

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

Sundry Print Reports
04/10/2024

Well Name: CORRAL BLUFF 11\_14

FEDERAL COM

Well Location: T25S / R29E / SEC 11 /

NENE /

Well Number: 25H Type of Well: OIL WELL

County or Parish/State:

**Allottee or Tribe Name:** 

Lease Number: NMNM15303

Unit or CA Name:

**Unit or CA Number:** 

**US Well Number: 3001548884** 

Well Status: Approved Application for

Permit to Drill

Operator: OXY USA INCORPORATED

Type of Action: APD Change

### **Notice of Intent**

**Sundry ID: 2764868** 

Type of Submission: Notice of Intent

Date Sundry Submitted: 12/06/2023 Time Sundry Submitted: 02:07

Date proposed operation will begin: 10/09/2024

**Procedure Description:** PLEASE SEE ATTACHED OXY APD CHANGE SUNDRY LIST THAT HIGHLIGHTS CHANGES AND ATTACHEMENTS. GENERAL CHANGE DOCUMENTS ARE COMBINED INTO 1 PDF FILE AND WELL SPECIFIC DOCUMENTS ARE INDIVIDUAL ATTACHEMENTS.

### **NOI Attachments**

### **Procedure Description**

CORRALBLUFF11\_14FEDCOM25H\_GENERAL\_DOCS\_20231206140714.pdf

OXY\_APD\_CHANGE\_SUNDRY\_LIST\_10.12.23\_20231206140710.pdf

CorralBluff11\_14FedCom25H\_DirectPlan\_20231206140703.pdf

CORRALBLUFF11\_14FEDCOM25H\_TNSWedge461\_5.500in\_20.00ppf\_P110CY\_20231206140703.pdf

CORRALBLUFF11\_14FEDCOM25H\_DrillPlan\_20231206140704.pdf

CORRALBLUFF11\_14FEDCOM25H\_C102\_20231206140705.pdf

 $CORRALBLUFF 11\_14 FEDCOM 25 H\_TNSWedge 463\_7.827 in\_39.30 ppf\_P110S\_20231206140703.pdf$ 

eceived by OCD: 4/10/2024 12:49:21 PM Well Name: CORRAL BLUFF 11\_14

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Page 2 of

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INCORPORATED

### **Conditions of Approval**

### Additional

FALCON DESIGN CORRAL BLUFF 11 14 FED COM 25H SUNDRY COA 20240401105930.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: STEPHEN JANACEK Signed on: DEC 06, 2023 02:07 PM

Name: OXY USA INCORPORATED

Title: Regulatory Engineer

Street Address: 5 Greenway Plaza, Suite 110

City: Houston State: TX

**Phone:** (713) 497-2417

Email address: stephen\_janacek@oxy.com

### **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

Email address:

### **BLM Point of Contact**

**BLM POC Name:** KEITH P IMMATTY

**BLM POC Phone:** 5759884722

Disposition: Approved

Signature: KEITH IMMATTY

**BLM POC Title:** ENGINEER

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition Date: 04/01/2024

Form 3160-5 (June 2019)

### UNITED STATES DEPARTMENT OF THE INTERIOR

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

5. Lease Serial	l No
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BURI	EAU OF LAND MANAGEMENT		3. Lease Schai No.	
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Jse Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee o	r Tribe Name
abandoned wen.	ose romi oroc-o (Ar b) for suc	лі ріорозаіз.	7 IfII::: + -f.C.A./A	
	<b>TRIPLICATE</b> - Other instructions on page	9 2	/. If Unit of CA/Agree	ement, Name and/or No.
1. Type of Well			8. Well Name and No.	
Oil well Gas well Other				
2. Name of Operator			9. API Well No.	
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or I	Exploratory Area
4. Location of Well (Footage, Sec., T.,R	.,M., or Survey Description)		11. Country or Parish,	State
12. CHE	CK THE APPROPRIATE BOX(ES) TO INC	DICATE NATURE OF NO	TICE, REPORT OR OTH	HER DATA
TYPE OF SUBMISSION		TYPE OF A	CTION	
Notice of Intent	Acidize Deep Alter Casing Hydra	=	oduction (Start/Resume)	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair New	Construction Re	ecomplete	Other
Subsequent Report	Change Plans Plug	and Abandon Te	mporarily Abandon	
Final Abandonment Notice	Convert to Injection Plug	Back W	ater Disposal	
completed. Final Abandonment Not is ready for final inspection.)	ns. If the operation results in a multiple comices must be filed only after all requirements			
4. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)	Title		
Signature		Date		
	THE SPACE FOR FEDE	ERAL OR STATE C	FICE USE	
Approved by			I	
rr		Title	I	Date
	ned. Approval of this notice does not warrant quitable title to those rights in the subject lead duct operations thereon.		1	
	B U.S.C Section 1212, make it a crime for an		villfully to make to any de	partment or agency of the United States

(Instructions on page 2)

### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

### **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-4.

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

(Form 3160-5, page 2)

### **Additional Information**

### **Location of Well**

0. SHL: NENE / 934 FNL / 1164 FEL / TWSP: 25S / RANGE: 29E / SECTION: 11 / LAT: 32.14938 / LONG: -103.950357 ( TVD: 0 feet, MD: 0 feet ) PPP: NENE / 100 FNL / 1240 FEL / TWSP: 25S / RANGE: 29E / SECTION: 11 / LAT: 32.151673 / LONG: -103.950615 ( TVD: 8900 feet, MD: 9100 feet ) PPP: NENE / 5 FSL / 1251 FEL / TWSP: 25S / RANGE: 29E / SECTION: 14 / LAT: 32.137353 / LONG: -103.950588 ( TVD: 8997 feet, MD: 14306 feet ) BHL: SESE / 20 FSL / 1240 FEL / TWSP: 25S / RANGE: 29E / SECTION: 14 / LAT: 32.122806 / LONG: -103.950561 ( TVD: 9000 feet, MD: 19598 feet )

### PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:
WELL NAME & NO.:
LOCATION:
CORRAL BLUFF 11-14 FED COM / 25H
Section 11, T.25 S., R.29 E.
COUNTY:
Eddy County, New Mexico

### ALL PREVIOUS COAs STILL APPLY

H2S	• Yes	O No	
Potash	None	O Secretary	O R-111-P
Cave/Karst Potential	O Low	• Medium	O High
Cave/Karst Potential	O Critical		
Variance	O None	• Flex Hose	Other Other
Wellhead	Conventional	<ul><li>Multibowl</li></ul>	O Both
3Wellhead Variance	O Diverter		
Other	□4 String	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency	☐ EchoMeter	☑ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements	✓ Break Testing	✓ Offline	✓ Casing
Variance		Cementing	Clearance

COA

### A. CASING

### **COA** for the proposed Falcon Design (2-string + production liner):

- Tie Back of the liner should be a minimum of 200' into the previous casing
- Surface and Intermediate cement to surface should be verified visually. If cement fallback is suspected, an Echo-meter can be run to verify cement top in the intermediate and a temp log may be run in the surface interval. CBL should be run if confidence is lacking in the surface or intermediate cement job. The proposed falcon design (2-string + production liner) is only approved when surface and intermediate sections are cemented to surface. Operator to revert to 3-string design when surface or intermediate cementing is of poor quality or not verified to surface
- Region 2 NACE certified intermediate casing must be used
- A third-party verification (such as thread rep or torque turn) must be conducted to ensure the connection makeups are to spec for the intermediate casing string exposed to frac pressures
- Corrosion inhibitors must be used in areas with corrosive production fluids

- Operator should actively monitor annulus during the completion phase. Wells should be monitored in a manner capable of identifying a casing leak or liner top packer leak, within an acceptable time frame while on production. Remedial work may be required to restore intermediate casing integrity or liner top packer integrity in a failure event
- BLM should be notified if cement is not verified to the liner top
- Surface location must NOT be located within SOPA, KPLA, Capitan Reef or High Cave Karst

### **Alternate Casing Design A:**

- 1. The **10-3/4** inch surface casing shall be set at approximately **705** feet (a minimum of 70 feet (Eddy 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.
- 2. The **7.827** inch intermediate casing shall be set at approximately **8,807** feet. The minimum required fill of cement behind the **7.827** inch intermediate casing is:

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

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

### **Option 2 (Bradenhead):**

Operator has proposed to pump down 7.827" X 10-3/4" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7.827" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

- 3. The 5-1/2 inch production liner shall be set at approximately 20,471 feet. A minimum 200' tie back of production liner into the intermediate casing is required. Successful liner top pressure test critical for zonal isolation check. If ICP in Bone Spring Pool and lateral landed in Wolfcamp Pool, a CBL will be ran. The minimum required fill of cement behind the 5-1/2 inch production liner is:
  - Cement should tie-back **200 feet** into the previous casing. Operator shall provide method of verification.
  - Operator has proposed 10% excess instead of 25% excess recommendation for the liner design and this is acceptable. Losses may need to be cured and pump rates may need to be modified to achieve cement tieback when losses occur or are anticipated in the production interval
  - ❖ In Medium Cave/Karst 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.

### **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 CountyCall 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.

KPI - 03/31/2024

### **Falcon SL1 Production Casing Annular Clearance Variance Request**

If Production Casing Connection OD does not meet 0.422" annular clearance inside casing:

- Cement excess will be circulated from Top of Liner to surface (Cement Confirmation)
- Liner Top will be tested to confirm seal.
- If ICP in Bone Spring Pool and lateral landed in Wolfcamp Pool, a CBL will be ran.

### **Offline Cementing Variance Request**

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

### 1. Cement Program

No changes to the cement program will take place for offline cementing.

