Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-025-54127

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/22/2024

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	KAISER FRANCIS OIL COMPANY
WELL NAME & NO.:	BELL LAKE UNIT NORTH 819H
LOCATION:	Section 1, T.23 S., R.33 E.
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[ ] COM	[x] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[ ] Break Testing	[ ] Offline Cementing	[ ] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1,250** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

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

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **10-3/4** inch intermediate casing shall be set at approximately **5,000 feet TVD.**
   - Keep casing ¾ full during run to meet collapse SF
   - BTC connection proposed is an API BTC SPcl which has an OD of 11.25" and meets clearance requirements
   - Lead cement yield proposed is higher than CFO requirement of 3.5cuFt/sk. Please review and adjust yield and quantity to meet below requirement

   The minimum required fill of cement behind the **10-3/4** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The **7-5/8** inch intermediate casing shall be set at approximately **10,900 feet TVD.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

4. The **5-1/2** inch production casing shall be set at approximately **19,584** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

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

C. PRESSURE CONTROL

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

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.**

   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

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 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

Contact Lea County Petroleum Engineering Inspection Staff:

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig

i. Notify the BLM when moving in and removing the Spudder Rig.
ii. Notify the BLM when moving in the 2nd 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 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. 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 10/9/2024

Approval Date: 11/22/2024

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-54127	98259	Ojo Chiso; Bone Spring, Southwest

Property Code	Property Name	Well Number
316707	BELL LAKE UNIT NORTH	819H

OGRID No.	Operator Name	Ground Level Elevation
12361	KAISER-FRANCIS OIL COMPANY	3531'

Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
L	1	23-S	33-E	-	2582' S	391' W	N 32.3335281	W 103.5333709	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	36	22-S	33-E	-	25' N	800' W	N 32.3553759	W 103.5320332	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidated Code
480.30	INFILL	30-025-47562		

Order Numbers R-14527-A
Well Setbacks are under Common Ownership: ☐ Yes ☐ No

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
E	1	23-S	33-E	-	2550' N	800' W	N 32.3339223	W 103.5320446	LEA

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
E	1	23-S	33-E	-	2450' N	800' W	N 32.3341972	W 103.5320434	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	36	22-S	33-E	-	100' N	800' W	N 32.3551697	W 103.5320327	LEA

Unitized Area or Area of Uniform Intrest	Spacing Unity Type	Ground Floor Elevation
UNITIZED	☒ Horizontal ☐ Vertical	3531'

OPERATOR CERTIFICATION

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.

Christina Opfer **8/12/2024**

Signature Date

Christina Opfer

Print Name

ChristinaO@kfoc.net

E-mail Address

SURVEYORS CERTIFICATION

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.

STANLEY W. LLOYD NEW MEXICO 14042 PROFESSIONAL SURVEYOR

08-12-24

Signature and Seal of Professional Surveyor Date

Certificate Number

Date of Survey

07/30/2024

O:\SURVEY\KAISER_FRANCIS\BELL_PAD_1\FINAL_PRODUCTS\LO_BELL_LAKE_UNIT_NORTH_819H_REV1.dwg CALEB.ROBERTSON 8/12/2024 9:01 AM

