

Sundry Print Report
01/24/2023

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

COM

Well Name: BORA BORA 13-24 FED Well Location: T23S / R31E / SEC 12 / County or Parish/State:

SESE /

Well Number: 714H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM0404441 Unit or CA Name: Unit or CA Number:

US Well Number: 3001549355 Well Status: Approved Application for Operator: DEVON ENERGY

Permit to Drill PRODUCTION COMPANY LP

# **Notice of Intent**

**Sundry ID: 2712368** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/24/2023 Time Sundry Submitted: 11:50

Date proposed operation will begin: 01/24/2023

**Procedure Description:** Engineer Review only - DRILLING CHANGE: Devon Energy Production Co., L.P. (Devon) respectfully requests to change the drilling plan with surface casing changes, cement loss plan, and break test. Please see attachments.

# **NOI Attachments**

# **Procedure Description**

BORA\_BORA\_13\_24\_FED\_COM\_714H\_13.50in\_20230124114834.pdf

break\_test\_variance\_BOP\_20230124114835.pdf

HIGHER\_TORQUE\_VERSION\_CDS\_\_\_8.625in\_32ppf\_P110EC\_SPRINT\_FJ\_09.16.2022\_20230124114835.p

df

10.75\_45.50\_J55\_BTC\_SC\_BLP\_Devon\_20230124114834.pdf

Well Name: BORA BORA 13:424 FED

COM

Well Location: T23S / R31E / SEC 12 / SESE /

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Well Number: 714H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0404441

Unit or CA Name:

**Unit or CA Number:** 

**US Well Number:** 3001549355

Operator: DEVON ENERGY

Permit to Drill

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

Well Status: Approved Application for

Operator Electronic Signature: JENNY HARMS Signed on: JAN 24, 2023 11:50 AM

Name: DEVON ENERGY PRODUCTION COMPANY LP

**Title:** Regulatory Compliance Professional **Street Address:** 333 West Sheridan Avenue

City: Oklahoma City State: OK

Phone: (405) 552-6560

Email address: jennifer.harms@dvn.com

# **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

Email address:

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP

LEASE NO.: | NMNM0404441

**LOCATION:** Section 12, T.23 S., R.31 E., NMPM

**COUNTY:** Eddy County, New Mexico

WELL NAME & NO.: | Bora Bora 13-24 Fed Com 714H

**SURFACE HOLE FOOTAGE:** 50'/S & 1180'/E **BOTTOM HOLE FOOTAGE** 20'/S & 530'/E **ATS/API ID:** 3001549355

APD ID:

**Sundry ID: 2712368** 

WELL NAME & NO.: | Bora Bora 13-24 Fed Com 713H

**SURFACE HOLE FOOTAGE:** 340'/S & 2510'/E **BOTTOM HOLE FOOTAGE** 20'/S & 1850'/E **ATS/API ID:** 3001549352

APD ID:

**Sundry ID:** | 2711209

COA

H2S	• Yes	□ No	
Potash	None	Secretary	□ R-111-P
Cave/Karst Potential	• Low	☐ Medium	☐ High
Cave/Karst Potential	Critical		
Variance	None	☐ Flex Hose	Other
Wellhead	Conventional	☐ Multibowl	Both
Wellhead Variance	Diverter		
Other	□4 String	□Capitan Reef	□WIPP
Other	Fluid Filled	☐ Pilot Hole	Open Annulus
Cementing	☐ Contingency		☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit
Special Requirements	☑ Break Testing	☐ Offline	☐ Batch Sundry
Variance		Cementing	

# A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Sand Dunes**, **Triste Draw**, **Wildcat**, **Bone Spring** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes

equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### **B. CASING**

- 1. The 10-3/4 inch surface casing shall be set at approximately 1050 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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 **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

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

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

# **Option 2:**

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

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon at 6710' (535 sxs Class H/C+ additives).
- b. Second stage:

- Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 329 sxs Class C)
   Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In <u>Secretary Potash 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.

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

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

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

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

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least 500 feet into previous casing string.
     Operator shall provide method of verification.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
     Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

# C. PRESSURE CONTROL

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

2.

# Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. Annular which shall be tested to 5000 (5M) psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 inch intermediate casing shoe shall be 5000 (5M) psi.

# **Option 2:**

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

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

# D. SPECIAL REQUIREMENT (S)

# **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

# **BOPE Break Testing Variance**

- 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 14-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **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
    Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
  - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 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.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

# B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 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 OOGO2.III.A.2.i 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 Onshore Order 2 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 water basin (8 hours) or potash (24 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 Onshore Order No. 2.

#### 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.

LVO 1/24/2023

# BORA BORA 13-24 FED COM 714H

# 1. Geologic Formations

TVD of target	11995	Pilot hole depth	N/A
MD at TD:	22276	Deepest expected fresh water	

#### Basin

Dasiii		XX7 4 /3 /6* 1	
	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	1025		
Salt	1330		
Base of Salt	4280		
Bell Canyon	4525		
Cherry Canyon	5460		
Brushy Canyon	6710		
1st Bone Spring Lime	8430		
1st Bone Spring Sand	9515		
Bone Spring 2nd	10090		
3rd Bone Spring Lime	10600		
Bone Spring 3rd	11320		
Wolfcamp	11750		

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

2. Casing Program (Primary Design)

		Wt		Grade Conn		Casing Interval		Casing Interval	
Hole Size	Csg. Size	(PPF)	Grade			To (MD)	From (TVD)	To (TVD)	
13 1/2	10 3/4	45 1/2	J-55	ВТС	0	1050	0	1050	
9 7/8	8 5/8	32	P110	Sprint FJ	0	11320	0	11320	
7 7/8	5 1/2	20	P110	ВТС	0	22276	0	11995	

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt.	Yld (ft3/sack)	Slurry Description
Surface	422	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	329	Surf	9	3.27	Lead: Class C Cement + additives
Int 1	535	6710	13.2	1.44	Tail: Class H / C + additives
Production	117	9448	9	3.27	Lead: Class H /C + additives
Production	1433	11448	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 8-5/8''intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

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

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Ty	ype	<b>✓</b>	Tested to:					
			Anı	nular	X	50% of rated working pressure					
Int 1	13-58"	5M	Blind	d Ram	X						
III I	15-50	J1V1	Pipe	Ram		5M					
			Doub	le Ram	X	JIVI					
			Other*								
	13-5/8"		Annular (5M)		X	50% of rated working pressure					
Production		5M	Blind Ram		X						
Troduction		J1V1	Pipe Ram			5M					
									Double Ram	le Ram	X
			Other*								
			Annular (5M)								
			Blind Ram								
			Pipe Ram								
			Double Ram								
			Other*								
	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					schematic.					
Y A variance is requested to r	A variance is requested to run a 5 M annular on a 10M system										

5. Mud Program (Three String Design)

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

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

6. Logging and Testing Procedures

- 1					
Logging, (	Logging, Coring and Testing				
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the				
X	Completion Report and shumitted 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.				

<b>Additional</b>	logs planned	Interval	
	Resistivity	Int. shoe to KOP	
	Density	Int. shoe to KOP	
X	CBL	Production casing	
X	Mud log	Intermediate shoe to TD	
	PEX		

#### BORA BORA 13-24 FED COM 714H

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	6549
Abnormal temperature	No

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

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

N H2S is present
Y H2S plan attached.

# 8. Other facets of operation

Is this a walking operation? Potentially

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

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

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (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	8
X	Directional Plan