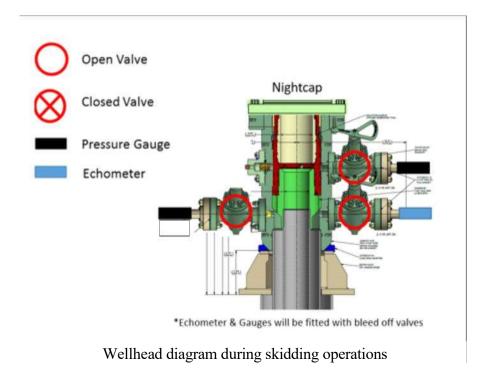
### 2. Offline Cementing Procedure

The operational sequence will be as follows:

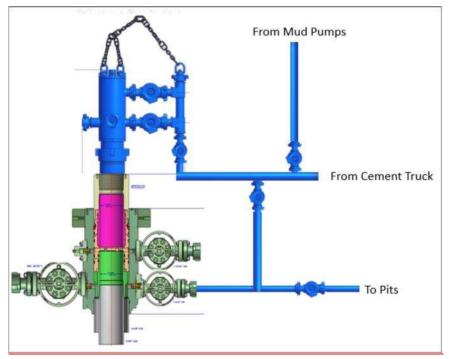
- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
- 2. Land casing with mandrel
- 3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
- 4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi

Annular packoff with both external and internal seals





- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50 psi compressive strength if cannot be verified.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a  $3^{\rm rd}$  party pump will be tied into the upper casing valve to pump down the casing ID
    - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
    - v. Well will be confirmed static
    - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
- 8. Install offline cement tool
- 9. Rig up cement equipment



Wellhead diagram during offline cementing operations

- 10. Circulate bottoms up with cement truck
  - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
  - b. Max anticipated time before circulating with cement truck is 6 hrs
- 11. Perform cement job taking returns from the annulus wellhead valve
- 12. Confirm well is static and floats are holding after cement job
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

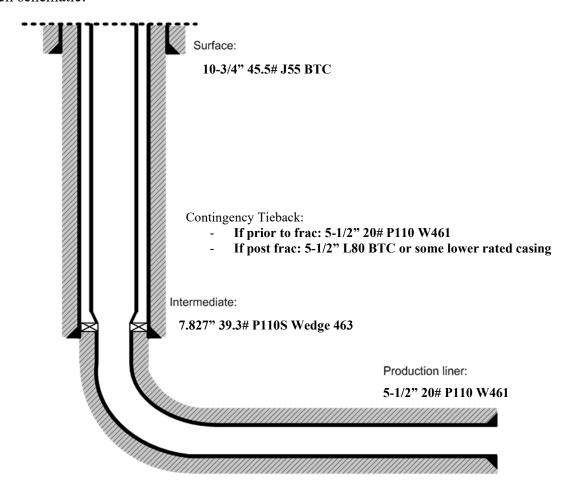
### **OXY USA WTP LP**

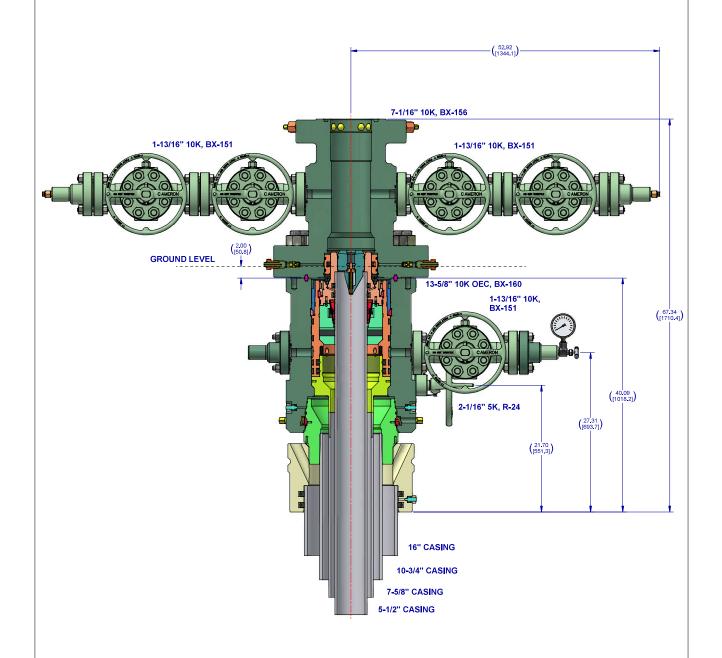
### **Falcon SL1 Contingnecy Tieback Details**

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 14-3/4" hole x 10-3/4" casing for surface section. Cement to surface.
- Drill 9-7/8" hole x 7.827" casing for intermediate section. Cement to surface.
- Drill 6-3/4" hole x 5-1/2" liner for production section. Cement to top of liner, 100' inside 7.827" shoe.
- Release drilling rig from location.
- If contingency tieback required pre-frac:
  - Move in workover rig and run a 5-1/2" 20# P110 Wedge 461 tie-back frac string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
  - o Pump hydraulic fracture job.
  - o Flowback and produce well.
- If contingency tieback required post-frac:
  - o Move in workover rig and run a 5-1/2" L80 BTC or lesser rated tie-back string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
  - o Return well to production.

### General well schematic:





### Notes:

1. THIS IS A PROPOSAL DRAWING AND DIMENSIONS SHOWN ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.

		CONF	IDEN	ITIAL	
SURFACE TREATMENT	TREATMENT DO NOT SCALE				SURFACE
	DRAWN BY:	DATE	A Schlumberger Company		SYSTEMS
	D. GOTTUNG	2 Dec 21		A Schlumberger Company	
MATERIAL & HEAT TREAT	CHECKED BY:	DATE			
	D. GOTTUNG	2 Dec 21		OXY 13-5/8" 10K ADAPT 16" X 10-3/4" X 7-5/8" X 5-1/2"	
	APPROVED BY:	DATE	1		
	D. GOTTUNG	2 Dec 21			
	5.617 LBS INITIAL USE BM: 55.434 KG		SHEET 4 of 4	SD-053434-94-	05 REV:

### **BOP Break Testing Request**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.
- When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper.

If the kill line is broken prior to skid, two tests will be performed.

- 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
- 2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1) Wellhead flange, co-flex hose, check valve, upper pipe rams

See supporting information below:

Subject: Request for a Variance Allowing Break Testing of a Blowout Preventer Stack

OXY USA Inc. (OXY) requests a variance to allow break testing of the Blowout Preventer (BOP) stack when skidding a drilling rig between wells on multi-well pads. This practice entails retesting only the connections of the **BOP** stack that have been disconnected during this operation and not a complete **BOP** test.

### **Background**

43 CFR part 3170 Subpart 3172 states that a **BOP** test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) is this requires a complete **BOP** test and not just a test of the affected component. 43 CFR part 3170 Subpart 3172, Section I.D.2. states, "Some situations may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this Order. This situation can be resolved by requesting a variance...". OXY feels the practice of break testing the **BOP** stack is such a situation. Therefore, as per 43 CFR part 3170 Subpart 3172, Section IV., OXY submits this request for the variance.

### **Supporting Rationale**

43 CFR part 3170 Subpart 3172 became effective on December 19, 1988, and has remained the standard for regulating BLM onshore drilling operations for almost 30 years. During this time there have been significant changes in drilling technology. **BLM** continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR part 3170 Subpart 3172 was originally released. The drilling rig fleet OXY utilizes in New Mexico was built with many modern upgrades. One of which allows the rigs to skid between wells on multi-well pads. A part of this rig package is a hydraulic winch system which safely installs and removes the BOP from the wellhead and carries it during skidding operations. This technology has made break testing a safe and reliable procldure.

American Petroleum Institute (API) standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry. 43 CFR part 3170 Subpart 3172 recognized API Recommended Practices (RP) 53 in its original development. API Standard 53,

Blowout Prevention Equipment Systems for Drilling Wells (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 6.5.3.4.1.b states "Pressure tests on the well control equipment shall be conducted after the disconnection or repair of any pressure containment seal in the **BOP** stack, choke line, kill line, choke manifold, or wellhead assembly but limited to the affected component."

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specifications and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations. BSEE issued new offshore regulations under 30 CFR Part 250, *Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout Preventer Systems and Well Control*, which became effective on July 28, 2016. Section 250.737(d.1) states "Follow the testing requirements of API Standard 53". In addition, Section 250.737(d.8) has adopted language from **API** Standard 53 as it states "Pressure test affected **BOP** components following the disconnection or repair of any well-pressure containment seal in the wellhead or **BOP** stack assembly".

Break testing has been approved by the BLM in the past. See the Appendix for a Sundry Notice that was approved in 2015 by the Farmington Field Office. This approval granted permission for the operator to break test when skidding its Aztec 1000 rig on multi-well pads.

Oxy feels break testing and our current procedures meet the intent of 43 CFR part 3170 Subpart 3172 and often exceed it. We have not seen any evidence that break testing results in more components failing tests than seen on full BOP tests. As skidding operations take place within the 30-day full BOPE test window, the BOP shell and components such as the pipe rams and check valve get tested to the full rated working pressure more often. Therefore, there are more opportunities to ensure components are in good working order. Also, Oxy's standard requires complete BOP tests more often than that of 43 CFR part 3170 Subpart 3172. In addition to function testing the annular at least weekly and the pipe and blind rams on each trip, Oxy also performs a choke drill prior to drilling out every casing shoe. As a crew's training is a vital part of well control, this procedure to simulate step one of the Driller's Method exceeds the requirements of 43 CFR part 3170 Subpart 3172.

