

Well Name: RODNEY ROBINSON FED COM	Well Location: T23S / R33E / SEC 7 / SWSE / 32.3130334 / -103.6085229	County or Parish/State: LEA / NM
Well Number: 123H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM138876	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547348	Well Status: Drilling Well	Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Sundry ID: 1516919

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 03/01/2021	Time Sundry Submitted: 03:40
Date proposed operation will begin: 08/31/2021	

Procedure Description: BLM Bond No. NMB001079 Surety Bond No. RLB0015172 Matador respectfully requests the option to amend the casing, cementing and mud program. Please find supporting documentation attached.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- Rodney\_Robinson\_Fed\_Com\_123H\_Casing\_Specs\_7.625in\_29.7lb\_VAM\_HTF\_NR\_20210301153545.pdf
- Rodney\_Robinson\_Fed\_Com\_123H\_Drill\_Plan\_20210301153545.pdf
- Rodney\_Robinson\_Fed\_Com\_123H\_Casing\_Specs\_5.5in\_20lb\_Hunting\_TLW\_SC\_20210301153545.pdf
- Rodney\_Robinson\_Fed\_Com\_123H\_Casing\_Table\_Spec\_20210301153545.pdf

Received by OCD: 9/27/2021 2:53:22 PM

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Conditions of Approval

Additional Reviews  
Rodney\_Robinson\_Fed\_Com\_123H\_COA\_20210927054243.pdf

Operator Certification

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 submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: NICKY FITZGERALD	Signed on: MAR 01, 2021 03:38 PM
Name: MATADOR PRODUCTION COMPANY	
Title: Regulatory	
Street Address: 5400 LBJ FREEWAY STE 1500	
City: DALLAS	State: TX
Phone: (972) 371-5448	
Email address: nicky.fitzgerald@matadorresources.com	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone: (972)371-5448		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 09/27/2021
Signature: Chris Walls	

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>MATADOR</b>
<b>LEASE NO.:</b>	<b>NMNM138876</b>
<b>LOCATION:</b>	Section 7, T.23 S., R.33 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico

<b>WELL NAME &amp; NO.:</b>	Rodney Robinson Fed Com 123H
<b>SURFACE HOLE FOOTAGE:</b>	403'/N & 1682'/E
<b>BOTTOM HOLE FOOTAGE:</b>	60'/N & 1834'/W

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

### 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 Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1385** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) 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 **8**

**hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Intermediate casing must be kept 1/3<sup>rd</sup> fluid filled to meet BLM minimum collapse requirement.**

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is: Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
  - 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 or potash.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 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.
- 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.

## **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 County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
393-3612

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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive

strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 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 when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. 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.

**ZS092721**

**Rodney Robinson Fed Com 123H**  
**SHL: 403' FSL & 1682' FEL Section 7**  
**BHL: 60' FNL & 1834' FEL Section 6**  
**Township/Range: 23S 33E**  
**Elevation Above Sea Level: 3,717'**

### **Drilling Operation Plan**

Proposed Drilling Depth: 21000' MD / 10752' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3121641237 N / -103.6093449160 W  
 TD Lat/Long (NAD83): 32.3408941082 N / -103.6089645569 W

### **1. Estimated Tops**

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	1,262	1,262	513	Anhydrite	Barren
Salado (Top of Salt)	1,775	1,775	1,650	Salt	Barren
Castile	3,425	3,425	1,573	Salt	Barren
Lamar (Base of Salt)	4,998	4,998	38	Dolomite	Barren
Bell Canyon	5,036	5,036	846	Sandstone	Oil/Natural Gas
Cherry Canyon	5,882	5,882	1,336	Sandstone	Oil/Natural Gas
Brushy Canyon	7,218	7,218	1,581	Sandstone	Oil/Natural Gas
Bone Spring Lime	8,799	8,799	1,154	Limestone	Oil/Natural Gas
1st Bone Spring Sand	9,953	9,953	272	Sandstone	Oil/Natural Gas
<b>KOP</b>	<b>10,209</b>	<b>10,179</b>		<b>Sandstone</b>	<b>Oil/Natural Gas</b>
2nd Bone Spring Carbonate	10,255	10,225	426	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	10,765	10,651		Sandstone	Oil/Natural Gas
<b>TD</b>	<b>21,000</b>	<b>10,752</b>		<b>Sandstone</b>	<b>Oil/Natural Gas</b>

### **2. Notable Zones**

2nd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 78'.

