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

Sundry Print Report

Well Name: REGAL LAGER 31-19

FEDERAL COM

Well Location: T22S / R32E / SEC 6 /

LOT 1 / 32.4257395 / -103.7084698

County or Parish/State: LEA /

NM

Well Number: 3H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM42814

Unit or CA Name:

**Unit or CA Number:** 

**US Well Number:** 

Operator: OXY USA INCORPORATED

#### **Notice of Intent**

Sundry ID: 2861320

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 07/02/2025

Time Sundry Submitted: 12:36

Date proposed operation will begin: 08/15/2025

**Procedure Description:** OXY USA Inc., respectfully requests to amend the subject AAPD to revise the BHL, HSU, TVD and Drill Plan. Old BHL: 20' FNL 2040' FEL New BHL: 20' FNL 1600' FEL Old HSU: 480 acres New HSU: 960 acres Old TVD: 9860' New TVD: 10925' \*THERE IS NO ADDITIONAL SURFACE DISTURBANCE RELATED TO THIS SUNDRY" Attached is the updated C102, drill plan, directional and APD Change Worksheet.

\*Per 19.15.14.9 NMAC, OXY USA Inc. certifies no addition of PFAS chemicals to fluids used in the completion of recompletion of the subject well.

#### **NOI Attachments**

#### **Procedure Description**

RegalLager31\_19FedCom3H\_API\_BTC\_SC\_10.750\_40.5ppf\_J55\_20250702123628.pdf

 $RegalLager 31\_19 Fed Com 3H\_13 in ADAPT\_4S\_10x 15\_20250702123619.pdf$ 

RegalLager31\_19FedCom3H\_DrillPlan\_4S\_20250702123610.pdf

RegalLager31\_19FedCom3H\_VAM\_SPRINT\_TC\_SC\_5.5in\_20ppf\_P110EC\_20250702123552.pdf

 $RegalLager 31\_19 Fed Com 3H\_VAM\_DWC\_C\_HT\_IS\_5.500 in\_20 ppf\_P110 RY\_20250702123540.pdf$ 

RegalLager31\_19FedCom3H\_13inADAPT\_13.375in\_9.625in\_10x10\_20250702123526.pdf

RegalLager31\_19FedCom3H\_5MAnnBOPVariance\_20250702123515.pdf

RegalLager31\_19FedCom3H\_BOPBreakTestingVariance2025\_20250702123504.pdf

RegalLager31\_19FedCom3H\_DirectPlan\_20250702123450.pdf

Received by OCD: Well Alde: 2109ALS RUER 31-19

Well Acation: T22S / R32E / SEC 6 / LOT 1 / 32.4257395 / -103.7084698

County or Parish/State: LEA /

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Well Number: 3H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM42814

Unit or CA Name:

Unit or CA Number:

**US Well Number:** 

Operator: OXY USA INCORPORATED

RegalLager31\_19FedCom3H\_DrillPlan\_20250702123440.pdf

RegalLager31\_19FedCom3H\_C102\_20250702123426.pdf

RegalLager31\_19FedCom3H\_APDCHGSUNDRYWORKSHEET\_20250702123411.pdf

# **Conditions of Approval**

#### Additional

REGAL LAGER 31 19 FEDERAL COM 3H SUNDRY COA 7 15 2025 20250721131408.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: MELISSA GUIDRY Signed on: JUL 02, 2025 12:36 PM

Name: OXY USA INCORPORATED

Title: Advisor Regulatory Sr.

Street Address: 5 GREENWAY PLAZA SUITE 110

City: HOUSTON State: TX

Phone: (713) 497-2481

Email address: MELISSA\_GUIDRY@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 Title: ENGINEER

BLM POC Phone: 5759884722 BLM POC Email Address: KIMMATTY@BLM.GOV

**Disposition:** Approved **Disposition Date:** 07/22/2025

Signature: KEITH IMMATTY

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Form 3160-5 (June 2019)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

	Expires: October 31,
5. Lease Serial No.	NMNM42814

SUNDRY NOTICES AND REPORTS ON WELLS

<	If Indian	Allottee	or Tribe Name

	orm for proposals to Jse Form 3160-3 (AP			,		
SUBMIT IN 1	TRIPLICATE - Other instruc	tions on page 2	2	7. If Unit of CA/Agreement,	Name and/or No.	
1. Type of Well  Oil Well  Gas W	<b>—</b>			8. Well Name and No. REGAL LAGER 31-19 FEDERAL COM/3		
2. Name of Operator OXY USA INCO	RPORATED			9. API Well No. 30-025-54	4898	
3a. Address P.O. BOX 1002, TUPM	AN, CA 93276-1002	b. Phone No. <i>(in</i> 661) 763-6046	nclude area code)	10. Field and Pool or Explora	·	
4. Location of Well (Footage, Sec., T.,R SEC 6/T22S/R32E/NMP	.,M., or Survey Description)			11. Country or Parish, State LEA/NM		
12. CHE	CK THE APPROPRIATE BOX	X(ES) TO INDI	CATE NATURE C	F NOTICE, REPORT OR OT	THER DATA	
TYPE OF SUBMISSION			TYPE	OF ACTION		
✓ Notice of Intent	Acidize Alter Casing Casing Repair		lic Fracturing [	Production (Start/Resume) Reclamation Recomplete	Water Shut-Off Well Integrity Other	
Subsequent Report  Final Abandonment Notice	Change Plans Convert to Injection	Plug an	d Abandon	Temporarily Abandon Water Disposal	<del>_</del>	
completed. Final Abandonment Not is ready for final inspection.)  OXY USA Inc., respectfully recommendate of the continued on page 3 additional inspection.)  OXY USA Inc., respectfully recommendate of the continued on page 3 additional inspection.)	quests to amend the subject	t AAPD to revis	se the BHL, HSU	, TVD and Drill Plan.  *Per 19.15.14.9 NM; addition of PFAS ch	IAC, OXY USA Inc. certifies nemicals to fluids used in the appletion of the subject well.	no
14. I hereby certify that the foregoing is MELISSA GUIDRY / Ph: (713) 497-	,	71	Advisor Reg	ulatory Sr.		
Title  Signature (Electronic Submission)  Date			07/02/:	/2025		
	THE SPACE	FOR FEDE	RAL OR STA	TE OFICE USE		
Approved by						
KEITH P IMMATTY / Ph: (575) 988			ENGIN Title	EER	07/22/2025 Date	
Conditions of approval, if any, are attack certify that the applicant holds legal or e which would entitle the applicant to con	quitable title to those rights in			LSBAD		-
TW. 10 H C C C 1001 - 1 TW. 40	NII G G G - 4 : 1212 1 - 2		1 ' 1	1 200 0 1 1	1	1.0

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.

#### **GENERAL INSTRUCTIONS**

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

#### SPECIFIC INSTRUCTIONS

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

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

#### **NOTICES**

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

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

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

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

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

#### **Additional Information**

#### **Additional Remarks**

Attached is the updated C102, drill plan, directional and APD Change Worksheet.

#### **Location of Well**

0. SHL: LOT 1 / 763 FNL / 947 FEL / TWSP: 22S / RANGE: 32E / SECTION: 6 / LAT: 32.4257395 / LONG: -103.7084698 ( TVD: 0 feet, MD: 0 feet )

PPP: SWNE / 2640 FSL / 2042 FEL / TWSP: 21S / RANGE: 32E / SECTION: 30 / LAT: 32.4496007 / LONG: -103.712035 ( TVD: 9860 feet, MD: 18146 feet )

PPP: SWNE / 2635 FSL / 2041 FEL / TWSP: 21S / RANGE: 32E / SECTION: 19 / LAT: 32.464122 / LONG: -103.7120457 ( TVD: 9860 feet, MD: 23430 feet )

PPP: NWNE / 1324 FNL / 2041 FEL / TWSP: 21S / RANGE: 32E / SECTION: 30 / LAT: 32.4532397 / LONG: -103.7120377 ( TVD: 9860 feet, MD: 19470 feet )

PPP: SWSE / 100 FSL / 2040 FEL / TWSP: 21S / RANGE: 32E / SECTION: 31 / LAT: 32.4280983 / LONG: -103.712019 ( TVD: 9860 feet, MD: 10323 feet )

PPP: SWSE / 0 FNL / 2042 FEL / TWSP: 21S / RANGE: 32E / SECTION: 30 / LAT: 32.4423441 / LONG: -103.7120296 ( TVD: 9860 feet, MD: 15506 feet )

BHL: NWNE / 20 FNL / 2040 FEL / TWSP: 21S / RANGE: 32E / SECTION: 19 / LAT: 32.4713275 / LONG: -103.7120511 ( TVD: 9740 feet, MD: 26051 feet )

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** OXY USA INC.

WELL NAME & NO.: REGAL LAGER 31\_19 FED COM 3H

LOCATION: SEC31 T21S R32E -NMP

**COUNTY:** Lea County, New Mexico

# **Create COAs**

H <sub>2</sub> S	Cave / Karst	\ \ \	aste Prevention Rule
Present	Low		Vaste Minimization Plan
<b>Potash</b>		R-111-Q Design	
R-111-Q	4-String: Open 1st In	t x 2nd Annulus (ICP	2 below Relief Zone)
Wellhead Multibowl	☐ Liner ☐ FI	Casing 4-String Well uid Filled	Casing Clearance
<ul><li>✓ Flex Hose</li><li>✓ Break Testing</li></ul>	<ul><li>□ DV Tool</li><li>☑ Offline Cement</li></ul>	Cementing  ✓ Bradenhead  ✓ Open Annulus	☐ Echometer ☐ Pilot Hole
Capitan Reef	Special Requir  Water Disposal	ements <b>▽</b> COM	☐ Unit

# A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet all requirements from 43 CFR 3176, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

#### **B. CASING**

- 1. The 13-3/8 inch surface casing shall be set at approximately 864 feet (a minimum of 70' into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified

and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater (including 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 minimum required fill of cement behind the 10-3/4 inch 1st intermediate casing is **cement** to surface. If cement does not circulate, see B.1.a, c-d above.
  - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to the presence of cave/karst, Capitan Reef, or potash features.
- 3. The minimum required fill of cement behind the **7-5/8** inch 2nd intermediate casing is **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126 (base of the McNutt Potash ore zone.)
  - Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office.
  - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to the presence of cave/karst, Capitan Reef, or potash features.