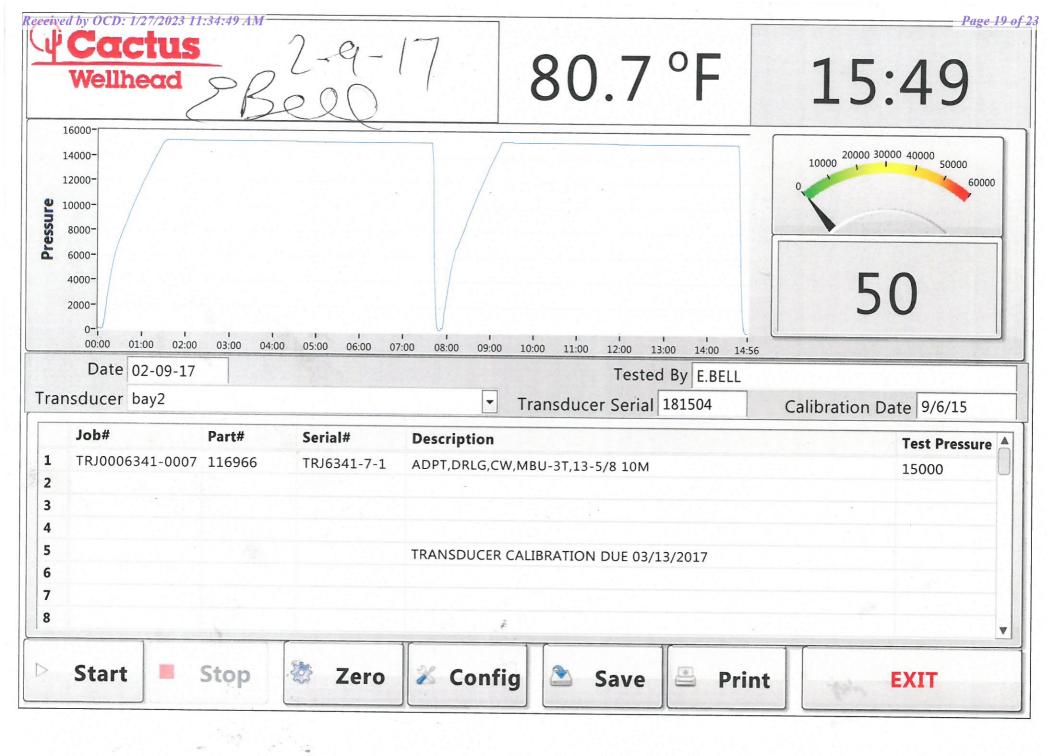
Other, describe

# Section 2 - Blowout Preventer Testing Procedure

Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. This test will include the Top Pipe Rams, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and Shell of the 10M BOPE to 5M for 10 minutes. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections and no deeper than the Bone Springs Formation where 5M BOP tests are required. The initial BOP test will follow OOGO2.III.A.2.i, and subsequent tests following a skid will only test connections that are broken. The annular preventer will be tested to 100% working pressure. This variance will meet or exceed OOGO2.III.A.2.i per the following: Devon Energy will perform a full BOP test per OOGO2.III.A.2.i before drilling out of the intermediate casing string(s) and starting the production hole, before starting any hole section that requires a 10M test, before the expiration of the allotted 14-days for 5M intermediate batch drilling or when the drilling rig is fully mobilized to a new well pad, whichever is sooner. We will utilize a 200' TVD tolerance between intermediate shoes as the cutoff for a full BOP test. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. Break test will be a 14 day interval and not a 30 day full BOPE test interval. If in the event break testing is not utilized, then a full BOPE test would be conducted.

- 1. Well Control Response:
- 1. Primary barrier remains fluid
- 2. In the event of an influx due to being underbalanced and after a realized gain or flow, the order of closing BOPE is as follows:
  - a) Annular first
  - b) If annular were to not hold, Upper pipe rams second (which were tested on the skid BOP test)
  - c) If the Upper Pipe Rams were to not hold, Lower Pipe Rams would be third





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

Issued on: 16 Sep. 2022 by Logan Van Gorp



# **Connection Data Sheet**

## HIGHER TORQUE VERSION

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® SPRINT-FJ
	Plain End: 31.13				

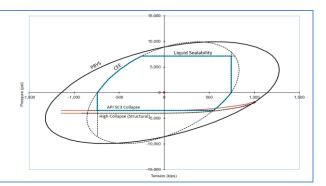
PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	Hig	h Yield
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

CONNECTION PROP	ERTIES	
Connection Type	Semi-Premium Int	egral Flush
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	5.978	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. Structural Bending	41	°/100ft
Max. Bending with Sealability	10	°/100ft

TORQUE VALUI	ES	
Min. Make-up torque	23,000	ft.lb
Opt. Make-up torque	25,500	ft.lb
Max. Make-up torque	28,000	ft.lb
Max. Torque with Sealability (MTS)	48,000	ft.lb

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.