### **3. Pressure Control**

#### Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

#### Testing Procedure

**Drill Plan**

BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 1287	0 - 1287	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10109	9500 - 10079	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	8.75	0 - 21000	0 - 10752	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for review
- Request option to deepen Intermediate 1 set depth into curve, no changes in pipe weight or grade is necessary.

Variance Request

**Drill Plan**

Matador request a variance to wave the centralizer requirement for the 7-5/8" casing and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate 1 hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	640	1.72	1101	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	987	C	5% NaCl + LCM
Intermediate 1 DV ~5,100'	Tail	490	3.68	1815	10.3	35%	0	A/C	Stage 2: Tuned light blend
	Lead	320	3.68	1162	10.3	35%	5100	A/C	Stage 1: Fluid Loss +
	Tail	110	1.46	156	13.2	35%	9109	A/C	Stage 1: Fluid Loss +
Intermediate 1 Alternate Design-	Lead	720	3.68	2641	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9109	A/C	Stage 1: Fluid Loss +
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency:
Production	Tail	2200	1.43	1142	13.2	25%	9909	H	Fluid Loss + Dispersant + Retarder

**5. Mud Program**

An electronic Pason mud monitoring system complying with Onshore Order 2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 1287	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Bine Emulsion	1287 - 10109	8.7 - 9.4	28-30	NC
Production	8.75	OBM/Cut Brine	10109 - 21000	8.6 - 9.4	28-30	<20

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 2890 psi. Expected bottom hole temperature is 160° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H<sub>2</sub>S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of a "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have a H<sub>2</sub>S safety package on all wells, attached is a "H<sub>2</sub>S Drilling Operations Plan." Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of the equipment being used.



# TEC-LOCK WEDGE

5.500" 20 LB/FT (.361" Wall) with 5.875" SPECIAL CLEARANCE OD  
BEN P110 CY

## Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

## Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in <sup>2</sup>
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

## Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

**Notes** Operational Torque is equivalent to the Maximum Make-Up Torque

Generated on Sep 03, 2019



Issued on: 12 Janv. 2017 by T. DELBOSCO

VRCC 16-1177 Rev02 for Houston Field Service

**DATA ARE INFORMATIVE ONLY.  
BASED ON SI\_PD-101836 P&B**

**VAM® HTF-NR™**  
Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift	Connection
7 5/8 in.	29.70 lb/ft	0.375 in.	P110 EC	6.750 in.	VAM® HTF NR

PIPE PROPERTIES	
Nominal OD	7.625 in.
Nominal ID	6.875 in.
Nominal Cross Section Area	8.541 sqin.
Grade Type	Enhanced API
Min. Yield Strength	125 ksi
Max. Yield Strength	140 ksi
Min. Ultimate Tensile Strength	135 ksi
Tensile Yield Strength	1 068 klb
Internal Yield Pressure	10 760 psi
Collapse pressure	7 360 psi

CONNECTION PROPERTIES	
Connection Type	Premium Integral Flush
Connection OD (nom)	7.701 in.
Connection ID (nom)	6.782 in.
Make-Up Loss	4.657 in.
Critical Cross Section	4.971 sqin.
Tension Efficiency	58 % of pipe
Compression Efficiency	72.7 % of pipe
Compression Efficiency with Sealability	34.8 % of pipe
Internal Pressure Efficiency	100 % of pipe
External Pressure Efficiency	100 % of pipe

CONNECTION PERFORMANCES	
Tensile Yield Strength	619 klb
Compression Resistance	778 klb
Compression with Sealability	372 klb
Internal Yield Pressure	10 760 psi
External Pressure Resistance	7 360 psi
Max. Bending	44 °/100ft
Max. Bending with Sealability	17 °/100ft

TORQUE VALUES	
Min. Make-up torque	9 600 ft.lb
Opti. Make-up torque	11 300 ft.lb
Max. Make-up torque	13 000 ft.lb
Max. Torque with Sealability	58 500 ft.lb
Max. Torsional Value	73 000 ft.lb

VAM® HTF™ (High Torque Flush) is a flush OD integral connection providing maximum clearance along with torque strength for challenging applications such as extended reach and slim hole wells, drilling liner / casing, liner rotation to achieve better cementation in highly deviated and critical High Pressure / High Temperature wells.

Looking ahead on the outcoming testing industry standards, VAM® decided to create an upgraded design and launch on the market the VAM® HTF-NR as the new standard version of VAM® extreme high torque flush connection. The VAM® HTF-NR has extensive tests as per API RP 5C5:2015 CAL II which include the gas sealability having load points with bending, internal pressure and high temperature at 135°C.