### Procedures

- 1) OXY to submit the break testing plan in the APD or Sundry Notice (SN) and receive approval prior to implementing (See Appendix for examples)
- 2) OXY would perform BOP break testing on multi-well pads where multiple intermediate sections can be drilled and cased within the 30-day BOP test window
- 3) After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP.
  - > Between the check valve and the kill line
  - ➤ Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
  - ➤ Between the BOP flange and the wellhead
- 4) The BOP is then lifted and removed from the wellhead by the hydraulic winch system
- 5) After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed
- 6) The choke line and kill line are reconnected
- 7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed
- 8) A shell teit is performed against the upper pipe rams testing all thlee breaks
- 9) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
- 10) These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)
- Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
- 12) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated
- 13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window
- 14) If a second break test is performed, additional components that were not tested on the initial break test will be tested on this break test

### Notes:

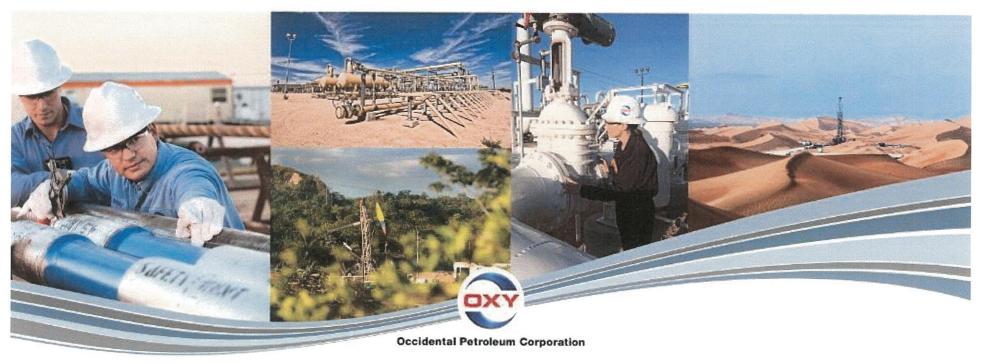
- a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
- b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step 8 above, no further testing of the manifold is done until the next full BOP test.

### **Summary**

OXY requests a variance to allow break testing of the BOP stack when skidding drilling rigs between wells on multi-well pads. API standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry and the BLM. API Standard 53 recognizes break testing as an acceptable practice and BSEE adopted language from this standard into its newly created 30 CFR Part 250 which also supports break testing. Due to this, OXY feels this request meets the intent of 43 CFR part 3170

### REQUEST FOR A VARIANCE TO BREAK TEST THE BOP

**Permian Resources New Mexico** 



### Request for Variance

OXY USA Inc. (OXY) requests a variance to allow break testing of the Blowout Preventer (BOP) stack when skidding a drilling rig between wells on multi-well pads

- This practice entails retesting only the connections of the BOP stack that have been disconnected during this operation and not a complete BOP test.
- As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested, no further testing of the manifold is done until the next full BOP test.
- This request is being made as per Section IV of the Onshore Oil and Gas Order (OOGO) No. 2

## Rationale for Allowing BOP Break Testing

American Petroleum Institute (API) standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry

- (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break API Standard 53, Blowout Prevention Equipment Systems for Drilling Wells testing as an acceptable practice.
- Specifically, API Standard 53, Section 6.5.3.4.1.b states "Pressure tests on the well control equipment shall be conducted after the disconnection or repair of any pressure containment seal in the BOP stack, choke line, kill line, choke manifold, or wellhead assembly but limited to the affected component."



## Rationale for Allowing BOP Break Testing

Interior, has also utilized the API standards, specifications and best practices in the The Bureau of Safety and Environmental Enforcement (BSEE), Department of development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

- BSEE issued new offshore regulations in July 2016 under 30 CFR Part 250, Oil Preventer Systems and Well Control. Within these regulations is language and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout adopted from API Standard 53 which also supports break testing.
- components following the disconnection or repair of any well-pressure Specifically, Section 250.737(d.8) states "Pressure test affected BOP containment seal in the wellhead or BOP stack assembly."



## Rationale for Allowing BOP Break Testing

Break testing has been approved by the BLM in the past

- The Farmington Field Office approved a Sundry Notice (SN) to allow break testing
- This SN granted permission for the operator to break test when skidding its Aztec 1000 rig on multi-well pads

Oxy feels break testing and our current procedures meet or exceed the intent of OOGO

- BOP shell and components such as the pipe rams and check valve get tested to As skidding operations take place within the 30-day full BOPE test window, the the full rated working pressure more often
- Oxy's standard requires complete BOP tests more often than that of OOGO No. 2
- training is a vital part of well control, this procedure to simulate step one of the - Oxy performs a choke drill prior to drilling out every casing shoe. As a crew's Driller's Method exceeds the requirements of OOGO No. 2



### Break Testing Procedures

- 1) OXY to submit the break testing plan in the APD or Sundry Notice (SN) and receive approval prior to implementing
- OXY would perform BOP break testing on multi-well pads where multiple intermediate sections can be drilled and cased within the full BOP test window 5
- After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP. 3
  - Between the check valve and the kill line
- Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
  - Between the BOP flange and the wellhead
- The BOP is then lifted and removed from the wellhead by the hydraulic winch system 4
- After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed 2
- 6) The choke line and kill line are reconnected
- 7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed

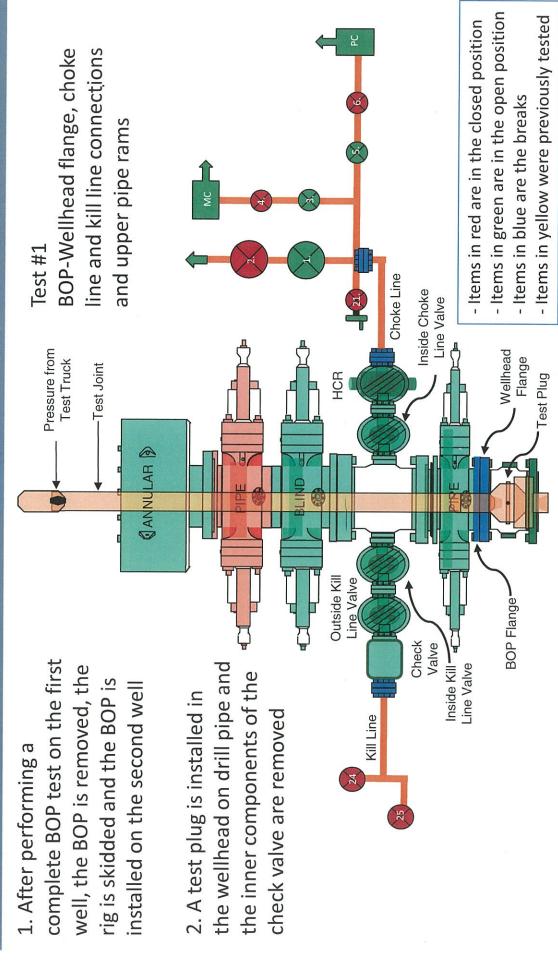


### **Break Testing Procedures**

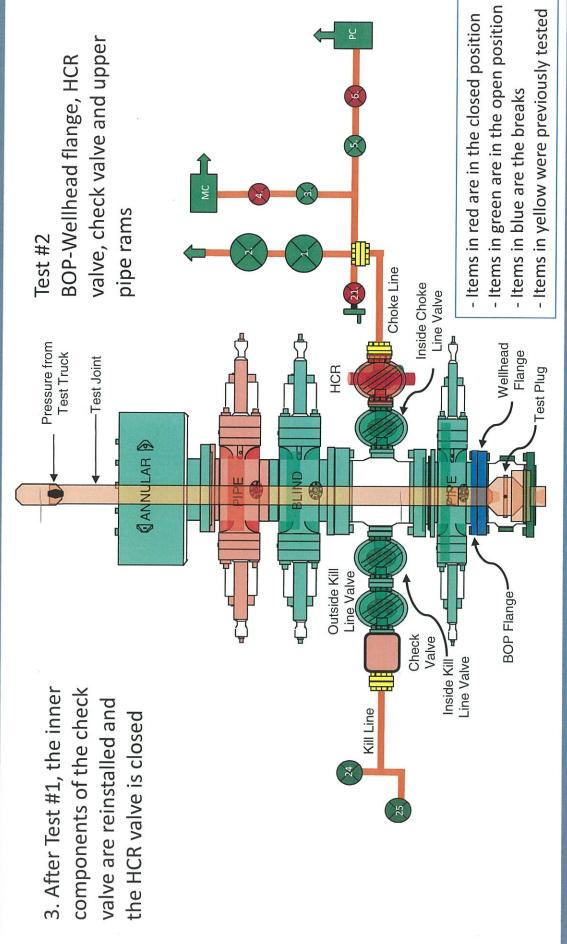
- 8) A shell test is performed against the upper pipe rams testing all three breaks
- 9) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
- 10)These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)
- 11) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
- 12) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated
- 13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window
- 14) If a second break test is performed, additional components that were not tested on the first break test will be tested



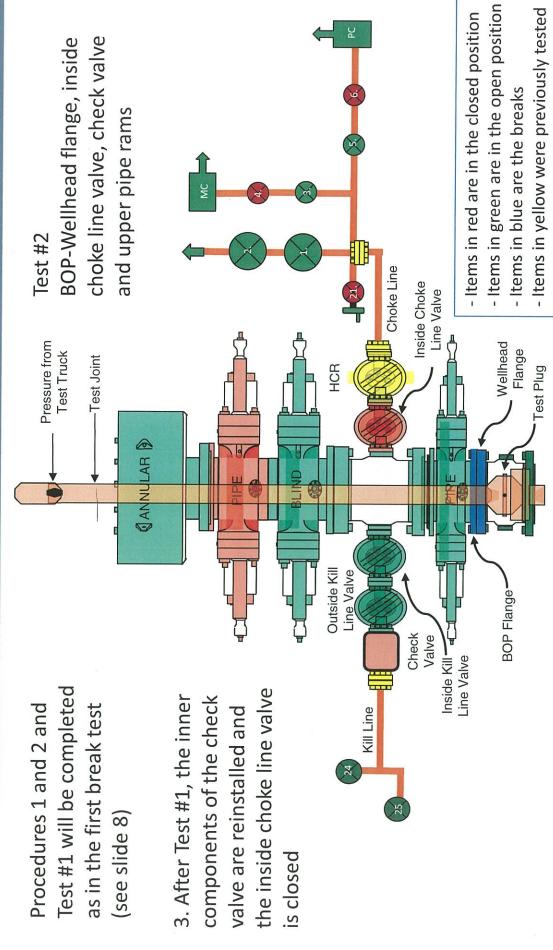
### **Break Testing Procedures and Tests**