C-102

Submit Electronically
Via OCD Permitting

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

Revised July 9, 2024

Submittal Type:
- [X] Initial Submittal
- [ ] Amended Report
- [ ] As Drilled

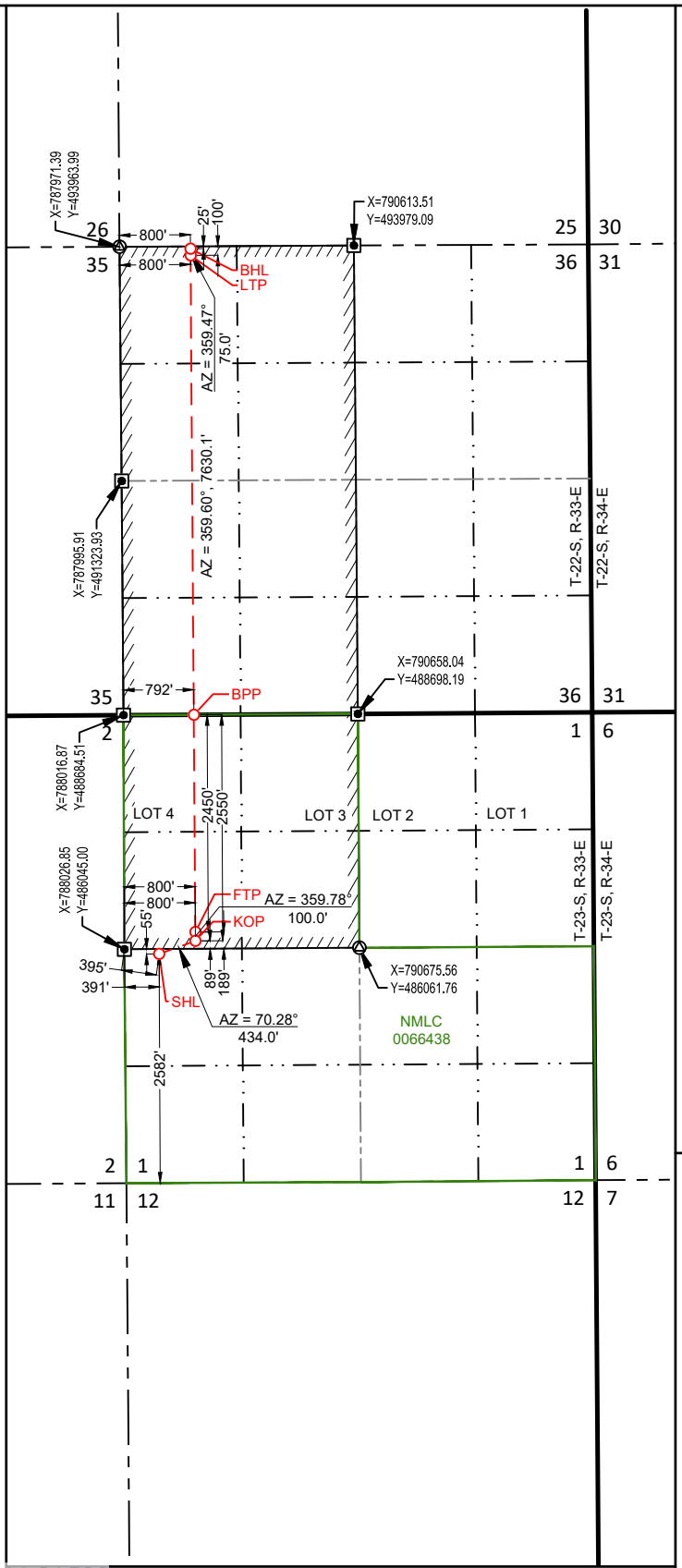
Property Name and Well Number

BELL LAKE UNIT NORTH 819H

SURFACE LOCATION (SHL)
NEW MEXICO EAST
NAD 1983
X=788418 Y=485992
LAT.: N 32.3335281
LONG.: W 103.5333709
2582' FSL 391' FWL

KICK OFF POINT (KOP)
NEW MEXICO EAST
NAD 1983
X=788826 Y=486139
LAT.: N 32.3339223
LONG.: W 103.5320446
2550' FNL 800' FWL

FIRST TAKE POINT (FTP)
NEW MEXICO EAST
NAD 1983
X=788826 Y=486239
LAT.: N 32.3341972
LONG.: W 103.5320434
2450' FNL 800' FWL



BLM PERF. POINT (BPP)
NEW MEXICO EAST
NAD 1983
X=788809 Y=488689
LAT.: N 32.3409314
LONG.: W 103.5320400
0' FNL 792' FWL

LAST TAKE POINT (LTP)
NEW MEXICO EAST
NAD 1983
X=788772 Y=493869
LAT.: N 32.3551697
LONG.: W 103.5320327
100' FNL 800' FWL

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST
NAD 1983
X=788772 Y=493944
LAT.: N 32.3553759
LONG.: W 103.5320332
25' FNL 800' FWL

T-23-S, R-33-E
SECTION 1
LOT 1 - 39.99 ACRES
LOT 2 - 39.96 ACRES
LOT 3 - 39.94 ACRES
LOT 4 - 39.91 ACRES

SURVEYORS CERTIFICATION

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.