**Do you need help on this product? - Remember no one knows VAM® like VAM®**

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**Over 180 VAM® Specialists available worldwide 24/7 for Rig Site Assistance**

Other Connection Data Sheets are available at [www.vamservices.com](http://www.vamservices.com)



**Vallourec Group**



## Casing Table Specification Sheet

Rodney Robinson Fed Com 123H  
SHL: 403' FSL & 1682' FEL Section 7  
BHL: 60' FNL & 1834' FEL Section 6  
Township/Range: 23S 33E  
Elevation Above Sea Level: 3,717'

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 1287	0 - 1287	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10109	9500 - 10079	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	8.75	0 - 21000	0 - 10752	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

**Rodney Robinson Fed Com 123H**  
**SHL: 403' FSL & 1682' FEL Section 7**  
**BHL: 60' FNL & 1834' FEL Section 6**  
**Township/Range: 23S 33E**  
**Elevation Above Sea Level: 3,717'**

### **Drilling Operation Plan**

Proposed Drilling Depth: 21000' MD / 10752' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3121641237 N / -103.6093449160 W

TD Lat/Long (NAD83): 32.3408941082 N / -103.6089645569 W

### **1. Estimated Tops**

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	1,262	1,262	513	Anhydrite	Barren
Salado (Top of Salt)	1,775	1,775	1,650	Salt	Barren
Castile	3,425	3,425	1,573	Salt	Barren
Lamar (Base of Salt)	4,998	4,998	38	Dolomite	Barren
Bell Canyon	5,036	5,036	846	Sandstone	Oil/Natural Gas
Cherry Canyon	5,882	5,882	1,336	Sandstone	Oil/Natural Gas
Brushy Canyon	7,218	7,218	1,581	Sandstone	Oil/Natural Gas
Bone Spring Lime	8,799	8,799	1,154	Limestone	Oil/Natural Gas
1st Bone Spring Sand	9,953	9,953	272	Sandstone	Oil/Natural Gas
<b>KOP</b>	<b>10,209</b>	<b>10,179</b>		<b>Sandstone</b>	<b>Oil/Natural Gas</b>
2nd Bone Spring Carbonate	10,255	10,225	426	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	10,765	10,651		Sandstone	Oil/Natural Gas
<b>TD</b>	<b>21,000</b>	<b>10,752</b>		<b>Sandstone</b>	<b>Oil/Natural Gas</b>

### **2. Notable Zones**

2nd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 78'.

### **3. Pressure Control**

#### Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

#### Testing Procedure

**Drill Plan**

BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 1287	0 - 1287	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10109	9500 - 10079	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	8.75	0 - 21000	0 - 10752	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for review
- Request option to deepen Intermediate 1 set depth into curve, no changes in pipe weight or grade is necessary.

Variance Request

**Drill Plan**

Matador request a variance to wave the centralizer requirement for the 7-5/8" casing and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate 1 hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	640	1.72	1101	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	987	C	5% NaCl + LCM
Intermediate 1 DV ~5,100'	Tail	490	3.68	1815	10.3	35%	0	A/C	Stage 2: Tuned light blend
	Lead	320	3.68	1162	10.3	35%	5100	A/C	Stage 1: Fluid Loss + Dispersant
	Tail	110	1.46	156	13.2	35%	9109	A/C	Stage 1: Fluid Loss +
Intermediate 1 Alternate Design-	Lead	720	3.68	2641	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9109	A/C	Stage 1: Fluid Loss +
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Class
Production	Tail	800	1.43	1142	13.2	10%	9909	H	Fluid Loss + Dispersant + Retarder

**5. Mud Program**

An electronic Pason mud monitoring system complying with Onshore Order 2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 1287	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Bine Emulsion	1287 - 10109	8.7 - 9.4	28-30	NC
Production	8.75	OBM/Cut Brine	10109 - 21000	8.6 - 9.4	28-30	<20

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

**7. Down Hole Conditions**

## **Drill Plan**

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 2890 psi. Expected bottom hole temperature is 160° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H<sub>2</sub>S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of a "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have a H<sub>2</sub>S safety package on all wells, attached is a "H<sub>2</sub>S Drilling Operations Plan." Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of the equipment being used.

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**District III**

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Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 52222

**CONDITIONS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 52222
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
pkautz	None	9/28/2021