57	(ft) 534.60	(ft) -457.47	(°/100ft) 0.00	
	6400.00	14.00	34.00	6283.15	812.63	548.12	-469.05	0.00	
	6500.00	14.00	34.00	6380.18	832.68	561.65	-480.63	0.00	
	6600.00	14.00	34.00	6477.21	852.74	575.18	-492.20	0.00	
	6632.76	14.00	34.00	6509.00	859.31	579.61	-496.00	0.00	1st Bone Spring Lime
	6700.00	14.00	34.00	6574.24	872.80	588.71	-503.78	0.00	
	6755.37	14.00	34.00	6627.97	883.90	596.20	-510.19	0.00	Drop to Vertical
	6800.00 6900.00	13.11 11.11	34.00 34.00	6671.35 6769.12	892.57 909.96	602.05 613.78	-515.20 -525.23	2.00 2.00	
	7000.00	9.11	34.00	6867.56	924.51	623.59	-533.63	2.00	
	7100.00	7.11	34.00	6966.56	936.20	631.48	-540.38	2.00	
	7200.00	5.11	34.00	7065.99	945.02	637.42	-545.47	2.00	
	7300.00	3.11	34.00	7165.72	950.96	641.43	-548.90	2.00	
	7400.00	1.11	34.00	7265.65	954.01	643.49	-550.66	2.00	
	7455.37	0.00	34.00	7321.02	954.45	643.79	-550.91	2.00	Hold Vertical
	7500.00 7600.00	0.00 0.00	269.89 269.89	7365.65 7465.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	7600.00	0.00	269.89 269.89	7465.65 7565.65	954.45 954.45	643.79 643.79	-550.91	0.00	
	7755.35	0.00	269.89	7621.00	954.45	643.79	-550.91	0.00	Bone Spring 1st
	7800.00	0.00	269.89	7665.65	954.45	643.79	-550.91	0.00	
	7900.00	0.00	269.89	7765.65	954.45	643.79	-550.91	0.00	
	8000.00	0.00	269.89	7865.65	954.45	643.79	-550.91	0.00	
	8100.00	0.00	269.89	7965.65	954.45	643.79	-550.91	0.00	
	8200.00 8300.00	0.00 0.00	269.89 269.89	8065.65 8165.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	8400.00	0.00	269.89	8265.65	954.45 954.45	643.79 643.79	-550.91	0.00	
	8489.35	0.00	269.89	8355.00	954.45	643.79	-550.91	0.00	Bone Spring 2nd
	8500.00	0.00	269.89	8365.65	954.45	643.79	-550.91	0.00	
	8600.00	0.00	269.89	8465.65	954.45	643.79	-550.91	0.00	
	8700.00	0.00	269.89	8565.65	954.45	643.79	-550.91	0.00	
	8797.35	0.00	269.89	8663.00	954.45	643.79	-550.91	0.00	3rd Bone Spring Lime
	8800.00	0.00	269.89	8665.65	954.45	643.79	-550.91	0.00	
	8900.00 9000.00	0.00 0.00	269.89 269.89	8765.65 8865.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	9100.00	0.00	269.89	8965.65	954.45	643.79	-550.91	0.00	
	9200.00	0.00	269.89	9065.65	954.45	643.79	-550.91	0.00	
	9300.00	0.00	269.89	9165.65	954.45	643.79	-550.91	0.00	
	9400.00	0.00	269.89	9265.65	954.45	643.79	-550.91	0.00	
	9500.00	0.00	269.89	9365.65	954.45	643.79	-550.91	0.00	
	9537.35	0.00	269.89	9403.00	954.45	643.79	-550.91	0.00	Bone Spring 3rd
	9600.00 9700.00	0.00 0.00	269.89 269.89	9465.65 9565.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00 0.00	
	9800.00	0.00	269.89	9665.65	954.45	643.79	-550.91	0.00	
	9900.00	0.00	269.89	9765.65	954.45	643.79	-550.91	0.00	
	9964.35	0.00	269.89	9830.00	954.45	643.79	-550.91	0.00	Wolfcamp / Point of Penetration
	10000.00	0.00	269.89	9865.65	954.45	643.79	-550.91	0.00	
	10100.00	0.00	269.89	9965.65	954.45	643.79	-550.91	0.00	
	10200.00 10300.00	0.00	269.89	10065.65	954.45	643.79	-550.91	0.00 0.00	
	10300.00	0.00 0.00	269.89 269.89	10165.65 10265.65	954.45 954.45	643.79 643.79	-550.91 -550.91	0.00	
	10461.39	0.00	269.89	10205.05	954.45	643.79	-550.91	0.00	КОР
	10500.00	3.86	269.89	10365.62	954.45	642.49	-549.62	10.00	
	10600.00	13.86	269.89	10464.30	954.42	627.10	-534.30	10.00	
	10700.00	23.86	269.89	10558.81	954.36	594.82	-502.17	10.00	
	10800.00	33.86	269.89	10646.28	954.26	546.61	-454.19	10.00	