07/30/2024
Date of Survey

Signature and Seal of Professional Surveyor:

STAN W. LLOYD
NEW MEXICO
19642
PROFESSIONAL SURVEYOR

08-12-24

O:\SURVEY\KAISER_FRANCIS\BELL_PAD_1\FINAL_PRODUCTS\LO_BELL_LAKE_UNIT_NORTH_819H_REV1.dwg CALEB.ROBERTSON 8/12/2024 9:01 AM

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Kaiser-Francis Oil Company **OGRID:** 12361 **Date:** 8 / 19 /2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
North Pad 1 wells listed on next page.						

IV. Central Delivery Point Name: pad site [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
North Pad 1 anticipated schedule listed on next page.						

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

III. Wells

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented
Bell Lake Unit North 719H		1-23S-33E	2582' FSL 450' FWL	1500	0
Bell Lake Unit North 819H		1-23S-33E	2582' FSL 391' FWL	1500	0
Bell Lake Unit North AVA 019H		1-23S-33E	2582' FSL 410' FWL	1500	0
Bell Lake Unit North AVB 019H		1-23S-33E	2583' FSL 371' FWL	1500	0
Bell Lake Unit North AVD 019H		1-23S-33E	2582' FSL 430' FWL	1500	0

V. Anticipated Schedule

Well Name	API	Spud	TD	Completion	Initial Flow Back	First Production
Bell Lake Unit North 719H		10/1/2024	10/26/2024	3/1/2025	3/25/2025	3/26/2025
Bell Lake Unit North 819H		10/27/2024	11/21/2024	3/1/2025	3/25/2025	3/26/2025
Bell Lake Unit North AVA 019H		11/22/2024	12/17/2024	3/1/2025	3/25/2025	3/26/2025
Bell Lake Unit North AVB 019H		12/18/2024	1/12/2025	3/1/2025	3/25/2025	3/26/2025
Bell Lake Unit North AVD 019H		1/13/2025	2/7/2025	3/1/2025	3/25/2025	3/26/2025

Kaiser-Francis Oil Company
Natural Gas Management Plan

Plan Description

VI. Separation Equipment

Separation equipment will be designed for maximum anticipated throughput and pressure to minimize waste.

VII. Operational Practices

A. VENTING AND FLARING OF NATURAL GAS

Kaiser-Francis Oil Company (KFOC) will maximize the recovery of natural gas by minimizing the waste of natural gas through venting and flaring during drilling, completion, and production operations as outlined in 19.15.27.8 NMAC. KFOC will flare rather than vent natural gas except when flaring is technically infeasible or would pose a safety risk and venting is a safer alternative than flaring. KFOC will ensure well(s) are connected to a natural gas gathering system with sufficient capacity to transport natural gas.

B. Venting and flaring during drilling operations

KFOC will combust natural gas brought to the surface during drilling operations. A properly sized flare stack will be located at a minimum of 100 feet from the nearest surface hole location. In case of emergency or malfunction, KFOC will report natural gas volumes, vented or flared.

C. Venting and flaring during completion or recompletion operations

During completion operations, KFOC will flare natural gas brought to the surface and commence operation of a separator once technically feasible. Produced natural gas from separation equipment will be sold. If natural gas does not meet gathering pipeline quality specifications, KFOC will flare for no more than 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner.

D. Venting and flaring during production operations

KFOC will not vent or flare natural gas during production, except for provisions defined by 19.15.27.8.D (1) through (4). KFOC will report natural gas volumes, vented or flared, appropriately.

E. Performance Standards

KFOC will comply with performance standards outlined in 19.15.27.8.E to minimize waste. Separation equipment will be designed for maximum anticipated throughput and pressure to minimize waste. Any permanent storage tank associated with production operations that is

routed to a flare or control device will be equipped with an automatic gauging system that reduces the venting of natural gas. KFOC will combust natural gas in a flare stack that is properly sized and designed to ensure proper combustion efficiency. Flare stacks will be equipped with an automatic ignitor or continuous pilot. KFOC will conduct an AVO inspection on the frequency specified in Subsection D of 19.15.27.8 NMAC. All emergencies will be resolved as quickly and safely as feasible.