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

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon.
- b. **Second stage:** Operator to squeeze and top-out. Cement to meet requirements listed for this casing string. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down **Intermediate 1 X Intermediate 2** annulus. Submit results to the BLM. If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

- Operator shall run a CBL from TD of the **Intermediate 2** casing to tieback requirements listed above after the second stage BH to verify TOC.
- A monitored open annulus will be incorporated during completion by leaving the above annulus un-cemented and monitored. Operator must follow <u>all</u> monitoring requirements listed within R-111-Q. Tieback shall be met within <u>180 days</u>.
- Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM.**

- Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.
- In the event of a casing failure during completion, the operator <u>must</u> contact the BLM at engineers (575-706-2779) and inspection staff (575-361-2822 Eddy County).
- 4. The minimum required fill of cement behind the **5-1/2** inch production casing is **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126 (base of the McNutt Potash ore zone.)
  - Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office.
  - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to the presence of cave/karst, Capitan Reef, or potash features.

#### C. PRESSURE CONTROL

- 1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi and intermediate casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) annular which shall be tested to 3500 psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.
- 2. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

# **BOPE Break Testing Variance**

# (Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

- BOPE Break Testing is ONLY permitted for hole sections with 5M MASP or less.
- The break test should involve a shell test that includes testing the upper pipe rams as proposed.

- Variance only pertains to the hole-sections in and shallower than the Wolfcamp formation. Break testing is NOT allowed when planning to penetrate the Penn group.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle in accordance with API STD 53.
- Any well control event while drilling require notification to the BLM Petroleum Engineer.
- A full BOPE test is required prior to drilling the first intermediate section.
- If a hole section tends to show more background gas than normal, please notify BLM Engineer prior to proceeding with break testing on the next well.
- The BLM PET is to be contacted 4 hours prior to BOPE tests.
  - Eddy County Petroleum Engineering Inspection Staff: (575) 361-2822
  - Lea County Petroleum Engineering Inspection Staff: (575) 689-5981
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172. Function test is NOT adequate when repairs or replacement of BOPE is needed
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **D. SPECIAL REQUIREMENT(S)**

# **Communitization Agreement:**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

# **Offline Cementing**

Offline cementing has been approved for **all hole sections**, **excluding production**. Contact the BLM prior to the commencement of any offline cementing procedure.

# **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)

# **Contact Lea County Petroleum Engineering Inspection Staff:**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

#### **Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM NM CFO DrillingNotifications@BLM.GOV**; (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. 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.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e.

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

#### **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.
- 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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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).
  - ii. 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.)

- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**KPI** 7/21/2025

**Tenaris** 

# API BTC -Special Clearance

 Coupling
 Pipe Body

 Grade: J55 (Casing)
 Grade: J55 (Casing)

 Body. Bright Green
 1st Band: Bright Green

 1st Band: White
 2nd Band: 

 2nd Band: 3rd Band: 

 3rd Band: 4th Band:

Outside Diameter	10.750 in.	Wall Thickness	0.350 in.	Grade	J55 (Casing)
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Туре	Casing
Connection OD Option	Special Clearance				

#### Pipe Body Data

Geometry			
Nominal OD	10.750 in.	Drift	9.894 in.
Wall Thickness	0.350 in.	Plain End Weight	38.91 lb/ft
Nominal Weight	40.500 lb/ft	OD Tolerance	API
Nominal ID	10.050 in.		

Performance	
SMYS	55,000 psi
Min UTS	75,000 psi
Body Yield Strength	629 x1000 lb
Min. Internal Yield Pressure	3130 psi
Collapse Pressure	1580 psi
Max. Allowed Bending	23 °/100 ft

#### **Connection Data**

Geometry		Perform
Thread per In	5 .	Joint Stre
Connection OD	11.250 in.	Coupling F
Hand Tight Stand Off	1 in. I	nternal Pr

700 x1000 lb
329 x1000 lb
3130 psi

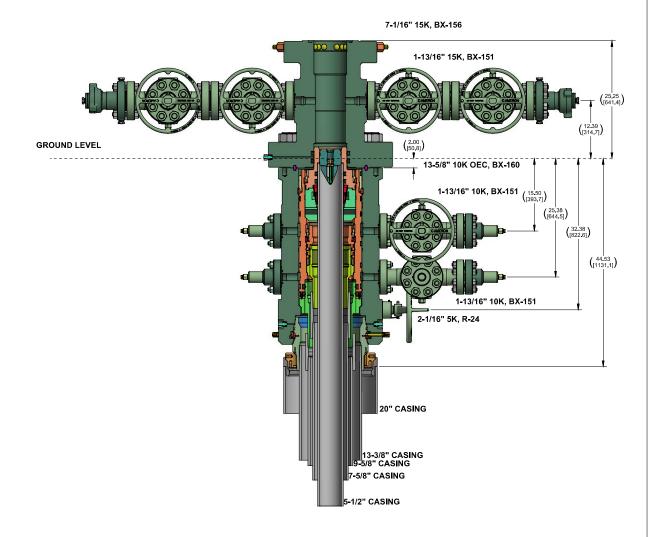
#### Notes

For products according to API Standards 5CT & 5B; Performance calculated considering API Technical Report 5C3 (Sections 9 & 10) equations.

For geometrical and steel grades combinations not considered in the API Standards 5CT and/or 5B; Performance calculations indirectly derived from API Technical Report 5C3 (Sections 9 & 10) equations.

Couplings OD are shown according to current API 5CT 10th Edition.

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CONFIDENTIAL					
SURFACE TREATMENT	DO NOT SC			CAMERON	SURFACE
	DRAVIN BY: A. SKLENKA	26 Apr 22	W.	A Schlumberger Company	SYSTEMS
MATERIAL & HEAT TREAT	A. SKLENKA	26 Apr 22	۸D	OXY APT NST 10K 3 STAGE	WELLBEAD
	A. SKLENKA	26 Apr 22		ANDARD / EMERGENC	Y SYSTEM
ESTIMATED 7 WEIGHT:	968.4 LBS INTIAL USE BM: 3614.4 KG   T# 7836394		1 or 1	LO-096232-6	2

# Oxy USA Inc. - Regal Lager 31\_19 Fed Com 3H Drill Plan

# 1. Geologic Formations

TVD of Target (ft):	10925	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	26875	Deepest Expected Fresh Water (ft):	806

# **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	806	806	
Salado	1048	1048	Salt
Marker Bed 126	2000	2000	Salt
Castile	2560	2560	Salt
Delaware	4550	4550	Oil/Gas/Brine
Bell Canyon	4626	4626	Oil/Gas/Brine
Cherry Canyon	5468	5468	Oil/Gas/Brine
Brushy Canyon	6740	6734	Losses
Bone Spring	8561	8527	Oil/Gas
Bone Spring 1st	9607	9558	Oil/Gas
Bone Spring 2nd	10304	10244	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

		IV	ID	T۱	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	17.5	0	866	0	866	13.375	54.5	J-55	ВТС
Salt	12.25	0	4550	0	4550	10.75	40.5	J-55	BTC-SC
Intermediate	9.875	0	10381	0	10318	7.625	26.4	L-80 HC	BTC
Production	6.75	0	16481	0	10925	5.5	20	P-110	Sprint-TC SC
Production	6.75	16481	26875	10925	10925	5.5	20	P-110	DWC/C-HT-IS

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

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All Casing SF Values will meet or exceed				
those below				
SF	SF	Body SF	Joint SF	
Collapse	Burst	Tension	Tension	
conapse		TO THE TOTAL		

# **Annular Clearance Variance Request**

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement. Please see Annular Clearance Variance attachment for further details.

	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).	
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-Q?	Y
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	Y
500' into previous casing?	ı
Is well located in R-111-Q 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?	

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	905	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	85	1.33	14.8	20%	4,050	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	638	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	455	1.68	13.2	5%	6,990	Circulate	Class C+Ret., Disper.
Int. 2	2	Intermediate 2S - Tail BH	1005	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	963	1.84	13.3	25%	9,881	Circulate	Class C+Ret.

# **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

# **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.

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#### 4. Pressure Control Equipment

	. – d a. b						
BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	✓	Tested to:	TVD Depth (ft) per Section:
		5M		Annular	✓	70% of working pressure	
				Blind Ram	✓		
12.25" Hole	13-5/8"	5M		Pipe Ram		250 psi / 5000 psi	4550
		IVIC		Double Ram	✓	250 psi / 5000 psi	
			Other*				
	13-5/8"	5M		Annular	✓	70% of working pressure	
		5M	Blind Ram		✓		10318
9.875" Hole			Pipe Ram			250 psi / 5000 psi	
				Double Ram	✓	250 psi / 5000 psi	
			Other*				
		5M		Annular	✓	100% of working pressure	
				Blind Ram	✓		
6.75" Hole	13-5/8"	10M		Pipe Ram		250 poi / 10000 poi	10925
		TUIVI		Double Ram	✓	250 psi / 10000 psi	
			Other*				

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.

#### **5M Annular BOP Request**

Per BLM's Memorandum No. NM-2017-008: Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all

<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 (intermediate and production) requirements as per the agreement reached in the OXY/BLM meeting on April 4th, 2025. 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.