	10900.00	43.86	269.89	10724.05	954.14	483.95	-391.81	10.00	
	11000.00 11100.00	53.86 63.86	269.89 269.89	10789.75 10841.40	954.00 953.83	408.73 323.25	-316.95 -231.86	10.00 10.00	
	11200.00	73.86	269.89	10877.42	953.66	230.10	-139.14	10.00	
	11300.00	83.86	269.89	10896.71	953.47	132.11	-41.60	10.00	
	11361.39	90.00	269.89	10900.00	953.35	70.83	19.39	10.00	Landing Point
	11400.00	90.00	269.89	10900.00	953.28	32.22	57.82	0.00	
	11500.00	90.00	269.89	10900.00	953.08	-67.78	157.35	0.00	
	11600.00	90.00	269.89	10900.00	952.89	-167.78	256.89	0.00	
	11700.00 11800.00	90.00 90.00	269.89	10900.00	952.70 952.51	-267.78 -367.78	356.43	0.00 0.00	
	11800.00	90.00 90.00	269.89 269.89	10900.00 10900.00	952.51 952.32	-367.78 -467.78	455.96 555.50	0.00	
	12000.00	90.00	269.89	10900.00	952.52 952.12	-467.78	655.03	0.00	
	12100.00	90.00	269.89	10900.00	951.93	-667.78	754.57	0.00	
	12200.00	90.00	269.89	10900.00	951.74	-767.78	854.11	0.00	

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devon		Well: County:		36-35 FED CC	M 332H				Geodetic System: US State Plane 1983 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	DLS	Comment
-	(ft) 12300.00	(°) 90.00	(°) 269.89	(ft) 10900.00	(ft) 951.55	(ft) -867.78	(ft) 953.64	(°/100ft) 0.00	
	12400.00	90.00	269.89	10900.00	951.35	-967.78	1053.18	0.00	
	12500.00	90.00	269.89	10900.00	951.16	-1067.78	1152.71	0.00	
	12600.00	90.00	269.89	10900.00	950.97	-1167.78	1252.25 1351.79	0.00	
	12700.00 12800.00	90.00 90.00	269.89 269.89	10900.00 10900.00	950.78 950.58	-1267.78 -1367.78	1451.32	0.00 0.00	
	12900.00	90.00	269.89	10900.00	950.39	-1467.77	1550.86	0.00	
	13000.00	90.00	269.89	10900.00	950.20	-1567.77	1650.40	0.00	
	13100.00 13200.00	90.00 90.00	269.89 269.89	10900.00 10900.00	950.01 949.81	-1667.77 -1767.77	1749.93 1849.47	0.00 0.00	
	13200.00	90.00	269.89	10900.00	949.61	-1867.77	1949.00	0.00	
	13400.00	90.00	269.89	10900.00	949.43	-1967.77	2048.54	0.00	
	13500.00	90.00	269.89	10900.00	949.24	-2067.77	2148.08	0.00	
	13600.00 13700.00	90.00 90.00	269.89 269.89	10900.00 10900.00	949.04 948.85	-2167.77 -2267.77	2247.61 2347.15	0.00 0.00	
	13800.00	90.00	269.89	10900.00	948.66	-2367.77	2446.68	0.00	
	13900.00	90.00	269.89	10900.00	948.47	-2467.77	2546.22	0.00	
	14000.00 14100.00	90.00 90.00	269.89 269.89	10900.00 10900.00	948.28 948.08	-2567.77 -2667.77	2645.76 2745.29	0.00 0.00	
	14100.00 14200.00	90.00 90.00	269.89 269.89	10900.00	948.08 947.89	-2667.77	2745.29 2844.83	0.00	
	14300.00	90.00	269.89	10900.00	947.70	-2867.77	2944.36	0.00	
	14400.00	90.00	269.89	10900.00	947.51	-2967.77	3043.90	0.00	
	14500.00 14600.00	90.00 90.00	269.89 269.89	10900.00 10900.00	947.31 947.12	-3067.77 -3167.77	3143.44 3242.97	0.00 0.00	
	14700.00	90.00	269.89	10900.00	946.93	-3267.77	3342.51	0.00	
	14800.00	90.00	269.89	10900.00	946.74	-3367.77	3442.04	0.00	
	14900.00 15000.00	90.00 90.00	269.89 269.89	10900.00 10900.00	946.54 946.35	-3467.77 -3567.77	3541.58 3641.12	0.00 0.00	
	15100.00	90.00 90.00	269.89	10900.00	946.35 946.16	-3667.77	3740.65	0.00	
	15200.00	90.00	269.89	10900.01	945.97	-3767.77	3840.19	0.00	
	15300.00	90.00	269.89	10900.01	945.77	-3867.77	3939.72	0.00	
	15400.00 15500.00	90.00 90.00	269.89 269.89	10900.01 10900.01	945.58 945.39	-3967.77 -4067.77	4039.26 4138.80	0.00 0.00	
	15600.00	90.00	269.89	10900.01	945.20	-4167.77	4238.33	0.00	