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



<sup>\* 87.5%</sup> RBW

12-23-31-O Sundry ID 2712368 Bora Bora 13-24 Fed Com 714H Eddy NM0404441 DEVON ENERGY PRODUCTION COMPANY LP 13-22d 1-24-2023 LV.xlsm

#### Bora Bora 13-24 Fed Com 714H

10 3/4	su	rface csg in a	13 1/2	inch hole.		<u>Design</u>	Factors			Surfac	e	
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	а-В	a-C	Weigh
"A"	45.50		j 55	btc	14.97	4.26	0.58	1,050	8	0.97	8.04	47,775
"B"				btc				0				0
	w/8.4#	g mud, 30min Sfc Csg Test	t psig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	1,050				47,775
Comparison o	f Proposed to M	Minimum Required Cem	nent 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
13 1/2	0.3637	422	608	382	59	9.00	3684	5M				0.88
Burst Frac Grad	dient(s) for Segm	nent(s) A, B = , b All >	0.70, OK.		Site plat (pip	e racks S or E)	as per O.O.1.	.III.D.4.i. not	found.			
8 5/8	casi	ing incide the	10.2/4			Design	Factors		_	Int 1		
Segment	#/ft	ing inside the Grade	10 3/4	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	32.00	Graue	p 110	vam sprint fi	2.05	0.65	1.09	11,320	1 D@S	1.83	1.09	362,24
"B"	32.00		ртто	vain spinit ij	2.03	0.03	1.05	0		1.03	1.05	0
В	u/Q /#	g mud, 30min Sfc Csg Test	t psig: 65				Totals:	11,320				362,24
	W/ 0.4#	-		nded to achieve a top of	0	ft from su		1050				overlap.
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
9 7/8	0.1261	535	770	1436	-46	10.50	3904	5M				0.61
D V Tool(s):			6710			10.00	sum of sx	Σ CuFt				Σ%exces
by stage % :		32	26				864	1846				29
Class 'C' tail cm	nt yld > 1.35											
Tail cmt												
5 1/2	casi	ing inside the	8 5/8			Design Fa	ctors		-	Prod	1	
Segment	#/ft	Grade	0 3,0	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	20.00	0.000	p 110	btc	2.67	1.69	1.93	22.276	2	3.24	2.84	_
"B"	20.00		P	2.0	2.07			0	_	0.21	2.0.	0
	w/8.4#	g mud, 30min Sfc Csg Test	t psig: 2.639				Totals:	22,276				445,52
	, 0	-		nded to achieve a top of	10820	ft from su		500				overlap.
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
7 7/8	0.1733	1550	2446	1987	23	10.50		-0				0.91
Class 'C' tail cm	nt yld > 1.35					10100						
#N/A												
0			5 1/2			<u>Design</u>				Choose C		
Segment	#/ft	Grade		Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"				0.00				0				0
"B"				0.00				0				0
	w/8.4#	/g mud, 30min Sfc Csg Test					Totals:	0				.0
				this csg, TOC intended	#N/A	ft from su		#N/A				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dis

<b>-</b> 0			5 1/2			Design l	Factors		<c< th=""><th>hoose (</th><th>Casing&gt;</th><th></th></c<>	hoose (	Casing>	
Segment	#/ft	Grade		Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"				0.00				0				0
"B"				0.00				0				0
	w/8.4#/	g mud, 30min Sfc Csg Test p	sig:				Totals:	0				0
ĺ		Cmt vol ca	Ic below includes th	is csg, TOC intended	#N/A	ft from su	rface or a	#N/A				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
0		#N/A	#N/A	0	#N/A							
#N/A			Capitan Reef est	top XXXX.								
!												

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CONDITIONS

Action 180340

# **CONDITIONS**

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	180340
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	1/30/2023