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# 5. Mud Program

Section	Dep	th	Depth - TVD		Depth - TVD		Trino	Weight	Vissesitu	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss		
Surface	0	866	0	866	Water-Based Mud	8.6 - 8.8	40-60	N/C		
Intermediate 1	866	4550	866	4550	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C		
Intermediate 2	4550	10381	4550	10318	Water-Based or Oil- Based Mud	8.0 - 10.0	38-50	N/C		
Production	10381	26875	10318	10925	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 V 1/1VID TOLCO/ VISUAL WIGHTONING	

# **6. Logging and Testing Procedures**

Loggin	Logging, Coring and Testing.				
Vas	Will run GR from TD to surface (horizontal well – vertical portion of hole).				
Yes	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				

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

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7102 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	168°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.

ı	provid	Novided to the BEW.			
	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	Van
sections and production sections. The wellhead will be secured with a night cap whenever	Yes
the rig is not over the well.	
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,	Yes
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 rice	
Total Estimated Cuttings Volume: 2078 bbls	



#### **CONNECTION DATA SHEET**



#### **PIPE BODY PROPERTIES •**

Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Wall Thickness	0.361	in.
Minimum Wall Thickness	87.5	%
Nominal Weight (API)	20.00	lb/ft
Plain End Weight	19.83	lb/ft
Drift	4.653	in.
Grade Type	High Yie	ld
Grade Type Minimum Yield Strength	High Yie 125	ld <i>k</i> si
	<u> </u>	
Minimum Yield Strength	125	ksi
Minimum Yield Strength  Maximum Yield Strength	125 140	ksi ksi
Minimum Yield Strength  Maximum Yield Strength  Minimum Ultimate Tensile Strength	125 140 135	ksi ksi ksi

#### **CONNECTION PROPERTIES**

Connection Type	Semi-Pr	emium Threaded
Nominal Connection OD	5.900	in.
Nominal Connection ID	4.830	in.
Make-up Loss	3.973	in.
Coupling Length	8.296	in.
Tension Efficiency	100	% Pipe Body
Compression Efficiency	100	% Pipe Body
Internal Pressure Efficiency	100	% Pipe Body
External Pressure Efficiency	100	% Pipe Body

#### JOINT PERFORMANCES •

Tension Strength	729	klb
Compression Strength	729	klb
Internal Pressure Resistance	14,360	psi
<b>External Pressure Resistance</b>	12,090	psi
Maximum Bending, Structural	104	°/100 ft
Maximum Bending, with Sealability	30	°/100 ft
Maximum Load on Coupling Face	227	klb

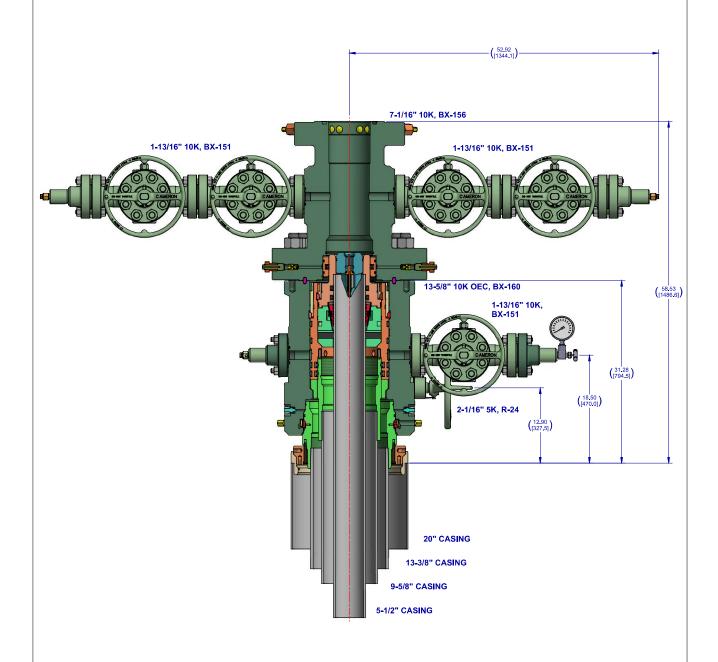
(4) Sealability rating demonstrated as per API RP 5C5 / ISO 13679



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Notes:

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

	CONFIDENTIAL								
SURFACE TREATMENT	DO NOT SO			CAMERON	SURFACE				
	D. GOTTUNG	18 Feb 22	W i	A Schlumberger Company	SYSTEMS				
MATERIAL & HEAT TREAT CHECKED BY: DAY D. GOTTUNG 18 Fe				OXY 13-5/8" 10K AD					
	D. GOTTUNG	18 Feb 22		16" X 10-3/4" X 7-5/8" X					
	5.088 LBS INTIAL USE BM: 73.748 KG		1 or 1	SD-053434-94-	12				

#### **5M Annluar BOP Variance Request**

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see Well Control Plan below.

# **Oxy Well Control Plan**

# A. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the >5M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

# Pilot hole and Lateral sections, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
HWDP	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Drill collars and MWD tools	4-3/4" - 5-1/2"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Mud Motor	4-3/4"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Production casing	5-1/2"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
ALL	0" - 13-5/8"	Annular	5M
Open-hole	6-3/4"	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.

HWDP = Heavy Weight Drill Pipe

MWD = Measurement While Drilling

#### **B.** Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The pressure at which control is swapped from the annular to another compatible ram will occur when the anticipated pressure is approaching or envisioned to exceed 70% of the 5M annular Rated Working Pressure (RWP) or 3500 PSI.

#### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

# General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position)
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan
  - e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram

# General Procedure While Running Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position).
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan.
  - e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

# General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
- 3. Confirm shut-in
- 4. Notify tool pusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

# General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drill pipe thru the stack.
  - a. Perform flow check, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper pipe ram
  - e. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
  - f. Confirm shut-in
  - g. Notify tool pusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
    - iv. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the compatible pipe ram
  - d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify tool pusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
    - iv. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.

- a. Sound alarm (alert crew)
- b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario
- c. If impossible to pick up high enough to pull the string clear of the stack
- d. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
- e. Space out drill string with tool joint just beneath the upper pipe ram
- f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
- g. Confirm shut-in
- h. Notify tool pusher/company representative
- i. Read and record the following:
  - i. SIDPP and SICP
  - ii. Pit gain
  - iii. Time
- j. Regroup and identify forward plan

# **BOP Break Testing Request**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached with OXY/BLM on April 4th, 2025.

BOPE Break Testing is ONLY permitted for 5M BOPE or less (utilizing a 10M BOPE system.)

Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.

BOP break test for the **intermediate or production** section under the following conditions:

- After a full BOP test is conducted.
- When skidding to drill an intermediate or production section which does not penetrate the deeper than the Wolf Camp formation (<5M).
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 3 CFR part 3170 Subpart 3172
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- In the event break testing is not utilized, then a full BOPE test would be conducted.
- If the kill line is broken prior to skid, two tests will be performed.
  - o 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
  - o 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.
  - o 1)Wellhead flange, co-flex hose, check valve, upper pipe rams

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 would perform BOP break testing on multi-well pads where multiple intermediate or production sections can be drilled and cased within the 21-day BOP test window
- 2) 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
- 3) 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
- 5) The choke line and kill line are reconnected
- 6) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed
- 7) A shell test is performed against the upper pipe rams testing all thlee breaks
- 8) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
- 9) 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)
- 10) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
- 11) 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
- 12) A second break test would only be done if the third hole section could be completed within the 21-day BOP test window
- 13) 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 9.
- 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

PRD NM DIRECTIONAL PLANS (NAD 1983) Regal Lager 31\_19 Fed Com Regal Lager 31\_19 Fed Com 3H

**ORIG HOLE** 

Plan: Permitting Plan

# **Standard Planning Report**

26 June, 2025

#### Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Regal Lager 31\_19 Fed Com

 Well:
 Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

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

Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

0.00

Using geodetic scale factor

357.37

Site Regal Lager 31\_19 Fed Com

 Site Position:
 Northing:
 520,226.48 usft
 Latitude:
 32.428649

 From:
 Map
 Easting:
 732,271.10 usft
 Longitude:
 -103.714504

Position Uncertainty: 0.00 ft Slot Radius: 13.200 in

Well Regal Lager 31\_19 Fed Com 3H

 Well Position
 +N/-S
 0.00 ft
 Northing:
 519,178.95 usf
 Latitude:
 32.425740

 +E/-W
 0.00 ft
 Easting:
 734,138.99 usf
 Longitude:
 -103.708470

Position Uncertainty 1.79 ft Wellhead Elevation: ft Ground Level: 3,635.00 ft

Grid Convergence: 0.34 °

Wellbore ORIG HOLE

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 HDGM\_FILE
 5/3/2023
 6.42
 60.08
 47,698.50000000

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

0.00

Plan Survey Tool Program Date 6/26/2025

Depth From Depth To

(ft) Survey (Wellbore) Tool Name Remarks

0.00 26,874.65 Permitting Plan (ORIG HOLE) B001Mc\_MWD+HRGM\_R5

0.00

MWD+HRGM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,687.00	0.00	0.00	5,687.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,686.83	10.00	308.08	6,681.76	53.67	-68.49	1.00	1.00	0.00	308.08	
10,481.12	10.00	308.08	10,418.43	460.00	-587.01	0.00	0.00	0.00	0.00	
11,324.68	90.56	359.63	10,924.60	1,034.68	-661.30	10.00	9.55	6.11	51.90	
26,874.68	90.56	359.63	10,772.74	16,583.62	-761.60	0.00	0.00	0.00	0.00	PBHL (Regal Lager

#### Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Regal Lager 31\_19 Fed Com
Well: Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

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North Reference:

Survey Calculation Method:

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Grid

Minimum Curvature

Design:	Permitting Pla								
Planned Survey									
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
2,000.00	0.00 0.00	0.00 0.00	2,000.00	0.00	0.00	0.00 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
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 2,800.00	0.00 0.00	0.00 0.00	2,700.00 2,800.00	0.00 0.00	0.00 0.00	0.00 0.00	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 3.300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00 3,400.00	0.00 0.00	0.00 0.00	3,400.00	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	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00

#### Planning Report

Database: Company: Project: HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Regal Lager 31\_19 Fed Com

 Well:
 Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:

North Reference: Survey Calculation Method: Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Orid

Minimum Curvature

Design:	Permitting Pla	an							
Planned Survey									
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)
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00 5,687.00	0.00 0.00	0.00 0.00	5,600.00 5,687.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
5,700.00	0.00	308.08	5,007.00	0.00	-0.01	0.00	1.00	1.00	0.00
5,800.00	1.13	308.08	5,799.99	0.69	-0.88	0.73	1.00	1.00	0.00
5,900.00	2.13	308.08	5.899.95	2.44	-3.12	2.58	1.00	1.00	0.00
6,000.00	3.13	308.08	5,999.84	5.27	-6.73	5.58	1.00	1.00	0.00
6,100.00	4.13	308.08	6,099.64	9.18	-11.71	9.70	1.00	1.00	0.00
6,200.00	5.13	308.08	6,199.31	14.16	-18.06	14.97	1.00	1.00	0.00
6,300.00	6.13	308.08	6,298.83	20.21	-25.79	21.37	1.00	1.00	0.00
6,400.00	7.13	308.08	6,398.16	27.33	-34.87	28.90	1.00	1.00	0.00
6,500.00	8.13	308.08	6,497.27	35.52	-45.33	37.56	1.00	1.00	0.00
6,600.00	9.13	308.08	6,596.14	44.77	-57.14	47.35	1.00	1.00	0.00
6,686.83 6,700.00	10.00 10.00	308.08 308.08	6,681.76 6,694.73	53.67 55.08	-68.49 -70.29	56.76 58.25	1.00 0.00	1.00 0.00	0.00 0.00
6,800.00 6,900.00	10.00 10.00	308.08 308.08	6,793.21 6,891.70	65.79 76.50	-83.96 -97.62	69.57 80.90	0.00 0.00	0.00 0.00	0.00 0.00
7,000.00	10.00	308.08	6,990.18	87.21	-97.02 -111.29	92.22	0.00	0.00	0.00
7,100.00	10.00	308.08	7.088.66	97.92	-124.95	103.55	0.00	0.00	0.00
7,200.00	10.00	308.08	7,187.14	108.63	-138.62	114.87	0.00	0.00	0.00
7,300.00	10.00	308.08	7,285.62	119.33	-152.29	126.20	0.00	0.00	0.00
7,400.00	10.00	308.08	7,384.10	130.04	-165.95	137.52	0.00	0.00	0.00
7,500.00	10.00	308.08	7,482.58	140.75	-179.62	148.84	0.00	0.00	0.00
7,600.00	10.00	308.08	7,581.07	151.46	-193.28	160.17	0.00	0.00	0.00
7,700.00	10.00	308.08	7,679.55	162.17	-206.95	171.49	0.00	0.00	0.00
7,800.00	10.00	308.08	7,778.03	172.88	-220.62	182.82	0.00	0.00	0.00
7,900.00	10.00	308.08	7,876.51	183.59	-234.28	194.14	0.00	0.00	0.00
8,000.00	10.00 10.00	308.08 308.08	7,974.99	194.30 205.01	-247.95 204.64	205.47 216.79	0.00 0.00	0.00	0.00
8,100.00 8,200.00	10.00	308.08	8,073 <b>.</b> 47 8,171 <b>.</b> 95	215.71	-261.61 -275.28	218.79	0.00	0.00 0.00	0.00 0.00
8,300.00	10.00	308.08	8,270.43	226.42	-288.94	239.44	0.00	0.00	0.00
8,400.00	10.00	308.08	8,368.92	237.13	-302.61	250.77	0.00	0.00	0.00
8,500.00	10.00	308.08	8,467.40	247.84	-316.28	262.09	0.00	0.00	0.00
8,600.00	10.00	308.08	8,565.88	258.55	-329.94	273.41	0.00	0.00	0.00
8,700.00	10.00	308.08	8,664.36	269.26	-343.61	284.74	0.00	0.00	0.00
8,800.00	10.00	308.08	8,762.84	279.97	-357.27	296.06	0.00	0.00	0.00
8,900.00	10.00	308.08	8,861.32	290.68	-370.94	307.39	0.00	0.00	0.00
9,000.00 9,100.00	10.00 10.00	308.08 308.08	8,959.80 9,058.28	301.39 312.09	-384.61 -398.27	318.71 330.04	0.00 0.00	0.00 0.00	0.00 0.00
9,100.00	10.00	308.08	9,058.28 9,156.77	312.09	-398.27 -411.94	330.04 341.36	0.00	0.00	0.00
9,300.00		308.08	9,255.25			352.69	0.00		0.00
9,300.00	10.00 10.00	308.08 308.08	9,255.25 9,353.73	333.51 344.22	-425.60 -439.27	352.69 364.01	0.00	0.00 0.00	0.00 0.00
9,500.00	10.00	308.08	9,353.73	354.93	-459.27 -452.93	375.33	0.00	0.00	0.00
9,600.00	10.00	308.08	9,550.69	365.64	-466 <b>.</b> 60	386.66	0.00	0.00	0.00
9,700.00	10.00	308.08	9,649.17	376.35	-480.27	397.98	0.00	0.00	0.00
9,800.00	10.00	308.08	9,747.65	387.06	-493.93	409.31	0.00	0.00	0.00
9,900.00	10.00	308.08	9,846.14	397.76	-507.60	420.63	0.00	0.00	0.00
10,000.00 10,100.00	10.00 10.00	308.08 308.08	9,944 <b>.</b> 62 10,043 <b>.</b> 10	408.47 419.18	-521.26 -534.93	431.96 443.28	0.00 0.00	0.00 0.00	0.00 0.00
10,100.00	10.00	308.08	10,043.10	419.18	-534.93 -548.60	443.28 454.61	0.00	0.00	0.00
10,300.00	10.00	308.08	10,240.06	440.60	-562.26	465.93	0.00	0.00	0.00
10,300.00	10.00	308.08	10,240.06	440.60 451.31	-562.26 -575.93	465.93 477.26	0.00	0.00	0.00
10,481.12	10.00	308.08	10,418.43	460.00	-587.01	486.44	0.00	0.00	0.00
10,500.00	11.26	315.71	10,436.99	462.33	-589.59	488.89	10.00	6.69	40.41
10,600.00	19.67	336.87	10,533.35	484.85	-603.06	512.01	10.00	8.41	21.15

#### Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Regal Lager 31\_19 Fed Com
Well: Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Grid