	15700.00	90.00	269.89	10900.01	945.00	-4267.77	4337.87	0.00	
	15800.00 15900.00	90.00 90.00	269.89 269.89	10900.01 10900.01	944.81 944.62	-4367.77 -4467.77	4437.40 4536.94	0.00 0.00	
	16000.00	90.00	269.89	10900.01	944.02 944.43	-4407.77	4536.94	0.00	
	16100.00	90.00	269.89	10900.01	944.24	-4667.77	4736.01	0.00	
	16200.00	90.00	269.89	10900.01	944.04	-4767.77	4835.55	0.00	
	16300.00 16400.00	90.00 90.00	269.89 269.89	10900.01 10900.01	943.85 943.66	-4867.77 -4967.77	4935.08 5034.62	0.00 0.00	
	16500.00	90.00	269.89	10900.01	943.47	-5067.77	5134.16	0.00	
	16600.00	90.00	269.89	10900.01	943.27	-5167.77	5233.69	0.00	
	16700.00 16800.00	90.00 90.00	269.89 269.89	10900.01 10900.01	943.08 942.89	-5267.77 -5367.77	5333.23 5432.76	0.00 0.00	
	16900.00	90.00	269.89	10900.01	942.70	-5467.77	5532.30	0.00	
	17000.00	90.00	269.89	10900.01	942.50	-5567.77	5631.84	0.00	
	17100.00 17200.00	90.00 90.00	269.89 269.89	10900.01 10900.01	942.31 942.12	-5667.77 -5767.77	5731.37 5830.91	0.00 0.00	
	17200.00	90.00	269.89	10900.01	942.12	-5867.77	5930.44	0.00	
	17400.00	90.00	269.89	10900.01	941.73	-5967.77	6029.98	0.00	
	17500.00	90.00	269.89	10900.01	941.54	-6067.77	6129.52	0.00	
	17600.00 17700.00	90.00 90.00	269.89 269.89	10900.01 10900.01	941.35 941.16	-6167.77 -6267.77	6229.05 6328.59	0.00 0.00	
	17800.00	90.00	269.89	10900.01	940.96	-6367.77	6428.12	0.00	
	17900.00	90.00	269.89	10900.01	940.77	-6467.77	6527.66	0.00	
	18000.00 18100.00	90.00 90.00	269.89 269.89	10900.01 10900.01	940.58 940.39	-6567.77 -6667.77	6627.20 6726.73	0.00 0.00	
	18100.00	90.00	269.89	10900.01	940.39 940.20	-6767.77	6826.27	0.00	
	18300.00	90.00	269.89	10900.01	940.00	-6867.76	6925.80	0.00	
	18400.00	90.00	269.89	10900.01	939.81	-6967.76	7025.34	0.00	
	18500.00 18600.00	90.00 90.00	269.89 269.89	10900.01 10900.01	939.62 939.43	-7067.76 -7167.76	7124.88 7224.41	0.00 0.00	
	18600.00	90.00 90.00	269.89	10900.01	939.43 939.23	-7167.76	7224.41	0.00	
	18800.00	90.00	269.89	10900.01	939.04	-7367.76	7423.48	0.00	
	18900.00	90.00	269.89	10900.01	938.85	-7467.76	7523.02	0.00	
	19000.00 19100.00	90.00 90.00	269.89 269.89	10900.01 10900.01	938.66 938.46	-7567.76 -7667.76	7622.56 7722.09	0.00 0.00	
	19200.00	90.00	269.89	10900.01	938.27	-7767.76	7821.63	0.00	

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evon		County: Wellbore:			9M 332H				Ellipsoid:	US State Plane 198 North American D Clarke 1866 3001 - NM East (N	atum 1927
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment		
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)			_
	19300.00	90.00	269.89	10900.01	938.08	-7867.76	7921.16	0.00			
	19400.00	90.00	269.89	10900.01	937.89	-7967.76	8020.70	0.00			
	19500.00	90.00	269.89	10900.01	937.69	-8067.76	8120.24	0.00			
	19600.00	90.00	269.89	10900.01	937.50	-8167.76	8219.77	0.00			
	19700.00	90.00	269.89	10900.01	937.31	-8267.76	8319.31	0.00			
	19800.00	90.00	269.89	10900.01	937.12	-8367.76	8418.84	0.00			
	19900.00	90.00	269.89	10900.01	936.92	-8467.76	8518.38	0.00			
	20000.00	90.00	269.89	10900.01	936.73	-8567.76	8617.92	0.00			
	20100.00	90.00	269.89	10900.01	936.54	-8667.76	8717.45	0.00			
	20200.00	90.00	269.89	10900.01	936.35	-8767.76	8816.99	0.00			
	20300.00	90.00	269.89	10900.01	936.16	-8867.76	8916.52	0.00			
	20400.00	90.00	269.89	10900.01	935.96	-8967.76	9016.06	0.00			