F. Measurement or estimation of vented or flared natural gas

KFOC will measure or estimate natural gas that is vented, flared, or beneficially used during drilling, completion, and production operations. Equipment will be installed to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility, authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60,000 cubic feet of natural gas. Measuring equipment will conform to an industry standard. Where measuring is not feasible, volumes will be estimated.

VIII. Best Management Practices

During active and planned maintenance, venting will be limited to the depressurization of the equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut-in to eliminate venting. During VRU maintenance, gas normally routed to the VRU will be flared.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	Aaron Daniels
Title:	EHS Manager
E-mail Address:	aarond@kfoc.net
Date:	8/20/2024
Phone:	918-494-8000

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Bell Lake Unit North 819H

Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	2582	FSL	319	FWL	23S	33E	1	Aliquot NWSW	32.3335281	-103.5333709	LEA	NEW MEXICO	NEW MEXICO	F	NMLC066438	3531	0	0	N
KOP Leg #1	2550	FNL	800	FWL	23S	33E	1	Aliquot SWNW	32.3339223	-103.5320446	LEA	NEW MEXICO	NEW MEXICO	F	NMLC066438	-7401	11018	10932	N
PPP Leg #1-1	2450	FNL	800	FWL	23S	33E	1	Aliquot SWNW	32.3341972	-103.5320434	LEA	NEW MEXICO	NEW MEXICO	F	NMLC066438	-7879	11768	11410	Y

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-2	0	FNL	792	FWL	23S	33E	1	Aliquot NWNW	32.3409314	-103.53204	LEA	NEW MEXICO	NEW MEXICO	F	NMLC066438	-7879	14330	11410	Y
EXIT Leg #1	100	FNL	800	FWL	22S	33E	36	Aliquot NWNW	32.3551697	-103.5320327	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7879	19500	11410	Y
BHL Leg #1	25	FNL	800	FWL	22S	33E	36	Aliquot NWNW	32.3553759	-103.5320332	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7879	19584	11410	N

Section 1- Formation Tops

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14548869	RUSTLER	3531	994	994	ANHYDRITE	NONE	N
14548870	SALADO	2181	1350	1350	LIMESTONE	NONE	N
14548871	TOP SALT	1981	1550	1550	SALT	NONE	N
14548873	LAMAR	-1279	4810	4810	SHALE	NONE	N
14548874	BELL CANYON	-1856	5387	5387	SANDSTONE	NATURAL GAS, OIL	Y
14548875	CHERRY CANYON	-3094	6625	6625	SANDSTONE	NATURAL GAS, OIL	Y
14548876	BRUSHY CANYON	-4095	7626	7626	SANDSTONE	NATURAL GAS, OIL	Y
14548877	LOWER BRUSHY CANYON 8A	-5187	8718	8718	SANDSTONE	NATURAL GAS, OIL	Y
14548878	AVALON SAND	-5372	8903	8903	SANDSTONE	NATURAL GAS, OIL	Y
14548879	BONE SPRING 1ST	-6439	9970	9970	SANDSTONE	NATURAL GAS, OIL	Y

Section 2- BOP

Pressure Rating: 5M

Rating Depth: 10,000

Equipment: A 5M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams, a blind ram and safety valves and appropriate handles located on the rig floor. BOP will be equipped with 2 side outlets (choke side shall be a minimum 3 line, and kill side will be a minimum 2 line). Kill line will be installed with (2) valves and a check valve (2 min) of proper pressure rating for the system. A manual and hydraulic valve (2 min) will be installed on the choke line, 2 chokes will be used with one being remotely controlled. Fill up line will be installed above the uppermost preventer. Pressure gauge of proper pressure rating will be installed on choke manifold. Upper and lower kelly cocks will be utilized with handles readily available in plain sight. A float sub will be available at all times. All connections subject to well pressure will be flanged, welded, or clamped.

Requesting Variance: Yes

Variance Request: Flex Hose Variance; MultiBowl Wellhead

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and high pressure indicated above per Onshore Order #2 requirements. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table. If the system is upgraded all of the components installed will be functional and tested.