esign:	Permitting Pla	an							
Planned Survey									
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)
10,700.00	29.09	345.20	10,624.36	523.93	-615.91	551.64	10.00	9.41	8.33
10,800.00 10.900.00	38.78 48.58	349.67 352.56	10,707.24 10,779.48	578.38 646.54	-627.77 -638.26	606.57 675.14	10.00 10.00	9.69 9.80	4.47 2.90
11,000.00	58.43	354.69	10,779.46	726.33	-647.08	755.25	10.00	9.85	2.13
11,100.00	68.31	356.41	10,883.66	815.35	-653.95	844.49	10.00	9.88	1.72
11,200.00	78.21	357.90	10,912.42	910.87	-658.66	940.13	10.00	9.90	1.49
11,300.00	88.11	359.29	10,924.32	1,010.00	-661.07	1,039.27	10.00	9.90	1.39
11,324.68	90.56	359.63	10,924.60	1,034.68	-661.30	1,063.93	10.00	9.91	1.37
11,400.00	90.56	359.63	10,923.87	1,109.99	-661.79	1,139.19	0.00	0.00	0.00
11,500.00	90.56	359.63	10,922.89	1,209.99	-662.43	1,239.10	0.00	0.00	0.00
11,600.00	90.56	359.63	10,921.91	1,309.98	-663.08	1,339.02	0.00	0.00	0.00
11,700 <b>.</b> 00 11,800 <b>.</b> 00	90.56 90.56	359.63 359.63	10,920.94 10,919.96	1,409.97	-663.72 -664.37	1,438.94	0.00 0.00	0.00 0.00	0.00 0.00
11,800.00	90.56	359.63	10,919.96	1,509.97 1.609.96	-665.01	1,538.86 1,638.77	0.00	0.00	0.00
12,000.00	90.56	359.63	10,918.93	1,709.95	-665.66	1,738.69	0.00	0.00	0.00
12,100.00	90.56	359.63	10,917.03	1,809.95	-666.30	1,838.61	0.00	0.00	0.00
12,100.00	90.56	359.63	10,917.05	1,909.94	-666.95	1,938.53	0.00	0.00	0.00
12,300.00	90.56	359.63	10,915.08	2,009.93	-667.59	2,038.44	0.00	0.00	0.00
12,400.00	90.56	359.63	10,914.10	2,109.93	-668.24	2,138.36	0.00	0.00	0.00
12,500.00	90.56	359.63	10,913.12	2,209.92	-668.88	2,238.28	0.00	0.00	0.00
12,600.00	90.56	359.63	10,912.15	2,309.91	-669.53	2,338.20	0.00	0.00	0.00
12,700.00	90.56	359.63	10,911.17	2,409.91	-670.17	2,438.11	0.00	0.00	0.00
12,800.00	90.56	359.63	10,910.19	2,509.90	-670.82	2,538.03	0.00	0.00	0.00
12,900.00	90.56	359.63	10,909.22	2,609.89	-671.46	2,637.95	0.00	0.00	0.00
13,000.00	90.56	359.63	10,908 <b>.</b> 24	2,709.89	-672.11	2,737.87	0.00	0.00	0.00
13,100.00	90.56	359.63	10,907.26	2,809.88	-672.75	2,837.78	0.00	0.00	0.00
13,200.00	90.56 90.56	359.63 359.63	10,906.29 10,905.31	2,909.87 3,009.86	-673.40 -674.04	2,937.70 3,037.62	0.00 0.00	0.00 0.00	0.00 0.00
13,300.00 13,400.00	90.56	359.63	10,903.31	3,109.86	-674.04 -674.69	3,037.62 3,137.54	0.00	0.00	0.00
13,500.00	90.56	359.63	10,903.36	3,209.85	-675.33	3,237.45	0.00	0.00	0.00
13,600.00	90.56	359.63	10,902.38	3,309.84	-675.98	3,337.37	0.00	0.00	0.00
13,700.00	90.56	359.63	10,901.40	3,409.84	-676.62	3,437.29	0.00	0.00	0.00
13,800.00	90.56	359.63	10,900.43	3,509.83	-677.27	3,537.21	0.00	0.00	0.00
13,900.00	90.56	359.63	10,899.45	3,609.82	-677.91	3,637.12	0.00	0.00	0.00
14,000.00	90.56	359.63	10,898.47	3,709.82	-678.56	3,737.04	0.00	0.00	0.00
14,100.00	90.56	359.63	10,897.50	3,809.81	-679.20	3,836.96	0.00	0.00	0.00
14,200.00	90.56	359.63	10,896.52	3,909.80	-679.85	3,936.88	0.00	0.00	0.00
14,300.00	90.56	359.63	10,895.54	4,009.80	-680.49	4,036.79	0.00	0.00	0.00
14,400.00 14,500.00	90.56 90.56	359.63 359.63	10,894.57 10,893.59	4,109.79 4,209.78	-681.14 -681.78	4,136.71 4,236.63	0.00 0.00	0.00 0.00	0.00 0.00
14,600.00	90.56	359.63	10,892.61	4,309.78	-682.43	4,336.55	0.00	0.00	0.00
14,700.00	90.56	359.63	10,891.64	4,309.76 4,409.77	-683.07	4,336.33	0.00	0.00	0.00
14,800.00	90.56	359.63	10,890.66	4,509.76	-683.72	4,536.38	0.00	0.00	0.00
14,900.00	90.56	359.63	10,889.68	4,609.76	-684.36	4,636.30	0.00	0.00	0.00
15,000.00	90.56	359.63	10,888.71	4,709.75	-685.01	4,736.22	0.00	0.00	0.00
15,100.00	90.56	359.63	10,887.73	4,809.74	-685.65	4,836.13	0.00	0.00	0.00
15,200.00	90.56	359.63	10,886.75	4,909.73	-686.30	4,936.05	0.00	0.00	0.00
15,300.00	90.56	359.63	10,885.78 10.884.80	5,009.73 5.109.72	-686.94	5,035.97	0.00	0.00	0.00
15,400.00 15,500.00	90.56 90.56	359.63 359.63	10,884.80 10,883.82	5,109.72 5,209.71	-687.59 -688.23	5,135.89 5,235.80	0.00 0.00	0.00 0.00	0.00 0.00
15,600.00	90.56	359.63	10,882.85	5,309.71	-688.88	5,335.72	0.00	0.00	0.00
15,700.00	90.56	359.63	10,881.87	5,409.70	-689.52	5,435.64	0.00	0.00	0.00
15,800.00	90.56	359.63	10,880.89	5,509.69	-690.17	5,535.55	0.00	0.00	0.00
15,900.00	90.56	359.63	10,879.92	5,609.69	-690.81	5,635.47	0.00	0.00	0.00
16,000.00	90.56	359.63	10,878.94	5,709.68	-691.46	5,735.39	0.00	0.00	0.00

#### Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Regal Lager 31\_19 Fed Com
Well: Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Grid

Design:	Permitting Plan								
Planned Survey									
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)
16,100.00	90.56	359.63	10,877.97	5,809.67	-692.10	5,835.31	0.00	0.00	0.00
16,200.00	90.56	359.63	10,876.99	5,909.67	-692.75	5,935.22	0.00	0.00	0.00
16,300.00	90.56	359.63	10,876.01	6,009.66	-693.39	6,035.14	0.00	0.00	0.00
16,400.00	90.56	359.63	10,875.04	6,109.65	-694.04	6,135.06	0.00	0.00	0.00
16,500.00	90.56	359.63	10,874.06	6,209.65	-694.68	6,234.98	0.00	0.00	0.00
16,600.00	90.56	359.63	10,873.08	6,309.64	-695.33	6,334.89	0.00	0.00	0.00
16,700.00	90.56	359.63	10,872.11	6,409.63	-695.97	6,434.81	0.00	0.00	0.00
16,800.00	90.56	359.63	10,871.13	6,509.63	-696.62	6,534.73	0.00	0.00	0.00
16,900.00	90.56	359.63	10,870.15	6,609.62	-697.26	6,634.65	0.00	0.00	0.00
17,000.00	90.56	359.63	10,869.18	6,709.61	-697.91	6,734.56	0.00	0.00	0.00
17,100.00	90.56	359.63	10,868.20	6,809.60	-698.55	6,834.48	0.00	0.00	0.00
17,200.00	90.56	359.63	10,867.22	6,909.60	-699.20	6,934.40	0.00	0.00	0.00
17,300.00	90.56	359.63	10,866.25	7,009.59	-699.84	7,034.32	0.00	0.00	0.00
17,400.00	90.56	359.63	10,865.27	7,109.58	-700.49	7,134.23	0.00	0.00	0.00
17,500.00	90.56	359.63	10,864.29	7,209.58	-701.13	7,234.15	0.00	0.00	0.00
17,600.00	90.56	359.63	10,863.32	7,309.57	-701.78	7,334.07	0.00	0.00	0.00
17,700.00	90.56	359.63	10,862.34	7,409.56	-702.42	7,433.99	0.00	0.00	0.00
17,800.00 17,900.00	90.56 90.56	359.63 359.63	10,861.36 10,860.39	7,509 <b>.</b> 56 7,609 <b>.</b> 55	-703.07 -703.71	7,533.90 7,633.82	0.00 0.00	0.00 0.00	0.00 0.00
18,000.00	90.56	359.63	10,859.41	7,709.54	-703.71	7,733.74	0.00	0.00	0.00
18,100.00	90.56 90.56	359.63 359.63	10,858.43 10,857.46	7,809 <b>.</b> 54 7,909 <b>.</b> 53	-705.00 -705.65	7,833.66 7,933.57	0.00 0.00	0.00 0.00	0.00 0.00
18,200.00 18,300.00	90.56	359.63	10,857.46	7,909.53 8,009.52	-705.65 -706.29	7,933.57 8,033.49	0.00	0.00	0.00
18,400.00	90.56	359.63	10,855.50	8,109.52	-706.23 -706.94	8,133.41	0.00	0.00	0.00
18,500.00	90.56	359.63	10,854.53	8,209.51	-707.58	8,233.33	0.00	0.00	0.00
18,600.00	90.56	359.63	10,853.55	8.309.50	-708.23	8,333.24	0.00	0.00	0.00
18,700.00	90.56	359.63	10,852,57	8,409,49	-708.87	8,433.16	0.00	0.00	0.00
18,800.00	90.56	359.63	10,851.60	8,509.49	-709.52	8,533.08	0.00	0.00	0.00
18,900.00	90.56	359.63	10,850.62	8,609.48	-710.16	8,633.00	0.00	0.00	0.00
19,000.00	90.56	359.63	10,849.64	8,709.47	-710.81	8,732.91	0.00	0.00	0.00
19,100.00	90.56	359.63	10,848,67	8,809,47	-711.45	8,832.83	0.00	0.00	0.00
19,200.00	90.56	359.63	10,847.69	8,909.46	-712.10	8,932.75	0.00	0.00	0.00
19,300.00	90.56	359.63	10,846.71	9,009.45	-712.74	9,032.67	0.00	0.00	0.00
19,400.00	90.56	359.63	10,845.74	9,109.45	-713.39	9,132.58	0.00	0.00	0.00
19,500.00	90.56	359.63	10,844.76	9,209.44	-714.03	9,232.50	0.00	0.00	0.00
19,600.00	90.56	359.63	10,843.78	9,309.43	-714.68	9,332.42	0.00	0.00	0.00
19,700.00	90.56	359.63	10,842.81	9,409.43	-715.32	9,432.34	0.00	0.00	0.00
19,800.00	90.56	359.63	10,841.83	9,509.42	-715.97	9,532.25	0.00	0.00	0.00
19,900.00 20,000.00	90.56 90.56	359.63 359.63	10,840.85 10,839.88	9,609 <b>.</b> 41 9,709 <b>.</b> 41	-716.61 -717.26	9,632 <b>.</b> 17 9,732 <b>.</b> 09	0.00 0.00	0.00 0.00	0.00 0.00
20,100.00	90.56	359.63	10,838.90	9,809.40	-717.90	9,832.01	0.00	0.00	0.00
20,200.00 20,300.00	90.56	359.63	10,837.92	9,909.39	-718.55 -710.10	9,931.92	0.00	0.00 0.00	0.00
20,300.00	90.56 90.56	359.63 359.63	10,836.95 10.835.97	10,009.39 10,109.38	-719.19 -719.84	10,031.84 10,131.76	0.00 0.00	0.00	0.00 0.00
20,400.00	90.56	359.63	10,834.99	10,109.38	-719.64 -720.48	10,131.76	0.00	0.00	0.00
			10.834.02	10.309.36					
20,600.00 20,700.00	90.56 90.56	359.63 359.63	10,834.02	10,309.36	-721.13 -721.77	10,331.59 10,431.51	0.00 0.00	0.00 0.00	0.00 0.00
20,700.00	90.56	359.63	10,832.06	10,409.35	721.77	10,431.51	0.00	0.00	0.00
20,900.00	90.56	359.63	10,831.09	10,609.34	-723.06	10,631.35	0.00	0.00	0.00
21,000.00	90.56	359.63	10,830.11	10,709.34	-723.71	10,731.26	0.00	0.00	0.00
21.100.00	90.56	359.63	10,829.13	10,809.33	-724.35	10,831.18	0.00	0.00	0.00
21,200.00	90.56	359.63	10,828.16	10,909.32	-725.00	10,931.10	0.00	0.00	0.00
21,300.00	90.56	359.63	10,827.18	11,009.32	-725.64	11,031.02	0.00	0.00	0.00
21,400.00	90.56	359.63	10,826.20	11,109.31	-726.29	11,130.93	0.00	0.00	0.00
21,500.00	90.56	359.63	10,825.23	11,209.30	-726.93	11,230.85	0.00	0.00	0.00

#### Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Regal Lager 31\_19 Fed Com
Well: Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

Crid

Design:	Permitting Pla	an							
Planned Survey									
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)
21,600.00 21,700.00 21,800.00	90.56 90.56 90.56	359.63 359.63 359.63	10,824.25 10,823.27 10,822.30	11,309.30 11,409.29 11,509.28 11.609.28	-727.58 -728.22 -728.87	11,330.77 11,430.69 11,530.60	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00
21,900.00 22,000.00	90.56 90.56	359.63 359.63	10,821.32 10,820.35	11,709.27	-729.51 -730.16	11,630.52 11,730.44	0.00 0.00	0.00 0.00	0.00
22,100.00	90.56	359.63	10,819.37	11,809.26	-730.80	11,830.36	0.00	0.00	0.00
22,200.00	90.56	359.63	10,818.39	11,909.26	-731.45	11,930.27	0.00	0.00	0.00
22,300.00	90.56	359.63	10,817.42	12,009.25	-732.09	12,030.19	0.00	0.00	0.00
22,400.00	90.56	359.63	10,816.44	12,109.24	-732.74	12,130.11	0.00	0.00	0.00
22,500.00	90.56	359.63	10,815.46	12,209.23	-733.38	12,230.02	0.00	0.00	0.00
22,600.00	90.56	359.63	10,814.49	12,309.23	-734.03	12,329.94	0.00	0.00	0.00
22,700.00	90.56	359.63	10,813.51	12,409.22	-734.67	12,429.86	0.00	0.00	0.00
22,800.00	90.56	359.63	10,812.53	12,509.21	-735.32	12,529.78	0.00	0.00	0.00
22,900.00	90.56	359.63	10,811.56	12,609.21	-735.96	12,629.69	0.00	0.00	0.00
23,000.00	90.56	359.63	10,810.58	12,709.20	-736.61	12,729.61	0.00	0.00	0.00
23,100.00	90.56	359.63	10,809.60	12,809.19	-737.25	12,829.53	0.00	0.00	0.00
23,200.00	90.56	359.63	10,808.63	12,909.19	-737.90	12,929.45	0.00	0.00	0.00
23,300.00	90.56	359.63	10,807.65	13,009.18	-738.54	13,029.36	0.00	0.00	0.00
23,400.00	90.56	359.63	10,806.67	13,109.17	-739.19	13,129.28	0.00	0.00	0.00
23,500.00	90.56 90.56	359.63 359.63	10,805.70	13,209.17 13,309.16	-739.83 -740.48	13,229.20 13,329.12	0.00	0.00	0.00
23,700.00	90.56	359.63	10,803.74	13,409.15	-741.12	13,429.03	0.00	0.00	0.00
23,800.00	90.56	359.63	10,802.77	13,509.15	-741.77	13,528.95	0.00	0.00	0.00
23,900.00	90.56	359.63	10,801.79	13,609.14	-742.41	13,628.87	0.00	0.00	0.00
24,000.00	90.56	359.63	10,800.81	13,709.13	-743.06	13,728.79	0.00	0.00	0.00
24,100.00	90.56	359.63	10,799.84	13,809.13	-743.70	13,828.70	0.00	0.00	0.00
24,200.00	90.56	359.63	10,798.86	13,909.12	-744.35	13,928.62	0.00	0.00	0.00
24,300.00	90.56	359.63	10,797.88	14,009.11	-744.99	14,028.54	0.00	0.00	0.00
24,400.00	90.56	359.63	10,796.91	14,109.10	-745.64	14,128.46	0.00	0.00	0.00
24,500.00	90.56	359.63	10,795.93	14,209.10	-746.28	14,228.37	0.00	0.00	0.00
24,600.00	90.56	359.63	10,794,95	14,309.09	-746.93	14,328.29	0.00	0.00	0.00
24,700.00	90.56	359.63	10,793,98	14,409.08	-747.57	14,428.21	0.00	0.00	0.00
24,800.00	90.56	359.63	10,793,00	14,509.08	-748.22	14,528.13	0.00	0.00	0.00
24,900.00	90.56	359.63	10,792,02	14,609.07	-748.86	14,628.04	0.00	0.00	0.00
25,000.00	90.56	359.63	10,791,05	14,709.06	-749.51	14,727.96	0.00	0.00	0.00
25,100.00	90.56	359.63	10,790.07	14,809.06	-750.15	14,827.88	0.00	0.00	0.00
25,200.00	90.56	359.63	10,789.09	14,909.05	-750.80	14,927.80	0.00	0.00	0.00
25,300.00	90.56	359.63	10,788.12	15,009.04	-751.44	15,027.71	0.00	0.00	0.00
25,400.00	90.56	359.63	10,787.14	15,109.04	-752.09	15,127.63	0.00	0.00	0.00
25,500.00	90.56	359.63	10,786.16	15,209.03	-752.73	15,227.55	0.00	0.00	0.00
25,600.00	90.56	359.63	10,785.19	15,309.02	-753.38	15,327.47	0.00	0.00	0.00
25,700.00	90.56	359.63	10,784.21	15,409.02	-754.02	15,427.38	0.00	0.00	0.00
25,800.00	90.56	359.63	10,783.23	15,509.01	-754.67	15,527.30	0.00	0.00	0.00
25,900.00	90.56	359.63	10,782.26	15,609.00	-755.31	15,627.22	0.00	0.00	0.00
26,000.00	90.56	359.63	10,781.28	15,709.00	-755.96	15,727.14	0.00	0.00	0.00
26,100.00	90.56	359.63	10,780.30	15,808.99	-756.60	15,827.05	0.00	0.00	0.00
26,200.00	90.56	359.63	10,779.33	15,908.98	-757.25	15,926.97	0.00	0.00	0.00
26,300.00	90.56	359.63	10,778.35	16,008.97	-757.89	16,026.89	0.00	0.00	0.00
26,400.00	90.56	359.63	10,777.37	16,108.97	-758.54	16,126.81	0.00	0.00	0.00
26,500.00	90.56	359.63	10,776.40	16,208.96	-759.18	16,226.72	0.00	0.00	0.00
26,600.00	90.56	359.63	10,775.42	16,308.95	-759.83	16,326.64	0.00	0.00	0.00
26,700.00	90.56	359.63	10,774.44	16,408.95	-760.47	16,426.56	0.00	0.00	0.00
26,800.00	90.56	359.63	10,773.47	16,508.94	-761.12	16,526.48	0.00	0.00	0.00
26,874.68	90.56	359.63	10,772.74	16,583.62	-761.60	16,601.09	0.00	0.00	0.00

#### **Planning Report**

Database: HOPSPP

Company: ENGINEERING DESIGNS

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Regal Lager 31\_19 Fed Com

 Well:
 Regal Lager 31\_19 Fed Com 3H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Regal Lager 31\_19 Fed Com 3H

RKB=25' @ 3660.00ft RKB=25' @ 3660.00ft

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 (Regal Lager - plan misses targe - Point	0.00 t center by 80	0.00 0.01ft at 0.0	0.00 Off MD (0.0	456.31 0 TVD, 0.00 I	-657.11 N, 0.00 E)	519,635.24	733,481.91	32.427004	-103.710591
PBHL (Regal Lager - plan hits target ce - Point	0.00 enter	0.01	10,772.74	16,583.62	-761.60	535,761.73	733,377.43	32.471332	-103.710625
FTP (Regal Lager - plan misses targe	0.00 t center by 27		10,926.34 51.85ft MD	856.32 (10900.64 TV	-660.15 /D, 864.24 N,	520,035.23 -656.67 E)	733,478.87	32.428104	-103.710593

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	806.00	806.00	RUSTLER			
	1,048.00	1,048.00	SALADO			
	2,000.00	2,000.00	MARKER BED 126		0.00	
	2,560.00	2,560.00	CASTILE			
	4,550.00	4,550.00	DELAWARE			
	4,626.00	4,626.00	BELL CANYON			
	5,468.00	5,468.00	CHERRY CANYON			
	6,739.87	6,734.00	BRUSHY CANYON			
	8,560.52	8,527.00	BONE SPRING			
	9,607.42	9,558.00	BONE SPRING 1ST			
	10,304.00	10,244.00	BONE SPRING 2ND			