	20500.00	90.00	269.89	10900.01	935.77	-9067.76	9115.60	0.00			
	20600.00	90.00	269.89	10900.01	935.58	-9167.76	9215.13	0.00			
	20700.00	90.00	269.89	10900.01	935.39	-9267.76	9314.67	0.00			
	20800.00	90.00	269.89	10900.01	935.19	-9367.76	9414.20	0.00			
	20900.00	90.00	269.89	10900.01	935.00	-9467.76	9513.74	0.00			
	21000.00	90.00	269.89	10900.01	934.81	-9567.76	9613.28	0.00			
	21100.00	90.00	269.89	10900.01	934.62	-9667.76	9712.81	0.00			
	21200.00	90.00	269.89	10900.01	934.42	-9767.76	9812.35	0.00			
	21215.24	90.00	269.89	10900.01	934.39	-9783.00	9827.52	0.00	exit		
	21295.24	90.00	269.89	10900.00	934.28	-9863.00	9907.15	0.00	BHL		

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#### Tambora 36-35 Fed Com 332H

20		surface csg in a	26	inch hole.		Design				Surface		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	94.00		k 55	btc	34.96	2.47	2.09	450	11	3.50	4.67	42,300
"B"				btc				0				0
	v	//8.4#/g mud, 30min Sfc Csg Test p	sig: 1,281	Tail Cmt	does not	circ to sfc.	Totals:	450				42,30
omparison o	of Proposed	to Minimum Required Cemer	t Volumes									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
26	1.5053	479	690	677	2	9.00	602	2M				2.50
20	1.0000	410	000	011	2	5.00	002	2.00				2.00
13 3/8		casing inside the	20			Design	Factors			Int 1		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	54.50		j 55	btc	8.46	1.12	1.46	1,850	3	2.76	1.88	100,82
"B"	04.00		] 55	DIO	0.40	1.12	1.40	0	U	2.70	1.00	0
Ъ							m · 1					
	v	/8.4#/g mud, 30min Sfc Csg Test p					Totals:	1,850				100,82
		The cement vo		ded to achieve a top of	0	ft from su	irface or a	450				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
17 1/2	0.6946	2285	3290	1431	130	10.50	990	2M				1.56
V Tool(s):							sum of sx	<u>Σ CuFt</u>				Σ%exce
y stage % :			#VALUE!				2285	3290				130
lass 'H' tail cm	t v   d > 1.20		#VALUE!				2200	0200				150
	it yiu > 1.20											
Tail cmt												
10 3/4		casing inside the	13 3/8	_		Design Fa				Int 2		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	45.50		j 55	btc scc	2.78	1.12	0.65	4,000	2	1.08	2.11	182,00
"B"								0				0
"C"								0				0
"D"								Ő				Ő
U		/a/	. 764				Tetele					
	v	/8.4#/g mud, 30min Sfc Csg Test p					Totals:	4,000				182,00
				ded to achieve a top of	0	ft from su		1850				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
12 1/4	0.1882	364	1190	844	41	9.00	3307	5M				0.50
		Setting Depths for D V Tool	s): 1951				sum of sx	<u>Σ CuFt</u>				<u>Σ%exces</u>
% exces	s cmt by sta		1				506	1655				96
lass 'C' tail cm		go										
		egment(s): A, b, C, D = 0.9, b, C	, u AII ≥ 0.70,									
8 5/8 Segment	#/ft	casing inside the Grade	10 3/4	Coupling	Joint	Design Collapse	Factors Burst	Length	B@s	Int 3 a-B	a-C	Weigh
"A"	32.00	Glade	n 110	• •	2.29	0.72	1.2	•	<u>ь</u> шя 1		a-c 1.21	325,12
	52.00		p 110	vam sprint fj	2.29	0.72	1.2	10,160	1	2.02	1.21	
"B"								0				0
	v	//8.4#/g mud, 30min Sfc Csg Test p					Totals:	10,160				325,12
		The cement vo	lume(s) are inter	ded to achieve a top of	3500	ft from su	urface or a	500				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
9 7/8	0.1261	765	1768	844	109	10.50	3547	5M				0.61
ass 'H' tail cm		100	Capitan Reef e		103	10.00	0047	UNI				0.01
Tail												
Tail cmt 5 1/2		casing inside the	8 5/8			Design	Factors			Prod 1		