### Break Testing Procedures and Tests



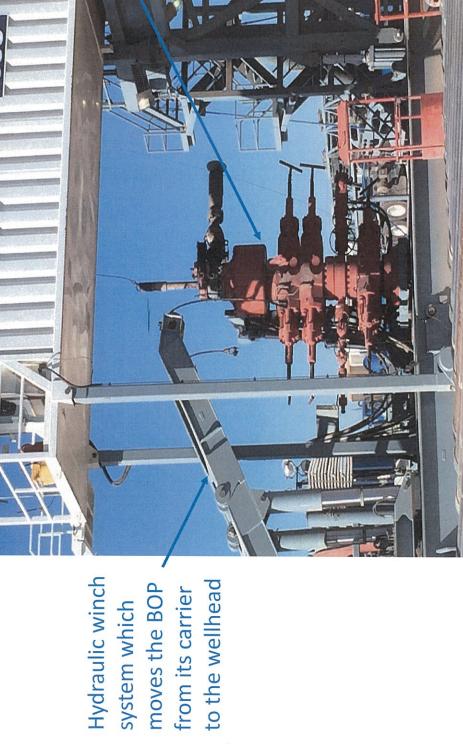
# Second Break Testing Procedures and Tests



### **( )**

BOP standing in its carrier

system which



Released to Imaging: 4/11/2024 1:10:26 PM

**BOP Handling System** 

### 12

Wellhead

**BOP Handling System** 

system moving the BOP over to the wellhead

Hydraulic winch

# Summary for Variance Request for Break Testing

- API standards, specifications and recommended practices are considered industry standards
- OOGO No. 2 recognized API Recommended Practices (RP) 53 in its original development
- API Standard 53 recognizes break testing as an acceptable practice
- standards, specifications and best practices in the development of its offshore The Bureau of Safety and Environmental Enforcement has utilized API oil and gas regulations
- API Standard 53 recognizes break testing as an acceptable practice
- OXY feels break testing meets the intent of OOGO No. 2 to protect public health and safety and the environment



### **Bradenhead Cement CBL Variance Request**

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

### Three string wells:

- CBL will be required on one well per pad
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

### Four string wells:

- CBL is not required
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

# OXY's Minimum Design Criteria

Burst, Collapse, and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software. A sundry will be requested if any lesser grade or different size casing is substituted.

### 1) Casing Design Assumptions

### a) Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Pore pressure in open hole.
  - CSG Test (Intermediate)
- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

### CSG Test (Production)

- o Internal:
  - For Drilling: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
  - For Production: The design pressure test should be the greater of (1) the planned test pressure prior to stimulation down the casing. (2) the regulatory test pressure, and (3) the expected gas lift system pressure. The design test fluid should be the fluid associated with pressure test having the greatest pressure.

### External:

- For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
- For Production: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

### Gas Column (Surface)

- Internal: Assumes a full column of gas in the casing with a Gas/Oil Gradient of 0.1 psi/ft
  in the absence of better information. It is limited to the controlling pressure based on the
  fracture pressure at the shoe or the maximum expected pore pressure within the next
  drilling interval, whichever results in a lower surface pressure.
- External: Fluid gradient below TOC, pore pressure from the TOC to the Intermediate CSG shoe (if applicable), and MW of the drilling mud that was in the hole when the CSG was run from Intermediate CSG shoe to surface.

### Bullheading (Surface / Intermediate)

- Internal: The string must be designed to withstand a pressure profile based on the fracture pressure at the casing shoe with a column of water above the shoe plus an additional surface pressure (in psi) of 0.02 X MD of the shoe to account for pumping friction pressure.
- External: Mud weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

### Gas Kick (Intermediate)

- The string must be designed to at least a gas kick load case unless the rig is unable to detect a kick. For the gas kick load case, the internal pressure profile must be based on a minimum volume of 50 bbl or the minimum kick detection capability of the rig, whichever is greater, and a kick intensity of 2.0 ppg for Class 1, 1.0 ppg of Class 2, and 0.5 ppg for Class 3 and 4 wells.
- Internal: Influx depth of the maximum pore pressure of 0.55 "gas kick gravity" of gas to surface while drilling the next hole section.
- External: Mud weight to the TOC, cement mix water gradient below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Producing (Production)

- Internal: SITP plus a packer fluid gradient to the shoe or top of packer.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Stimulating (Production)

- Internal: Surface pressure or pressure-relief system pressure, whichever is lower plus packer fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Injection / Stimulation Down Casing (Production)

- o Internal: Surface pressure plus injection fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

### b) Collapse Loads

Lost Circulation (Surface / Intermediate)

- Internal: Lost circulation at the TD of the next hole section, and the fluid level falls to a depth where the hydrostatic of the mud equals pore pressure at the depth of the lost circulation zone.
- External: MW of the drilling mud that was in the hole when the casing was run. Cementing (Surface / Intermediate / Production)
- o Internal: Displacement fluid density.
- External: Mud weight from TOC to surface and cement slurry weight from TOC to casing shoe.

Full Evacuation (Production)

- Internal: Full void pipe.
- External: MW of drilling mud in the hole when the casing was run.

### c) Tension Loads

Running Casing (Surface / Intermediate / Production)

 Axial: Buoyant weight of the string plus the lesser of 100,000 lb or the string weight in air.

Green Cement (Surface / Intermediate / Production)

Axial: Buoyant weight of the string plus cement plug bump pressure load.

### **OXY APD CHANGE SUNDRY LIST**

DATE	12/5/2023
WELL NAME	CORRAL BLUFF 11_14 FED COM #025H
API NUMBER	30-015-48884
SPUD DATE	10/9/2024

ITEM	PREVIOUS	UPDATE
NAME	NA	
NSL	NA	
SHL	NA	
PAD	NA	
BHL	NA	
HSU SIZE, ACRES	640	320
POOL	NA	
TARGET FORMATION	SECOND BONE SPRING	HARKEY
TVD	9000'	9418'
SURFACE CASING	40.5 LBS	45.5 LBS
INTERMEDIATE CASING	L-80 HC, BTC	P110S, WEDGE 463
INTERMEDIATE 2 CASING	NA	
PRODUCTION CASING	TAPER 5.5" TO 4.5", DQX	5.5", WEDGE 461
LINER OR TIE BACK	NA	
CEMENT	NA	
FACILITIES	NA	
OTHER	NA	

### OTHER COMMENTS

THE BHL, HSU SIZE, TARGET FORMATION, TVD, SURFACE CASING, INTERMEDIATE CASING, AND PRODUCTION CASING ARE CHANGING.

### **ATTACHEMENTS**

The C-102, DRILL PLAN, CASING CONNECTIONS, DIRECTIONAL PLAN AND A CONTINGENCY TIE BACK ARE ATTACHED.

UPDATED VARIANCE REQUESTS FOR BOP BREAK TESTING, BRADENHEAD CBL, AND OFFLINE CEMENT ARE ATTACHED.

# **ENGINEERING DESIGNS**

PRD NM DIRECTIONAL PLANS (NAD 1983) Corral Bluff 11\_14 Corral Bluff 11\_14 Fed Com 25H

Wellbore #1

Plan: Permitting Plan

# **Standard Planning Report**

30 November, 2023

### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Site

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983

Geo Datum: North American Datum 1983

Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Corral Bluff 11\_14

 Site Position:
 Northing:
 419,542.96 usft
 Latitude:
 32.152848

 From:
 Map
 Easting:
 657,232.81 usft
 Longitude:
 -103.958842

Position Uncertainty: 0.00 ft Slot Radius: 13.200 in

Well Corral Bluff 11\_14 Fed Com 25H

 Well Position
 +N/-S
 0.00 ft
 Northing:
 418,291.67 usft
 Latitude:
 32.149383

 +E/-W
 0.00 ft
 Easting:
 659,863.11 usft
 Longitude:
 -103.950357

Position Uncertainty 2.00 ft Wellhead Elevation: ft Ground Level: 3,078.20 ft

Grid Convergence: 0.20 °

0.00

Wellbore Wellbore #1 **Model Name** Declination Field Strength Magnetics Sample Date Dip Angle (°) (°) (nT) HDGM\_FILE 11/15/2023 6.43 59.68 47,404.20000000

Permitting Plan Design Audit Notes: **PROTOTYPE** Version: Phase: Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +E/-W Direction +N/-S (ft) (ft) (ft) (°) 0.00 0.00 0.00 183.19

Plan Survey Tool Program Date 11/30/2023

Depth From Depth To

(ft) (ft) Survey (Wellbore) Tool Name Remarks

OWSG MWD + HRGM

20,472.86 Permitting Plan (Wellbore #1)

Plan Sections Vertical Build Measured Dogleg Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (ft) (ft) (°/100ft) (°/100ft) (°/100ft) (°) (°) (ft) (ft) (°) Target 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3,500.00 0.00 0.00 3,500.00 0.00 0.00 0.00 0.00 4,362.68 17.25 339.51 4,349.70 120.75 -45.13 2.00 2.00 0.00 339.51 8,908.25 8,690.73 1,383.66 -517 11 0.00 0.00 0.00 17 25 339.51 0.00 -15.05 -158.93 FTP (Corral Bluff 11 ' 9,969.93 90.01 179.71 9.419.00 832.90 -592.39 10.00 6.85 20,472.86 0.00 PBHL (Corral Bluff 11 90.01 179.71 9,418.00 -9.669.88 -538.52 0.00 0.00 0.00