Plan Annotations				
Measured Depth (ft)	· · · · · · · · · · · · · · · · · · ·		+E/-W	Comment
5,687.0	0 5,687.00	0.00	0.00	Build 1°/100'
6,686.8	3 6,681.76	53.67	-68.49	Hold 10° Tangent
10,481.1	2 10,418.43	460.00	-587.01	KOP, Build & Turn 10°/100'
11,034.3	5 10,856.00	756.00	-649.67	PPP-1 Cross
11,324.6	8 10,924.60	1,034.68	-661.30	Landing Point
16,328.3	4 10,875.74	6,038.00	-693.58	PPP-2 Cross
18,969.5	2 10,849.94	8,679.00	-710.61	PPP-3 Cross
20,292.6	1 10,837.02	10,002.00	-719.15	PPP-4 Cross
24,251.8	9 10,798.35	13,961.00	-744.68	PPP-5 Cross
26,874.6	8 10,772.74	16,583.62	-761.60	TD at 26874.68' MD

# Oxy USA Inc. - Regal Lager 31\_19 Fed Com 3H Drill Plan

#### 1. Geologic Formations

TVD of Target (ft	10925	Pilot Hole Depth (ft):	
Total Measured Depth (ft	): 26875	Deepest Expected Fresh Water (ft):	806

#### **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	806	806	
Salado	1048	1048	Salt
Marker Bed 126	2000	2000	Salt
Castile	2560	2560	Salt
Delaware	4550	4550	Oil/Gas/Brine
Bell Canyon	4626	4626	Oil/Gas/Brine
Cherry Canyon	5468	5468	Oil/Gas/Brine
Brushy Canyon	6740	6734	Losses
Bone Spring	8561	8527	Oil/Gas
Bone Spring 1st	9607	9558	Oil/Gas
Bone Spring 2nd	10304	10244	Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn		- 1 1	Oil/Gas

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

#### 2. Casing Program

		IV	ID	T۱	TVD				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	17.5	0	866	0	866	13.375	54.5	J-55	ВТС
Intermediate	9.875	0	10381	0	10318	7.625	26.4	L-80 HC	ВТС
Production	6.75	0	16481	0	10925	5.5	20	P-110	Sprint-TC SC
Production	6.75	16481	26875	10925	10925	5.5	20	P-110	DWC/C-HT-IS

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

\*Oxy requests the option to run the 10.75" Intermediate I as a contingency string to be run only if severe hole conditions dictate an additional casing string necessary. This would make the planned 7.625" / 7.827" Casing the Intermediate II.

\*\*If 4S Contingency is not required, Oxy requests permission to transition from 12.25" to 9.875" Intermediate I at 1st trip point below Brushy top (estimated top in formation table above). Cement volumes will be updated on C103 submission.

I	All Casing SF Values will meet or exceed							
	those below							
	SF SF Body SF Joint SF							
	Collapse	Burst	Tension	Tension				
	1.00 1.100 1.4 1.4							

#### **Annular Clearance Variance Request**

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement. Please see Annular Clearance Variance attachment for further details.

	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).	ı				
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y				
the collapse pressure rating of the casing?					
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-Q?	Y				
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	Y				
500' into previous casing?	1				
Is well located in R-111-Q 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?					

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	905	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	455	1.68	13.2	5%	6,990	Circulate	Class C+Ret., Disper.
Int.	2	Intermediate 2S - Tail BH	1240	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod	1	Production - Tail	963	1.8/1	13.3	25%	9.881	Circulate	Class C+Ret

#### **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

#### **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.

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#### 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре	<b>✓</b>	Tested to:	Deepest TVD Depth (ft) per Section:	
		5M	Annular	✓	70% of working pressure		
			Blind Ram	✓			
9.875" Hole	13-5/8"	5M	Pipe Ram		250 psi / 5000 psi	10318	
		SIVI	Double Ram	✓	230 psi / 3000 psi		
			Other*				
		5M	Annular	✓	100% of working pressure		
			Blind Ram	✓			
6.75" Hole	13-5/8"	10M	Pipe Ram		250 psi / 10000 psi	10925	
		TOW	Double Ram	✓	230 psi / 10000 psi		
			Other*				

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.

#### **5M Annular BOP Request**

Per BLM's Memorandum No. NM-2017-008: Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all

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

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 (intermediate and production) requirements as per the agreement reached in the OXY/BLM meeting on April 4th, 2025. 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.

#### 5. Mud Program

Section	Depth -	MD	Depth -	TVD	Tymo	Weight	Viscosity	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	866	0	866	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	866	10381	866	10318	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	10381	26875	10318	10925	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 V 1/ IVID TOLCO/ VISUAL IVIOLITIONING	l

#### **6. Logging and Testing Procedures**

Loggi	ng, Coring and Testing.
Vac	Will run GR from TD to surface (horizontal well – vertical portion of hole).
Yes	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

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

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7102 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	168°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.

p	
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	Van
sections and production sections. The wellhead will be secured with a night cap whenever	Yes
the rig is not over the well.	
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,	Yes
the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the	
attached document for information on the anuddor ria	
Total Estimated Cuttings Volume: 1890 bbls	

ce	ived by	OCD: 7/	31/202
	C-1	02	
	-	<del></del>	
	Submit	Electronic	ally
		CD Permitti	
	API Nun	nber	
	30-02	5-54898	
	Property	Code	
	OGRID	No.	
		16696	
	Surface	Owner:	State
	UL	Section	Townsh
	Α	06	22
	UL	Section	Townsh

#### State of New Mexico Energy, Minerals, & Natural Resources Department OIL CONSERVATION DIVISION

	Revised July 9, 2024 PAGE 1 OF 2
	Initial Submittal
Submittal Type:	X Amended Report
Type.	□ A a Dwillad

As Drilled

					WELL LOCATION	ON INFORMATION			
API Nu	nber		Pool Code			Pool Name	NA OLIVE DOL	UE ODDIN	•
	25-54898		5695			BILBREY	BASIN; BOI		G
Propert	y Code		Property Na	me				Well Number	
					REGAL LAGER	31_19 FED COM		3Н	
OGRID	No.		Operator Na	ime				Ground Level Elevat	ion
	16696	Ó			OXY U	JSA INC.		3635	5'
Surfac	e Owner: [	State	Fee 🗌 Tr	ibal 🔽	Federal	Mineral Owner:	State Fee	Tribal 🗹 Federal	-,
					Surface	Location			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
A	06	22S	32E	1	763' FNL	947' FEL	32.42573954	-103.70846982	LEA
		I.		1	Pottom U	ole Location			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
В	19	21S	32E		20' FNL	1600' FEL	32.47133197	-103.71062449	LEA
				<u> </u>					
Dedicat	ed Acres	Infill or Defin	ing Well	I Definin	g Well API	Overlapping Spacing Uni	t (V/N)	Consolidation Code	
	60.00	DEFIN	15		NDING	Y	(1/11)	N/A	
			iling		IDING	<u> </u>			
Order	Numbers: N	/A				Well setbacks are unde	r Common Ownership	: Yes V	)
						Point (KOP)			,,
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
В	06	22S	32E	2	300' FNL	1600' FEL	32.42700428	-103.71059067	LEA
					First Take	Point (FTP)			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
О	31	21S	32E		100' FSL	1600' FEL	32.42810377	-103.71059296	LEA
		•		•	Last Take	Point (LTP)	•		
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
В	19	21S	32E		100' FNL	1600' FEL	32.47111207	-103.71062428	LEA
	•		•		•	•			
		of Uniform Inter	est	C	- II.:'4 T V vv ·		Ground Floor I	Elevation	
N/A				Spacin	g Unit Type: X Horiz	zontal Vertical		3635'	
	TOP OF	RTIFICATIO	NIC			SURVEYOR CERT	TIELCATIONS		

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

#### Melissa Guidry 07/02/25 Signature Melissa Guidry

Printed Name

melissa guidry@oxy.com

**Email Address** 

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.



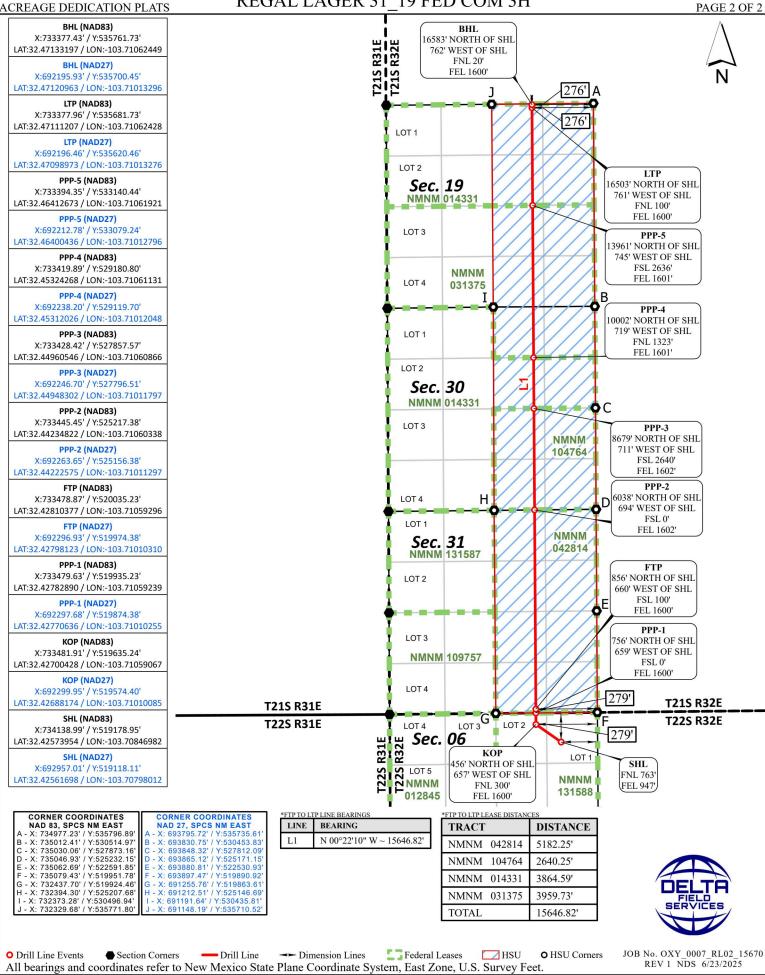
Signature and Seal of Professional Surveyor