Segment	#/ft	Grade	,-	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"		Glade	n 110									
	23.00		p 110	vam sprint fj	3.21	2.77	2.73	21,295	3	4.58	4.64	489,78
"B"								0				0
	v	/8.4#/g mud, 30min Sfc Csg Test p	sig: 2,398				Totals:	21,295				489,78
		The cement vo	lume(s) are inter	ded to achieve a top of	9660	ft from su	urface or a	500				overlap.
	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling						Min Dis
Hole		-	-			-						Hole-Cp
Hole		Cmt Sv	CIJET Cimt	CULET								
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt						
	Volume 0.1733	Cmt Sx 2214	4059	3735	% Excess	10.50						0.79

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#### Tambora 36-35 Fed Com 332H

20	su	rface csg in a	26	inch hole.		Design I	actors			Surface		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	94.00	ł	< 55	btc	34.96	2.47	2.09	450	11	3.50	4.67	42,300
"B"				btc				0				0
-	w/8.41	#/g mud, 30min Sfc Csg Test psig	r 1 281	Tail Cmt	does not	circ to sfc.	Totals:	450				42,300
omparison o		linimum Required Cement					rotaioi					,
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
26	1.5053	479	690	677	2	9.00	602	2M				2.50
			······	_ <i></i>	·_···							
13 3/8		ng inside the	20	_		<u>Design</u> I				Int 1		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	54.50		j 55	btc	8.46	1.12	1.46	1,850	3	2.76	1.88	100,82
"B"								0				0
	w/8.4#	#/g mud, 30min Sfc Csg Test psig	: 1,104				Totals:	1,850				100,82
		The cement volu	me(s) are inten	ded to achieve a top of	0	ft from su	rface or a	450				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
17 1/2	0.6946	2285	3290	1431	130	10.50	990	2M				1.56
D V Tool(s):	-						sum of sx	<u>Σ CuFt</u>				Σ%exces
by stage % :			#VALUE!				2285	3290				130
	it yiu > 1.20											
Tail cmt												
Tail cmt 10 3/4	casi	ng inside the	13 3/8			Design Fac				Int 2		
Tail cmt 10 3/4 Segment	casi #/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	
Tail cmt 10 3/4 Segment "A"	casi	Grade	<b>13 3/8</b> j 55	Coupling btc scc	Joint 2.78			4,000	<b>B@s</b> 2		<b>a-C</b> 2.11	182,00
10 3/4 Segment "A" "B"	casi #/ft	Grade				Collapse	Burst	4,000 <b>0</b>	<u> </u>	a-B	-	182,00 <b>0</b>
Tail cmt 10 3/4 Segment "A" "B" "C"	casi #/ft	Grade				Collapse	Burst	4,000 <b>0</b> 0	<u> </u>	a-B	-	182,00 <b>0</b> 0
Tail cmt 10 3/4 Segment "A" "B"	casi #/ft 45.50	Grade	j 55			Collapse	Burst 0.6	4,000 0 0 0	<u> </u>	a-B	-	182,00 0 0 0
Tail cmt 10 3/4 Segment "A" "B" "C"	casi #/ft 45.50	Grade	j 55 ;: 761	btc scc	2.78	Collapse 1.12	Burst 0.6 Totals:	4,000 0 0 4,000	<u> </u>	a-B	2.11	182,00 0 0 182,00
Tail cmt 10 3/4 Segment "A" "B" "C" "D"	casi #/ft 45.50 w/8.4	Grade t/g mud, 30min Sfc Csg Test psig The cement volu	j 55 : 761 me(s) are inten	btc scc	2.78	Collapse 1.12 ft from su	Burst 0.6 Totals: rface or a	4,000 0 0 4,000 1850	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap.
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole	casi #/ft 45.50 w/8.4/ Annular	Grade I/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage	j 55 ;: 761 me(s) are inten 1 Stage	btc scc ded to achieve a top of Min	2.78 0 1 Stage	Collapse 1.12 ft from su Drilling	Burst 0.6 Totals: rface or a Calc	4,000 0 0 4,000 1850 Req'd	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap. Min Dist