B001Mb\_MWD+HRGM

### Planning Report

Database: HOPSPP

Company:

Project:

ENGINEERING DESIGNS

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
							` '	, ,	, ,
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00		0.00	0.00
							0.00		
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00						0.00		
2,200.00		0.00	2,200.00	0.00	0.00	0.00		0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	2.00	339.51	3,599.98	1.63	-0.61	-1.60	2.00	2.00	0.00
3,600.00									
-,	4.00	339.51	3,699.84	6.54	-2.44	-6.39	2.00	2.00	0.00
3,800.00	6.00	339.51	3,799.45	14.70	-5.49	-14.37	2.00	2.00	0.00
3,900.00	8.00	339.51	3,898.70	26.12	-9.76	-25.53	2.00	2.00	0.00
4,000.00	10.00	339.51	3,997.47	40.77	-15.24	-39.86	2.00	2.00	0.00
4,100.00	12.00	339.51	4,095.62	58.64	-21.92	-57.33	2.00	2.00	0.00
4,200.00	14.00	339.51	4,193.06	79.71	-29.79	-77.93	2.00	2.00	0.00
4,300.00	16.00	339.51	4,289.64	103.95	-38.85	-101.63	2.00	2.00	0.00
4,362.68	17.25	339.51	4,349.70	120.75	-36.63 -45.13	-118.06	2.00	2.00	0.00
4,400.00	17.25	339.51	4,385.34	131.12	-49.00	-128.20	0.00	0.00	0.00
4,500.00	17.25	339.51	4,480.84	158.91	-59.39	-155.36	0.00	0.00	0.00
4,600.00	17.25	339.51	4,576.34	186.69	-69.77	-182.52	0.00	0.00	0.00
4,700.00	17.25	339.51	4,671.84	214.47	-80.15	-209.68	0.00	0.00	0.00
4,800.00	17.25	339.51	4,767.34	242.26	-90.54	-236.85	0.00	0.00	0.00
4,900.00	17.25	339.51	4,862.84	270.04	-100.92	-264.01	0.00	0.00	0.00
5,000.00	17.25	339.51	4,958.34	297.82	-111.30	-291.17	0.00	0.00	0.00
5,100.00	17.25	339.51	5,053.84	325.61	-121.69	-318.34	0.00	0.00	0.00
5,200.00	17.25	339.51	5,149.34	353.39	-132.07	-345.50	0.00	0.00	0.00
5,300.00	17.25	339.51	5,244.84	381.17	-142.45	-372.66	0.00	0.00	0.00

### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project:PRD NM DIRECTIONAL PLANS (NAD 1983)Site:Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

Design.									
Planned Survey									
Plailileu Survey									
									_
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
							, ,	, ,	
5,400.00	17.25	339.51	5,340.34	408.96	-152.84	-399.82	0.00	0.00	0.00
5,500.00	17.25	339.51	5,435.84	436.74	-163.22	-426.99	0.00	0.00	0.00
5,600.00	17.25	339.51	5,531.34	464.52	-173.60	-454.15	0.00	0.00	0.00
5,700.00	17.25	339.51	5,626.84	492.31	-183.99	-481.31	0.00	0.00	0.00
5,800.00	17.25	339.51	5,722.34	520.09	-194.37	-508.48	0.00	0.00	0.00
3,000.00	17.20	333.31	5,722.54	320.03	-134.37	-300.40	0.00	0.00	0.00
5,900.00	17.25	339.51	5,817.84	547.87	-204.75	-535.64	0.00	0.00	0.00
6,000.00	17.25	339.51	5,913.34	575.66	-215.14	-562.80	0.00	0.00	0.00
6,100.00	17.25	339.51	6,008.84	603.44	-225.52	-589.97	0.00	0.00	0.00
6,200.00	17.25	339.51	6,104.34	631.22	-235.90	-617.13	0.00	0.00	0.00
6,300.00	17.25	339.51	6,199.84	659.01	-246.29	-644.29	0.00	0.00	0.00
6,400.00	17.25	339.51	6,295.34	686.79	-256.67	-671.45	0.00	0.00	0.00
		339.51	6,390.84	714.57				0.00	
6,500.00	17.25				-267.05	-698.62	0.00		0.00
6,600.00	17.25	339.51	6,486.34	742.36	-277.44	-725.78	0.00	0.00	0.00
6,700.00	17.25	339.51	6,581.84	770.14	-287.82	-752.94	0.00	0.00	0.00
6,800.00	17.25	339.51	6,677.35	797.92	-298.20	-780.11	0.00	0.00	0.00
0.000.00	47.05	220 54	6 770 05	005.74	200 50	007.07	0.00	0.00	0.00
6,900.00	17.25	339.51	6,772.85	825.71	-308.59	-807.27	0.00	0.00	0.00
7,000.00	17.25	339.51	6,868.35	853.49	-318.97	-834.43	0.00	0.00	0.00
7,100.00	17.25	339.51	6,963.85	881.27	-329.35	-861.60	0.00	0.00	0.00
7,200.00	17.25	339.51	7,059.35	909.06	-339.74	-888.76	0.00	0.00	0.00
7,300.00	17.25	339.51	7,154.85	936.84	-350.12	-915.92	0.00	0.00	0.00
7,400.00	17.25	339.51	7,250.35	964.62	-360.50	-943.08	0.00	0.00	0.00
7,500.00	17.25	339.51	7,345.85	992.41	-370.88	-970.25	0.00	0.00	0.00
7,600.00	17.25	339.51	7,441.35	1,020.19	-381.27	-997.41	0.00	0.00	0.00
7,700.00	17.25	339.51	7,536.85	1,047.97	-391.65	-1,024.57	0.00	0.00	0.00
7,800.00	17.25	339.51	7,632.35	1,075.76	-402.03	-1,051.74	0.00	0.00	0.00
7,900.00	17.25	339.51	7,727.85	1,103.54	-412.42	-1,078.90	0.00	0.00	0.00
8,000.00	17.25	339.51	7,823.35	1,131.32	-422.80	-1,106.06	0.00	0.00	0.00
8,100.00	17.25	339.51	7,918.85	1,159.10	-433.18	-1,133.22	0.00	0.00	0.00
8,200.00	17.25	339.51	8,014.35	1,186.89	-443.57	-1,160.39	0.00	0.00	0.00
8,300.00	17.25	339.51	8,109.85	1,214.67	-453.95	-1,187.55	0.00	0.00	0.00
0.400.00	47.05	220 54	0.005.05	4 040 45	404.00	4 044 74	0.00	0.00	0.00
8,400.00	17.25	339.51	8,205.35	1,242.45	-464.33	-1,214.71	0.00	0.00	0.00
8,500.00	17.25	339.51	8,300.85	1,270.24	-474.72	-1,241.88	0.00	0.00	0.00
8,600.00	17.25	339.51	8,396.35	1,298.02	-485.10	-1,269.04	0.00	0.00	0.00
8,700.00	17.25	339.51	8,491.85	1,325.80	-495.48	-1,296.20	0.00	0.00	0.00
8,800.00	17.25	339.51	8,587.35	1,353.59	-505.87	-1,323.37	0.00	0.00	0.00
8,900.00	17.25	339.51	8,682.85	1,381.37	-516.25	-1,350.53	0.00	0.00	0.00
8,908.25	17.25	339.51	8,690.73	1,383.66	-517.11	-1,352.77	0.00	0.00	0.00
9.000.00	9.28	318.69	8,780.00	1,402.00	-526.77	-1,370.54	10.00	-8.69	-22.70
9,100.00	6.82	243.44	8,879.25	1,405.41	-537.43	-1,373.36	10.00	-2.46	-75.25
9,200.00									
9,200.00	14.36	204.47	8,977.58	1,391.44	-547.91	-1,358.82	10.00	7.54	-38.96
9,300.00	23.77	193.80	9,072.02	1,360.50	-557.88	-1,327.38	10.00	9.41	-10.68
9,400.00	33.51	189.03	9,159.69	1,313.55	-567.04	-1,279.99	10.00	9.74	-4.77
9,500.00	43.36	186.23	9,237.93	1,252.00	-575.11	-1,218.09	10.00	9.85	-2.80
9,600.00	53.26	184.30	9,304.36	1,177.73	-581.86	-1,143.56	10.00	9.90	-1.93
9,700.00	63.18	182.81	9,356.96	1,093.00	-587.06	-1,058.66	10.00	9.92	-1.48
0.000.00	70 44	104 57	0.204.44	1 000 27	E00 E0	065.00	10.00	0.03	1 0 4
9,800.00	73.11	181.57	9,394.14	1,000.37	-590.58	-965.98	10.00	9.93	-1.24
9,900.00	83.05	180.46	9,414.77	902.66	-592.29	-868.33	10.00	9.94	-1.12
9,969.93	90.01	179.71	9,419.00	832.90	-592.39	-798.68	10.00	9.94	-1.07
10,000.00	90.01	179.71	9,419.00	802.84	-592.23	-768.66	0.00	0.00	0.00
10,100.00	90.01	179.71	9,418.99	702.84	-591.72	-668.85	0.00	0.00	0.00
10,200.00	90.01	179.71	9,418.98	602.84	-591.21	-569.03	0.00	0.00	0.00
10,300.00	90.01	179.71	9,418.97	502.84	-590.69	-469.22	0.00	0.00	0.00
10,400.00	90.01	179.71	9,418.96	402.84	-590.18	-369.40	0.00	0.00	0.00
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10 500 00	QN N1	170 71	9 418 95	302 84	-580 67	-260 50	0.00	(1 (1(1	() ()()
10,500.00 10,600.00	90.01 90.01	179.71 179.71	9,418.95 9,418.94	302.84 202.84	-589.67 -589.15	-269.59 -169.77	0.00 0.00	0.00 0.00	0.00 0.00

### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

esign:	Permitting Pla	***							
lanned Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
10,700.00	90.01	179.71	9,418.93	102.84	-588.64	-69.95	0.00	0.00	0.00
10,800.00	90.01	179.71	9,418.92	2.85	-588.13	29.86	0.00	0.00	0.00
10,900.00	90.01	179.71	9,418.91	-97.15	-587.62	129.68	0.00	0.00	0.00
11,000.00	90.01	179.71	9,418.90	-197.15	-587.10	229.49	0.00	0.00	0.00
11,100.00	90.01	179.71	9,418.89	-297.15	-586.59	329.31	0.00	0.00	0.00
11,200.00	90.01	179.71	9,418.88	-397.15	-586.08	429.12	0.00	0.00	0.00
11,300.00	90.01	179.71	9,418.87	-497.15	-585.56	528.94	0.00	0.00	0.00
11,400.00	90.01	179.71	9,418.86	-597.15	-585.05	628.75	0.00	0.00	0.00
11,500.00	90.01	179.71	9,418.85	-697.14	-584.54	728.57	0.00	0.00	0.00
11,600.00	90.01	179.71	9,418.85	-797.14	-584.03	828.38	0.00	0.00	0.00
11,700.00	90.01	179.71	9,418.84	-897.14	-583.51	928.20	0.00	0.00	0.00
11,800.00	90.01	179.71	9,418.83	-997.14	-583.00	1,028.02	0.00	0.00	0.00
11,900.00	90.01	179.71	9,418.82	-1,097.14	-582.49	1,127.83	0.00	0.00	0.00
12,000.00	90.01	179.71	9,418.81	-1,197.14	-581.97	1,227.65	0.00	0.00	0.00
12,100.00	90.01	179.71	9,418.80	-1,297.14	-581.46	1,327.46	0.00	0.00	0.00
12,200.00	90.01	179.71	9,418.79	-1,397.14	-580.95	1,427.28	0.00	0.00	0.00
12,300.00	90.01	179.71	9,418.78	-1,497.13	-580.44	1,527.09	0.00	0.00	0.00
12,400.00	90.01	179.71	9,418.77	-1,597.13	-579.92	1,626.91	0.00	0.00	0.00
12,500.00	90.01	179.71	9,418.76	-1,697.13	-579.41	1,726.72	0.00	0.00	0.00
12,600.00	90.01	179.71	9,418.75	-1,797.13	-578.90	1,826.54	0.00	0.00	0.00
12,700.00	90.01	179.71	9,418.74	-1,897.13	-578.38	1,926.35	0.00	0.00	0.00
12,800.00	90.01	179.71	9,418.73	-1,997.13	-577.87	2,026.17	0.00	0.00	0.00
			,						
12,900.00	90.01	179.71	9,418.72	-2,097.13	-577.36	2,125.99	0.00	0.00	0.00
13,000.00	90.01	179.71	9,418.71	-2,197.13	-576.85	2,225.80	0.00	0.00	0.00
13,100.00	90.01	179.71	9,418.70	-2,297.12	-576.33	2,325.62	0.00	0.00	0.00
13,200.00	90.01	179.71	9,418.69	-2,397.12	-575.82	2,425.43	0.00	0.00	0.00
13,300.00	90.01	179.71	9,418.68	-2,497.12	-575.31	2,525.25	0.00	0.00	0.00
			,						
13,400.00	90.01	179.71	9,418.67	-2,597.12	-574.79	2,625.06	0.00	0.00	0.00
13,500.00	90.01	179.71	9,418.66	-2,697.12	-574.28	2,724.88	0.00	0.00	0.00
13,600.00	90.01	179.71	9,418.65	-2,797.12	-573.77	2,824.69	0.00	0.00	0.00
13,700.00	90.01	179.71	9,418.65	-2,897.12	-573.26	2,924.51	0.00	0.00	0.00
13,800.00	90.01	179.71	9,418.64	-2,997.11	-572.74	3,024.32	0.00	0.00	0.00
13,900.00	90.01	179.71	9,418.63	-3,097.11	-572.23	3,124.14	0.00	0.00	0.00
14,000.00	90.01	179.71	9,418.62	-3,197.11	-571.72	3,223.96	0.00	0.00	0.00
			,						
14,100.00	90.01	179.71	9,418.61	-3,297.11	-571.20	3,323.77	0.00	0.00	0.00
14,200.00	90.01	179.71	9,418.60	-3,397.11	-570.69	3,423.59	0.00	0.00	0.00
14,300.00	90.01	179.71	9,418.59	-3,497.11	-570.18	3,523.40	0.00	0.00	0.00
14.400.00	90.01	179.71	9,418.58	-3.597.11	-569.67	3,623.22	0.00	0.00	0.00
14,500.00	90.01	179.71	9,418.57	-3,697.11	-569.15	3,723.03	0.00	0.00	0.00
14,600.00	90.01	179.71	9,418.56	-3,797.10	-568.64	3,822.85	0.00	0.00	0.00
,									
14,700.00	90.01	179.71	9,418.55	-3,897.10	-568.13	3,922.66	0.00	0.00	0.00
14,800.00	90.01	179.71	9,418.54	-3,997.10	-567.61	4,022.48	0.00	0.00	0.00
14,900.00	90.01	179.71	9,418.53	-4,097.10	-567.10	4,122.29	0.00	0.00	0.00
15,000.00	90.01	179.71	9,418.52	-4,197.10	-566.59	4,222.11	0.00	0.00	0.00
15,100.00	90.01	179.71	9,418.51	-4,297.10	-566.08	4,321.93	0.00	0.00	0.00
15,200.00	90.01	179.71	9,418.50	-4,397.10	-565.56	4,421.74	0.00	0.00	0.00
15,300.00	90.01	179.71	9,418.49	-4,497.10	-565.05	4,521.56	0.00	0.00	0.00
15,400.00	90.01	179.71	9,418.48	-4,597.09	-564.54	4,621.37	0.00	0.00	0.00
15,500.00	90.01	179.71	9,418.47	-4,697.09	-564.02	4,721.19	0.00	0.00	0.00
15,600.00	90.01	179.71	9,418.46	-4,797.09	-563.51	4,821.00	0.00	0.00	0.00
15,700.00	90.01	179.71	9,418.45	-4,897.09	-563.00	4,920.82	0.00	0.00	0.00
15,800.00	90.01	179.71	9,418.45	-4,997.09	-562.49	5,020.63	0.00	0.00	0.00
15,900.00	90.01	179.71	9,418.44	-5,097.09	-561.97	5,120.45	0.00	0.00	0.00
16,000.00	90.01	179.71	9,418.43	-5,197.09	-561.46	5,220.27	0.00	0.00	0.00
16,100.00	90.01	179.71	9,418.42	-5,297.08	-560.95	5,320.08	0.00	0.00	0.00
10, 100.00	90.01	113.11	J,+10.42	-5,231.00	-500.95	5,520.00	0.00	0.00	0.00

### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

sured		Vertical			Vertical	Dogleg	Build	Turn
epth Inclination ft) (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
. (,	179.71	9,418.41	-5,397.08	-560.43	5,419.90	0.00	0.00	0.00
,		9,418.41	,		,		0.00	0.00
	179.71		-5,497.08	-559.92	5,519.71	0.00		
,400.00 90.01	179.71	9,418.39	-5,597.08	-559.41	5,619.53	0.00	0.00	0.00
,500.00 90.01	179.71	9,418.38	-5,697.08	-558.90	5,719.34	0.00	0.00	0.00
,600.00 90.01	179.71	9,418.37	-5,797.08	-558.38	5,819.16	0.00	0.00	0.00
,700.00 90.01	179.71	9,418.36	-5,897.08	-557.87	5,918.97	0.00	0.00	0.00
,800.00 90.01	179.71	9,418.35	-5,997.08	-557.36	6,018.79	0.00	0.00	0.00
,900.00 90.01	179.71	9,418.34	-6,097.07	-556.84	6,118.60	0.00	0.00	0.00
,000.00 90.01	179.71	9,418.33	-6,197.07	-556.33	6,218.42	0.00	0.00	0.00
,100.00 90.01	179.71	9,418.32	-6,297.07	-555.82	6,318.24	0.00	0.00	0.00
,200.00 90.01	179.71	9,418.31	-6,397.07	-555.31	6,418.05	0.00	0.00	0.00
,300.00 90.01	179.71	9,418.30	-6,497.07	-554.79	6,517.87	0.00	0.00	0.00
,400.00 90.01	179.71	9,418.29	-6,597.07	-554.28	6,617.68	0.00	0.00	0.00
,500.00 90.01	179.71	9,418.28	-6,697.07	-553.77	6,717.50	0.00	0.00	0.00
,600.00 90.01	179.71	9,418.27	-6,797.06	-553.25	6,817.31	0.00	0.00	0.00
,700.00 90.01	179.71	9,418.26	-6,897.06	-552.74	6,917.13	0.00	0.00	0.00
,800.00 90.01	179.71	9,418.25	-6,997.06	-552.74	7,016.94	0.00	0.00	0.00
	179.71	9,418.25 9,418.25	-6,997.06 -7,097.06		7,016.94 7,116.76	0.00		0.00
,		9,418.25 9,418.24	,	-551.72	,		0.00	
,	179.71	,	-7,197.06	-551.20	7,216.57	0.00	0.00	0.00
,100.00 90.01	179.71	9,418.23	-7,297.06	-550.69	7,316.39	0.00	0.00	0.00
,200.00 90.01	179.71	9,418.22	-7,397.06	-550.18	7,416.21	0.00	0.00	0.00
,300.00 90.01	179.71	9,418.21	-7,497.06	-549.66	7,516.02	0.00	0.00	0.00
,400.00 90.01	179.71	9,418.20	-7,597.05	-549.15	7,615.84	0.00	0.00	0.00
,500.00 90.01	179.71	9,418.19	-7,697.05	-548.64	7,715.65	0.00	0.00	0.00
,600.00 90.01	179.71	9,418.18	-7,797.05	-548.13	7,815.47	0.00	0.00	0.00
,700.00 90.01	179.71	9,418.17	-7,897.05	-547.61	7,915.28	0.00	0.00	0.00
,800.00 90.01	179.71	9,418.16	-7,997.05	-547.10	8,015.10	0.00	0.00	0.00
,900.00 90.01	179.71	9,418.15	-8,097.05	-546.59	8,114.91	0.00	0.00	0.00
,000.00 90.01	179.71	9,418.14	-8,197.05	-546.07	8,214.73	0.00	0.00	0.00
,100.00 90.01	179.71	9,418.13	-8,297.05	-545.56	8,314.54	0.00	0.00	0.00
,200.00 90.01	179.71	9,418.12	-8,397.04	-545.05	8,414.36	0.00	0.00	0.00
,300.00 90.01	179.71	9,418.11	-8,497.04	-544.54	8,514.18	0.00	0.00	0.00
,400.00 90.01	179.71	9,418.10	-8,597.04 -8,597.04	-544.02	8,613.99	0.00	0.00	0.00
,500.00 90.01	179.71	9,418.09	-8,697.04	-543.51	8,713.81	0.00	0.00	0.00
,600.00 90.01	179.71	9,418.08	-8,797.04	-543.00	8,813.62	0.00	0.00	0.00
,700.00 90.01	179.71	9,418.07	-8,897.04	-542.48	8,913.44	0.00	0.00	0.00
,800.00 90.01	179.71	9,418.06	-8,997.04	-541.97	9,013.25	0.00	0.00	0.00
,900.00 90.01	179.71	9,418.05	-9,097.03	-541.46	9,113.07	0.00	0.00	0.00
,000.00 90.01	179.71	9,418.05	-9,197.03	-540.95	9,212.88	0.00	0.00	0.00
,100.00 90.01	179.71	9,418.04	-9,297.03	-540.43	9,312.70	0.00	0.00	0.00
,200.00 90.01	179.71	9,418.03	-9,397.03	-539.92	9,412.51	0.00	0.00	0.00
,		,	,					0.00
,								0.00
,		,	,		,			0.00
,200.00 90.0 ,300.00 90.0 ,400.00 90.0	)1 )1 )1	01 179.71 01 179.71 01 179.71	01 179.71 9,418.03 01 179.71 9,418.02 01 179.71 9,418.01	01 179.71 9,418.03 -9,397.03 01 179.71 9,418.02 -9,497.03 01 179.71 9,418.01 -9,597.03	01 179.71 9,418.03 -9,397.03 -539.92 01 179.71 9,418.02 -9,497.03 -539.41 01 179.71 9,418.01 -9,597.03 -538.90	01 179.71 9,418.03 -9,397.03 -539.92 9,412.51 01 179.71 9,418.02 -9,497.03 -539.41 9,512.33 01 179.71 9,418.01 -9,597.03 -538.90 9,612.15	01 179.71 9,418.03 -9,397.03 -539.92 9,412.51 0.00 01 179.71 9,418.02 -9,497.03 -539.41 9,512.33 0.00 01 179.71 9,418.01 -9,597.03 -538.90 9,612.15 0.00	01 179.71 9,418.03 -9,397.03 -539.92 9,412.51 0.00 0.00 01 179.71 9,418.02 -9,497.03 -539.41 9,512.33 0.00 0.00 01 179.71 9,418.01 -9,597.03 -538.90 9,612.15 0.00 0.00

### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project:PRD NM DIRECTIONAL PLANS (NAD 1983)Site:Corral Bluff 11\_14

Well: Corral Bluff 11\_14 Fed Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Corral Bluff 11\_14 Fed Com 25H

RKB=26.5' @ 3104.70ft RKB=26.5' @ 3104.70ft

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Corral Bluff 11_14 - plan misses target - Point		0.00 3.42ft at 1.50	1.50 Oft MD (1.50	882.90 TVD, 0.00 N,	-592.76 0.00 E)	419,174.50	659,270.40	32.151815	-103.952262
PBHL (Corral Bluff 11_1- - plan hits target cer - Point		0.01	9,418.00	-9,669.88	-538.52	408,622.53	659,324.63	32.122809	-103.952208
FTP (Corral Bluff 11_14 - plan hits target cer - Point	0.00 nter	0.00	9,419.00	832.90	-592.39	419,124.51	659,270.77	32.151678	-103.952262

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	368.70	368.70	RUSTLER				
	766.70	766.70	SALADO				
	1,695.70	1,695.70	CASTILE				
	3,247.70	3,247.70	DELAWARE				
	3,256.70	3,256.70	BELL CANYON				
	4,132.83	4,127.70	CHERRY CANYON				
	5,630.74	5,560.70	BRUSHY CANYON				
	7,158.49	7,019.70	BONE SPRING				
	8,102.99	7,921.70	BONE SPRING 1ST				
	8,997.67	8,777.70	BONE SPRING 2ND				

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
3,500.00	3,500.00	0.00	0.00	Start Build 2.00
4,362.68	4,349.70	120.75	-45.13	Start 4545.57 hold at 4362.68 MD
8,908.25	8,690.73	1,383.66	-517.11	KOP, Build 10deg/100
9,969.93	9,419.00	832.90	-592.39	Landing Point
20,472.86	9,418.00	-9,669.88	-538.52	TD at 20472.86' MD

# **Tenaris**Hydril

# 5.500" 20.00 lb/ft P110-CY TenarisHydril Wedge 461™ Matched Strength



Special Data Sheet TH DS-20.0359 12 August 2020 Rev 00

Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min Wall Thickness	87.5%	Туре	CASING	Connection OD Option	MATCHED STRENGTH
Pipe Body Data					
Geometry				Performance	
Nominal OD	5.500 in.	Nominal ID	4.778 in.	Body Yield Strength	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	Wall Thickness	0.361 in.	Internal Yield	12640 psi
Standard Drift Diameter	4.653 in.	Plain End Weight	19.83 lbs/ft	SMYS	110000 psi
Special Drift Diameter	N/A	OD Tolerance	API	Collapse Pressure	11110 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	Tension Efficiency	100%	Minimum	17000 ft-lbs
Make-up Loss	3.775 in.	Joint Yield Strength	641 x 1000 lbs	Optimum	18000 ft-lbs
Threads per in.	3.40	Internal Yield	12640 psi	Maximum	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	Compression Efficiency	100%	Operational Limit Torques	5
Coupling Length	7.714 in.	Compression Strength	641 x 1000 lbs	Operating Torque	32000 ft-lbs
		Bending	92 °/100 ft	Yield Torque	38000 ft-lbs
		Collapse	11110 psi	Buck-On Torques	
				Minimum	21600 ft-lbs
				Maximum	23100 ft-lbs

# Notes

<sup>\*</sup>If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

# Oxy USA Inc. - CORRAL BLUFF 11\_14 FED COM 25H Drill Plan

### 1. Geologic Formations

TVD of Target (ft):	9418	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20471	Deepest Expected Fresh Water (ft):	367

### **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	<b>Expected Fluids</b>
Rustler	367	367	
Salado	765	765	Salt
Castile	1694	1694	Salt
Delaware	3246	3246	Oil/Gas/Brine
Bell Canyon	3255	3255	Oil/Gas/Brine
Cherry Canyon	4131	4126	Oil/Gas/Brine
Brushy Canyon	5629	5559	Losses
Bone Spring	7157	7018	Oil/Gas
Bone Spring 1st	8101	7920	Oil/Gas
Bone Spring 2nd	8996	8776	Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

### 2. Casing Program

		N	ID	T\	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	14.75	0	705	0	705	10.75	45.5	J-55	втс
Intermediate	9.875	0	8807	0	8589	7.827	39.3	P110S	Wedge 463
Production	6.75	8607	20471	8389	9418	5.5	20	P-110	Wedge 461

All casing strings will be tested in accordance with 43 CFR part 3170 Subpart 3172

Occidental - Permian New Mexico

All Casing SF Values will meet or exceed						
those below						
SF SF Body SF Joint SF						
Collapse	Burst	Tension	Tension			
Collapse	Duist	1 61131011	1 61131011			

\*If Production Casing Connection OD does not meet 0.422" annular clearance inside casing:

- Cement excess will be circulated from Top of Liner to surface (Cement Confirmation)
- Liner Top will be tested to confirm seal
- If ICP in Bone Spring Pool and lateral landed in Wolfcamp Pool, a CBL will be ran.

	Y or N
Is casing new? If used, attach certification as required in 43 CFR 3160	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards?	Y
If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	1
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
	-
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
	_
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	590	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	368	1.65	13.2	5%	5,879	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	837	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	895	1.38	13.2	25%	8,607	Circulate	Class H+Ret., Disper., Salt

### **Offline Cementing Request**

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365. Please see Offline Cementing Variance attachment for further details.

### **Bradenhead CBL Request**

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see Bradenhead CBL Variance attachment for further details.

### **Cement Top and Liner Overlap**

• Oxy is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 200 ft into previous casing string

The reason for this is so that we can come back and develop shallower benches from the same 7.625"/7.827" mainbore in the future

Cement will be brought to the top of this liner hanger

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4. Pressure Control Equipment

4. Pressure Control	90				ı							
BOP installed and		Min.					Deepest TVD					
tested before drilling	Size?	Required		Туре	✓	Tested to:	Depth (ft) per					
which hole?		WP					Section:					
		5M		Annular	>	70% of working pressure						
				Blind Ram	✓		1					
9.875" Hole	13-5/8"	5M	Pipe Ram		250 psi / 5000 psi	8589						
			Double Ram		<b>√</b>	230 psi / 3000 psi						
			Other*				<u> </u>					
	13-5/8"						5M		Annular	<b>&gt;</b>	70% of working pressure	
				Blind Ram								
6.75" Hole		5M		Pipe Ram		250 psi / 5000 psi	9418					
				Double Ram	<b>√</b>	230 psi / 3000 psi						
			Other*				1					

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

<sup>\*</sup>Specify if additional ram is utilized

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Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.