Certificate Number

Date of Survey

21653

JUNE 24, 2025



	MANE   PROPERTY   PR	MANE		ITEM				APD BASE LINE	: LINE (For Regulatory to Complete)	Complete)							ins	SUNDRY PLAN (Grou	SUNDRY PLAN (Groups to complete th	SUNDRY PLAN (Groups to complete the latest plan)	SUNDRY PLAN (Groups to complete the latest plan)	SUNDRY PLAN (Groups to complete the latest plan)
MAME   NO	MAME   RICAL ALGER 31 19 FEDERIAL CON 3 H     NST FINE LATE	MAME   NO			Date APD/BASE LINE AF	PROVED: 04/03/25								آ	DATE Sundry Worksheet: 07,	DATE Sundry Worksheet : 07/02/25						
Most	Most	Most   Most		NAME	REGAL LAGER 31_19 FEL	FRAL COM 3H								RE	GAL LAGER 31_19 FEDERAL	REGAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H	GAL LAGER 31_19 FEDERAL COM 3H
Maintain	STATE   STAT	State   Stat	1	NSL	NO									ON								
PATION   STATE   STA	PAD	Part	Buju	SHL	763' FNL 947' FEL									763' FNL 947' FI	13	13	13	15	15	13	EL.	EL .
Hard State   200 PHI, 2040/FEL     Hard State   200 PHI, 200 PHI, 2040 PHI, 204	HOUSEL   1970 PILOLOGO FELL   HOUSEL   1970 PILOLOGO FELL   HOUSEL   1970 PILOLOGO FELL   1	Maint State   200 PHI 2040/FEL     Maint State   200 PHI 2040/FEL	ue	PAD	LSTTNK_22532E_6_3									LSTTNK 22532E 6	3	3	3	3	3	3	3	3
POD STR.   POD STR.	HOLD STATE AND   HOLD STATE OF CONTROL	POD STR.   POD STR.	ld i	BHL	20' FNL 2040' FEL									20' FNL 1600' FEL								
TARGET FORMATION   SIGNET PASSIN SOURCES FROM STATE   STATE PASSIN SOURCES FROM STATE PASSIN SOU	TAMEET FORMATION   SIGNATURE   SECTION   STATE   STA	TAMERT FOUNDAMINON   SIGNET STATES	oce,	HSU SIZE, ACRES	480									096								
TAMEST FORMATION   2000/S20/HUG	TAMERT FORMATION   1985/91/16     TAMERT FORMATION   1985/91/16   TAME	TAMEST FORMATION   2000/2000/2000/2000/2000/2000/2000/20	μng	POOL	BILBREY BASIN; BONESP	SING								BILBREY BASIN; BONESPRIN	9	91	91	91	9	9)	9)	9)
TARGET FORMATION   SOURCEPHING   AND SECTION   APP BASE LINE   APP BASE LINE	TARGET FORMATION   Society   APP Street	Table   Tabl	5	dvr	,0986									10925								
Section   Hole Size (in.)   MO	Section	Section   Hole Size (in.)   MOD   TVO   CQ OC (in.)   GFF		TARGET FORMATION	BONESPRING									BONESPRING								
Surface   Reference   Refere	Section   Hole Steel   MD   TVD   Cego (Inc.)   Geg M   Grade   Conn.	Section   Hole Stee (h.)   MD   Gego (inc)   GeW   Grade   Coron.							APD BASE LINE									is	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN
Surface   14/75   5856   2856   2857   2455   245	Surface   14/75   856	Surface   14/75   5856   2856   2857   2452   2455   245		1A3	Section	Hole Size (in.)	Φ	Г	г	⊢	Srade	Conn		Section	Ē	Hole Size (in.)	Hole Size (in.) MD	L	MD	dVT dM	MD TVD Csg OD (in)	MD TVD Csg OD (in) Csg WT (ppf)
He	Fig. 10   Fig.	Heat		190	Surface	14.75	998	998	10.75	_	1-55	BTC		Surface		17.5	17.5 866		998	998 998	866 866 13.375	866 866 13.375 54.5
Prod   6.75   26025   5800   5.5   9.10   Weelge-dis   Prod	Prod   6.75   2805   5800   5.5   P.110   Wedge-461   Prod   Prod	Prod		эва	Int	9.875	9358	9241	7.625	Н	-80 HC	BTC		Int		9.875	9.875 10381		10381	10381 10318	10381 10318 7.625	10381 10318 7.625 26.4
Section/Stage   Start   Star	Section/Stage   Startor   Startor	Section/Stage   Start		9Me	Prod	6.75	26052	0986	5.5	Н	P-110	Wedge	+ 461	Prod		6.75	6.75 16481		16481	16481 10925	16481 10925 5.5	16481 10925 5.5 20
Section/Stage   Surface - Tail   Ta	Section/Stage   Surface   Surface	Section/Stage   Surface-Tail   Tay   Secka   Yield (Fe/AT)  Density (Balga)   Excess   Tot   Circulate   Class C-Accel   Surface-Tail   Tay		IISY										Prod		6.75	6.75 26875		26875	26875 10925	26875 10925 5.5	26875 10925 5.5 20
Section/Stage   Start   Star	Section/Stage   Start   Section/Stage   Start   Section/Stage   Start   Section/Stage   Start   Section/Stage   Start   Section/Stage   Start   Section/Stage   Section/Stag	Section/Stage   Start   Star		o																		
Section/Stage   Sarker   National Public   December	Section/Stage   Sarker   Sack   Yadd (1947)  Density [labge]   Exess   Tot   Placement   Description Section/Stage   Sarker   Sarker   Sack   Yadd (1947)  Density [labge]   Exess   Tot   Cloudles   Class C-accel   Sark   Exection/Stage   Sark   Sarker	Section/Stage   Sarder   Transcript   Density (B)/gel   Density							APD BASE LINE									35	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN
Surf   Surfice   Surfice	Surf	Surf		W	Section/Stage	Slurry	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess	T0C	Placement	Description	Section/Stage	Slu	Slurry	rry Sacks	Sacks		Sacks	Sacks Yield (ft^3/ft) Density (lb/gal)	Sacks Yield (ft^3/ft) Density (lb/gal) Excess
Impl_   Impl	Impl	Impl_   Impl		•88₩	Surf	Surface - Tail	724	1.33	14.8	100%			Class C+Accel	Surf	Sur	Surface - Tail	face - Tail 905		905 1.33	905 1.33	905 1.33 14.8	905 1.33 14.8 100%
Imp2	Imple   Impl	Imp2	2	90)	Int/1	Interm 15 - Tail	320	1.65	13.2	2%	7015		Class H+Accel, Disper, Salt	Int/1	Inte	Interm 15 - Tail	rm 15 - Tail 455		455 1.68	455 1.68 13.2	455 1.68 13.2	455 1.68 13.2 5% 6990
Prod	Prod.   Production Tail   1299   138   132   25%   8858   Circulate   Class Hi-Re, Disper, Sall   Prod.	Prod	Buil	Hd .	Int/2	Interm 25 - Tail BH	1084	1.71	13.3	25%		Bradenhead		Int/2	Inter	Interm 25 - Tail BH	m 25 - Tail BH 1240		1240	1240 1.71 13.3	1240 1.71 13.3	1240 1.71 13.3
BOD Break Testing Variance X APD BASE LINE SMA Annual Testing Variance X	APD BASE LINE   APD BASE LIN	APD BASE LINE   APD BASE LINE	Inc	LN3	Prod	Production - Tail	1299	1.38	13.2	25%	8858		Class H+Ret, Disper, Salt	Prod	Prc	Production - Tail	duction - Tail 963		963	963 1.84	963 1.84 13.3	963 1.84 13.3 25%
BOP Beest Testing Variance	APD BAST LINE   APD BAST LINE   APD BAST LINE   SOP Breat Tating Underlane   X   APD BAST LINE   SOF Armine POP Variance   X   APD BAST LINE   Bradenhead Gil Variance   X   APD BAST LINE	BOP Break Taning Vurinities		IWI																		
APD BASE LINE   APD BASE LINE	BOP Break Tesing Variance	BOD Broak Tealing Variance   X   APD BASE LINE		כו																		
BOP Break Tesing Variance X 5M Annular BOP Variance X	BOP Broak Tesing Variance	Mode   Feeling Value   X   Mode   M							APD BASE LINE									15	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN	SUNDRY PLAN
5M Annular BOP Variance	5M Annular BOP Variance X Bradenhead CBL Variance X	Manuale POP Visitine     Manuale POP Visitine     Manuale POP Visitine     X   Manuale Visitine   Manuale Visitine     X   Manuale Visitine			BOP Break Tesing Varia.	nce	×							BOP Break Tesing Variance			×	×	×	×	×	×
	Bradenhead CBL Variance X	Bradenhead CB. U ariance X Offline Cementing Valance X		<b>S3</b> :	5M Annular BOP Varian	93								5M Annular BOP Variance			×	×	×	×	×	×
Offline Cementing Variance X Production Annular Cleanance Variance X	Production Annular Clearance X				Flexible Choke Line Var.	ance								Flexible Choke Line Variance	П							
Offline Cenening Volume X Production Annular Gerames Variance X Reache Chief Line Variance	Production Annular Clearance Variance X Fleuble Choke Line Variance	ariance			(Pilot Hole, Logs etc.)									(Pilot Hole, Logs etc.)	, J							

OXY APD CHANGE SUNDRY LIST FORM

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Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 490977

#### **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	490977
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition Con Date	ondition ate
matthew.g	ez Any previous COA's not addressed within the updated COA's still apply.	9/15/2025