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size	casi #/ft 45.50 w/8.4/ Annular Volume	Grade #/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx	; 55 ; 761 me(s) are inten 1 Stage CuFt Cmt	btc scc ded to achieve a top of Min Cu Ft	2.78 0 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt	Burst 0.6 Totals: rface or a Calc MASP	4,000 0 0 4,000 1850 Req'd BOPE	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap. Min Dis Hole-Cpl
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882	Grade t/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364	; 761 me(s) are inten 1 Stage CuFt Cmt 1190	btc scc ded to achieve a top of Min	2.78 0 1 Stage	Collapse 1.12 ft from su Drilling	Burst 0.6 Totals: rface or a Calc MASP 3547	4,000 0 0 4,000 1850 Req'd BOPE 5M	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap. Min Dis Hole-Cpl 0.50
Tail cmt 10 3/4 Segment "A" "C" "C" "D" Hole Size 12 1/4	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 Se	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s)	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951	btc scc ded to achieve a top of Min Cu Ft	2.78 0 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap. Min Diss Hole-Cpl 0.50 Σ%exces
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces Class 'C' tail cm	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 Se s cmt by stage: t yld > 1.35	Grade t/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364	; 761 me(s) are inten 1 Stage CuFt Cmt 1190	btc scc ded to achieve a top of Min Cu Ft	2.78 0 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt	Burst 0.6 Totals: rface or a Calc MASP 3547	4,000 0 0 4,000 1850 Req'd BOPE 5M	<u> </u>	a-B	2.11	182,000 0 0 182,000 overlap. Min Dis Hole-Cpl 0.50
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces Class 'C' tail cm	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 Se s cmt by stage: t y/d > 1.35 t epit(s) for segment	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1	btc scc ded to achieve a top of Min Cu Ft	2.78 0 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt	<u> </u>	a-B	2.11	0 0 182,000 overlap. Min Dis Hole-Cpl 0.50 Σ%exces
Tail cmt 10 3/4 Segment "A" "C" "D" Hole Size 12 1/4 % exces Class 'C' tail cm purst rick of edu	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 Se s cmt by stage: t y/d > 1.35 t epit(s) for segment	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d	; 55 : 761 : me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 1	btc scc ded to achieve a top of Min Cu Ft	2.78 0 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt 9.00	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt	<u> </u>	<b>a-B</b> 1.01	2.11	182,000 0 0 182,000 overlap. Min Dis: Hole-Cpl 0.50 Σ%exces 96
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % excess Class 'C tail cm burst fract of ad	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 s cmt by stage: tyld > 1.35 retn(s) r0 segna casi	Grade t/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s). A, B, C, D = 0.9, B, C, O ing inside the Grade	; 55 : 761 : me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 1	btc scc ded to achieve a top of Min Cu Ft 844	0 1 Stage % Excess 41	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u>	Totals: rface or a Calc MASP 3547 sum of sx 506 Factors	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt 1655	2	<b>a-B</b> 1.01	2.11	182,00 0 0 182,00 overlap. Min Dis Hole-Cp 0.50 ∑%excess 96