On Exploratory wells or 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. Will be tested in accordance with 43 CFR part 3170 Subpart 3172.

A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Are anchors required by manufacturer?

A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per 43 CFR part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.

See attached schematics.

### **BOP Break Testing Request**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see BOP Break Testing Variance attachment for further details.

Oxy will use Cameron ADAPT wellhead system that uses an OEC top flange connection. This connection has been fully vetted and verified by API to Spec 6A and carries an API monogram.

Occidental - Permian New Mexico

### 5. Mud Program

Cantina	Depth - MD		Depth - TVD		Toma	Weight	Viscosity	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	705	0	705	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	705	8807	705	8589	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	8807	20471	8589	9418	Water-Based or Oil- Based Mud	9.5 - 12.5	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	1 V1/1VID TOCCO/ VISUAL IVIOLITICATING

6. Logging and Testing Procedures

Loggi	ng, Coring and Testing.
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).
1 68	Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Addit	ional logs planned	Interval
No	Resistivity	
No	Density	
Yes	CBL	Production string
Yes	Mud log	Bone Spring – TD
No	PEX	

Occidental - Permian New Mexico

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6122 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	156°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR part 3170 Subpart 3172. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Υ	H2S Plan attached

## 8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe.  We plan to drill the 4 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe.  Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total Estimated Cuttings Volume: 1433 bbls

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 811 S. First St., Artesia, NM 88210

District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (575) 748-1283 Fax: (575) 748-9720

Phone: (505) 476-3460 Fax: (505) 476-3462

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

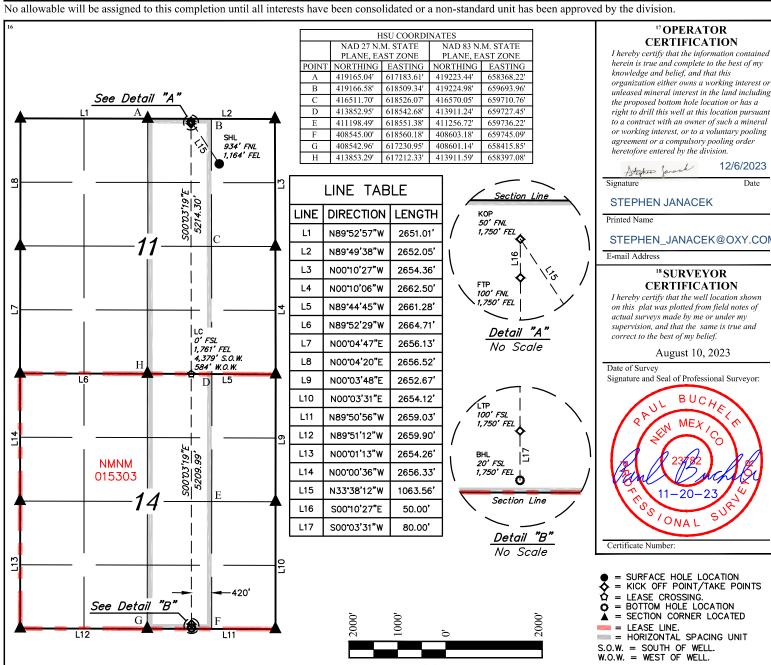
WELL EOCHTION AND MCREAGE DEDICATION LEAT						
<sup>1</sup> API Number 30-015-48884		<sup>2</sup> Pool Code 96473	PIERCE CROSSING; BONE SPRING! LAST			
<sup>4</sup> Property Code			operty Name UFF 11-14 FED COM	<sup>6</sup> Well Number 25H		
<sup>7</sup> OGRID №. 16696			perator Name Y USA INC.	<sup>9</sup> Elevation 3078.2'		

### <sup>10</sup> Surface Location

ſ	UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
١	A	11	25S	29E		934	NORTH	1164	EAST	EDDY

### "Bottom Hole Location If Different From Surface

UL or lot no. O	Sectio 14	n	Township 25S	Range 29E	Lot Idn	F	eet from the 20	North/South line SOUTH	Feet from the 1750	East/West line EAST	County EDDY
12 Dedicated Acre 320	es	<sup>13</sup> Joi	int or Infill	<sup>14</sup> Conso	lidation Code		<sup>15</sup> Order No.				



SCALE DRAWN BY: N.R. 08-30-23 REV:1 Z.L. 11-20-23 (UPDATE HSU)

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°08'57.78" (32.149383°)
LONGITUDE = -103°57'01.29" (-103.950357°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°08'57.33" (32.149259°)
LONGITUDE = -103°56'59.54" (-103.949872°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418291.67' E: 659863.11'
STATE PLANE NAD 27 (N.M. EAST)
N: 418233.29' E: 618678.46'

NAD 83 (LEASE CROSSING)
LATITUDE = 32°08'14.45" (32.137347°)
LONGITUDE = -103°57'08.04" (-103.952234°
NAD 27 (LEASE CROSSING)
$I \Delta TITUDE = 32^{\circ}08'14'00'' (32'137224^{\circ})$

LONGITUDE = -103°57'06.30" (-103.951750°) STATE PLANE NAD 83 (N.M. EAST) N: 413911.35' E: 659297.59' STATE PLANE NAD 27 (N.M. EAST)

N: 413853.06' E: 618112.8

NAD 83 (LAST TAKE POINT) LATITUDE = 32°07'22.90" (32.123029°) LONGITUDE = -103°57'07.95" (-103.95 ' (-103.952207° NAD 27 (LAST TAKE POINT) LATITUDE = 32°07'22.46" (32.122905°) LONGITUDE = -103°57'06.20" (-103.951723°) STATE PLANE NAD 83 (N.M. EAST) STATE PLANE NAD 27 (N.M. EAST) : 408644.33' E: 618139.4

NAD 83 (KICK OFF POINT)

LATITUDE = 32°09'06.54" (32.151815°) LONGITUDE = -103°57'08.14" (-103.952262°)

NAD 27 (KICK OFF POINT) LATITUDE = 32°09'06.09" (32.151692°) LONGITUDE = -103°57'06.40" (-103.951777°

STATE PLANE NAD 83 (N.M. EAST)

STATE PLANE NAD 27 (N.M. EAST)

NAD 83 (FIRST TAKE POINT) LATITUDE = 32°09'06.04" (32.151678°) LONGITUDE = -103°57'08.14" (-103.952261°) NAD 27 (FIRST TAKE POINT) LATITUDE = 32°09'05.60" (32.151554°) LONGITUDE = -103°57'06.39" (-103.951776°) LONGITUDE = -103°57'06.39" (-103.95) STATE PLANE NAD 83 (N.M. EAST) STATE PLANE NAD 27 (N.M. EAST)

NAD 83 (BOTTOM HOLE LOCATION) LATITUDE = 32°07'22.11" (32.122809° LONGITUDE = -103°57'07.95" (-103.95 NAD 27 (BOTTOM HOLE LOCATION)

LATITUDE = 32°07'21.67" (32.122685°)

LONGITUDE = -103°57'06.20" (-103.951723°) STATE PLANE NAD 83 (N.M. EAST) N: 408622.53° E: 659324.63° STATE PLANE NAD 27 (N.M. EAST) N: 408564.35' E: 618139.7

### NOTE

- Distances referenced on plat to section lines are
- perpendicular.
  Basis of Bearings is a
  Transverse Mercator Projection with a Central Meridian of W103°53'00' (NAD 83)



# TenarisHydril Wedge 463®



Coupling	Pipe Body
Grade: P110-S	Grade: P110-S
Body: White	1st Band: White
1st Band: Orange	2nd Band: Orange
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.827 in.	Wall Thickness	0.500 in.	Grade	P110-S
Min. Wall Thickness	87.50 %	Pipe Body Drift	Special Drift	Туре	Casing
Connection OD Option	REGULAR				

### Pipe Body Data

Geometry			
Nominal OD	7.827 in.	Wall Thickness	0.500 in.
Nominal Weight	39.30 lb/ft	Plain End Weight	39.16 lb/ft
Drift	6.750 in.	OD Tolerance	API
Nominal ID	6.827 in.		

Performance	
Body Yield Strength	1266 x1000 lb
Min. Internal Yield Pressure	12,300 psi
SMYS	110,000 psi
Collapse Pressure	10,490 psi

#### **Connection Data**

8.500 in.
10.950 in.
6.814 in.
4.520 in.
3.25
Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	1266 x1000 lb
Internal Pressure Capacity	12,300 psi
Compression Efficiency	100 %
Compression Strength	1266 x1000 lb
Max. Allowable Bending	64.42 °/100 ft
External Pressure Capacity	10,490 psi
Coupling Face Load	414,177 lb

Make-Up Torques	
Minimum	22,000 ft-lb
Optimum	23,000 ft-lb
Maximum	27,000 ft-lb
Operation Limit Torques	
Operating Torque	61,000 ft-lb
Yield Torque	70,000 ft-lb
Buck-On	
Minimum	26,000 ft-lb
Maximum	29,000 ft-lb

# Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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PII/CII

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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 332039

### **CONDITIONS**

No contract the contract to th		
Operator:	OGRID:	
OXY USA INC	16696	
P.O. Box 4294	Action Number:	
Houston, TX 772104294	332039	
	Action Type:	
	[C-103] NOI Change of Plans (C-103A)	

#### CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	4/11/2024