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces class (c' tail cm % exces class (c' tail cm 5 1/2 Segment	casi #/ft 45.50 w/8.44 Annular Volume 0.1882 Se s cmt by stage: t y(d > 1.35 terr(s) for segure casi #/ft	Grade t/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s). A, B, C, D = 0.9, B, C, O ing inside the Grade	: 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 10 3/4	btc scc ded to achieve a top of Min Cu Ft 844 Coupling	2.78 0 1 Stage % Excess 41	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse	Totals: fface or a Calc MASP 3547 <u>sum of sx</u> 506 Calc <u>Sum of sx</u> 506	4,000 0 0 4,000 1850 Req'd BOPE 5M ΣCuFt 1655 Length	2 B@s	a-B 1.01 Prod 1 a-B	2.11 a-C	182,00 0 0 182,00 overlap. Min Dis Hole-Cp 0.50 Σ%exces 96
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces iass fr/2 did Segment "A"	casi #/ft 45.50 w/8.41 Annular Volume 0.1882 semt by stage: ty/d > 1.35 ment(s) for segment ty/d > 1.35 casi #/ft 23.00	Grade t/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s). A, B, C, D = 0.9, D, C, D ing inside the Grade	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 1 1951 1 10 3/4 5 110	btc scc ded to achieve a top of Min Cu Ft 844 Coupling	2.78 0 1 Stage % Excess 41	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse	Burst 0.6 Totals: rface or a Calc MASP 3547 3506 Sum of sx 506	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt 1655 Length 21,295 0	2 B@s	a-B 1.01 Prod 1 a-B	2.11 a-C	182,00 0 182,00 overlap. Min Dis Hole-Cp 0.50 Σ%exces 96 Weigh 489,78 0
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces class (r d ed % exces 5 1/2 Segment "A"	casi #/ft 45.50 w/8.41 Annular Volume 0.1882 semt by stage: ty/d > 1.35 ment(s) for segment ty/d > 1.35 casi #/ft 23.00	Grade #/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d ing inside the Grade #/g mud, 30min Sfc Csg Test psig	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 10 3/4 0 110 : 2,398	btc scc ded to achieve a top of Min Cu Ft 844 Coupling cdc htq	0 1 Stage % Excess 41 Joint 3.21	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse 2.77	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506 Factors Burst 2.73 Totals:	4,000 0 0 4,000 1850 Req'd BOPE 5M ΣCuEt 1655 Length 21,295 0 21,295	2 B@s	a-B 1.01 Prod 1 a-B	2.11 <b>a-C</b> 4.64	182,00 0 0 182,00 overlap. Min Dis Hole-Cp 0.50 Σ%exces 96 Weigh 489,78 0 489,78
Tail cmt 10 3/4 Segment "A" "C" "D" Hole Size 12 1/4 % exces Cass' C' tail cm bitst frac or au 5 1/2 Segment "A" "B"	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 Se scnt by stage: tyd>1.35 sent(s) for Segment (s) for Segment tyd>2.30 casi #/ft 23.00 w/8.4/	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d ing inside the Grade //g mud, 30min Sfc Csg Test psig The cement volu	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 1 1 3/4 5 110 ; 2,398 me(s) are inten	btc scc ded to achieve a top of Min Cu Ft 844 Coupling cdc htq ded to achieve a top of	2.78 0 1 Stage % Excess 41 Joint 3.21 3500	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse 2.77 ft from su	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt 1655 Length 21,295 0 21,295 500	2 B@s	a-B 1.01 Prod 1 a-B	2.11 <b>a-C</b> 4.64	182,00 0 182,00 overlap. Min Dis Hole-Cp 0.50 Σ%exces 96 Weight 489,78 overlap.
Tail cmt 10 3/4 Segment "A" "D" Hole Size 12 1/4 % exces Class 'C' tail cm borst rick ordu 5 1/2 Segment "A" "B" Hole	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 se somt by stage: tyld > 1.35 casi #/ft 23.00 w/8.4/ Annular	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d ing inside the Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage	; 55 761 me(s) are inten 1 Stage CuFt Cmt 1190 1 1951 1 1 3/4 0 110 ; 2,398 me(s) are inten 1 Stage	btc scc ded to achieve a top of Min Cu Ft 844 Coupling cdc htq ded to achieve a top of Min	2.78 0 1 Stage % Excess 41 Joint 3.21 3500 1 Stage	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse 2.77 ft from su Drilling	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506 Factors Burst 2.73 Totals: rface or a Calc	4,000 0 0 4,000 1850 Req'd BOPE 5M ∑CuFt 1655 0 Length 21,295 500 Req'd	2 B@s	a-B 1.01 Prod 1 a-B	2.11 <b>a-C</b> 4.64	182,00 0 0 182,00 overlap. Min Dis Hole-Cp 0.50 ∑%exces 96 Weigh 489,78 0 489,78 overlap. Min Dis
Tail cmt 10 3/4 Segment "A" "B" "C" "D" Hole Size 12 1/4 % exces Class C'tail cm % exces Sign C'tail cm % ex	casi #/ft 45.50 w/8.4/ Annular Volume 0.1882 s cmt by stage: tyld > 1.35 ment(s) rd > segun casi #/ft 23.00 w/8.4/ Annular Volume	Grade #/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d ing inside the Grade #/g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx	; 761 me(s) are inten 1 Stage CuFt Cmt 1190 : 1951 1 1 10 3/4 5 110 : 2,398 me(s) are inten 1 Stage CuFt Cmt	btc scc ded to achieve a top of Min Cu Ft 844 Coupling cdc htq ded to achieve a top of Min Cu Ft	0 1 Stage % Excess 41 Joint 3.21 3500 1 Stage % Excess	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse 2.77 ft from su Drilling Mud Wt	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506	4,000 0 0 4,000 1850 Req'd BOPE 5M Σ CuFt 1655 Length 21,295 0 21,295 500	2 B@s	a-B 1.01 Prod 1 a-B	2.11 <b>a-C</b> 4.64	182,00 0 0 182,00 overlap. Min Dis Hole-Cp 0.50 ∑%exces 96 Weigh 489,78 0 489,78 0 489,78 0 verlap. Min Dis Hole-Cp
Tail cmt 10 3/4 Segment "A" "C" "D" Hole Size 12 1/4 % exces Class 'C' tail cm burst rick orau S 1/2 Segment "A" "B" Hole	casi #/ft 45.50 w/8.44 Annular Volume 0.1882 se somt by stage: ty (id > 1.35 casi #/ft 23.00 w/8.44 Annular Volume 0.3669	Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage Cmt Sx 364 tting Depths for D V Tool(s) 209 ent(s): A, b, c, D = 0.9, b, c, d ing inside the Grade //g mud, 30min Sfc Csg Test psig The cement volu 1 Stage	; 55 761 me(s) are inten 1 Stage CuFt Cmt 1190 1 1951 1 1 3/4 0 110 ; 2,398 me(s) are inten 1 Stage	btc scc ded to achieve a top of Min Cu Ft 844 Coupling cdc htq ded to achieve a top of Min Cu Ft 6533	2.78 0 1 Stage % Excess 41 Joint 3.21 3500 1 Stage	Collapse 1.12 ft from su Drilling Mud Wt 9.00 <u>Design I</u> Collapse 2.77 ft from su Drilling	Burst 0.6 Totals: rface or a Calc MASP 3547 sum of sx 506 Factors Burst 2.73 Totals: rface or a Calc	4,000 0 0 4,000 1850 Req'd BOPE 5M ∑CuFt 1655 0 Length 21,295 500 Req'd	2 B@s	a-B 1.01 Prod 1 a-B	2.11 <b>a-C</b> 4.64	182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 182,0 0 0 2% exco 0 96 0 2% 96 0 2% 96 0 2% 96 0 2% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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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

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	413325
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	12/18/2024
ward.rikala	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	12/18/2024
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	12/18/2024

CONDITIONS

Action 413325

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