Section 3- Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1250	0	1250	3531	2281	1250	J-55	54.5	BUTT	1.9	4.6	DRY	13.3	DRY	12.5
2	INTERMEDIATE	12.25	10.75	NEW	API	N	0	5000	0	5000	3531	-1469	5000	HCN-80	45.5	BUTT	1.2	2	DRY	5.2	DRY	4.6
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10900	0	10900	3531	-7369	10900	HCP-110	29.7	BUTT	1.4	1.9	DRY	3	DRY	3
4	PRODUCTION	6.75	5.5	NEW	API	N	0	19588	0	11410	3531	-7879	19588	P-110	23	OTHER - Eagle SFH	2.8	2.8	DRY	2.6	DRY	2.8

Section 4- Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1250	840	1.81	13.2	1520	75	Class C Premium Plus	Class C
INTERMEDIATE	Lead		0	4000	518	2.18	12.4	1129	50	Class C Premium Plus	Gypsum, Calcium Chloride, Poly Flake
INTERMEDIATE	Tail		4000	5000	212	1.33	14.8	282	50	Class C Premium Plus	none
INTERMEDIATE	Lead		4000	9900	286	5.54	10.2	1584	25	Class C	Gypsum, Gel, Poly Flake
INTERMEDIATE	Tail		9900	10900	193	1.39	13.8	268	25	Class C	Gypsum, Gel
PRODUCTION	Lead		4500	10584	177	3.44	10.8	610	20	Class H Premium	Gypsum, Gel, Poly Flake
PRODUCTION	Tail		10584	19584	567	1.59	13.2	902	20	Class H Premium	Gypsum, Gel

Section 5- Circulating Medium

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1250	WATER-BASED MUD	8.6	9.2							
1250	5000	SALT SATURATED	9.8	10							
5000	10900	WATER-BASED MUD	8.7	9.2							
10900	19584	WATER-BASED MUD	9.2	9.8							

Mud System Type: Closed

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

Mud Monitoring System: PVT/Pason/Vision Monitoring

Section 6- Test, Logging, Coring,

Production Tests: Top of cement on production casing will be determined by calculation.

List of Logs to be run in the well: Directional Survey, Gamma Ray Log, Mud Log/Geological Lithology, Compensated Neutron Log

No coring is planned.

Section 7- Drilling Conditions

Anticipated Bottom Hole Pressure: 5815 **Anticipated Surface Pressure:** 3304

Anticipated Bottom Hole Temperature(F): 170

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

H2S Contingency plan attached.

KAISER FRANCIS OIL CO.

LEA COUNTY, N.M. 83
SEC 36-T22S-R33E
Bell Lake Unit North 819H

Wellbore #1

Plan: Plan 1

Standard Planning Report

12 August, 2024

Kaiser-Francis Oil Company

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project LEA COUNTY, N.M. 83

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site SEC 36-T22S-R33E

Site Position:		**Northing:**	493,717.00 usft	**Latitude:**	32.35474687
From:	Map	**Easting:**	789,077.00 usft	**Longitude:**	-103.53104980
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Bell Lake Unit North 819H

Well Position	**+N/-S**	0.00 usft	**Northing:**	485,992.00 usft	**Latitude:**	32.33352760
	+E/-W	0.00 usft	**Easting:**	788,418.00 usft	**Longitude:**	-103.53337060
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,531.00 usft
Grid Convergence:		0.43 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM 2023	2/29/2024	6.30	59.96	47,468.20000000

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Survey Tool Program **Date** 8/12/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,583.56	Plan 1 (Wellbore #1)	MWD+HRGM OWSG MWD + HRGM	

Planning Report

Kaiser-Francis Oil Company

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Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
6,125.73	18.51	121.98	6,109.70	-78.52	125.77	2.00	2.00	0.00	121.98	
7,159.85	18.51	121.98	7,090.30	-252.43	404.33	0.00	0.00	0.00	0.00	
8,085.58	0.00	0.00	8,000.00	-330.95	530.10	2.00	-2.00	0.00	180.00	
11,018.12	0.00	0.00	10,932.54	-330.95	530.10	0.00	0.00	0.00	0.00	
11,768.12	90.00	350.00	11,410.01	139.26	447.19	12.00	12.00	0.00	350.00	
12,248.69	90.00	359.61	11,410.00	617.30	403.73	2.00	0.00	2.00	90.00	
19,583.56	90.00	359.61	11,410.00	7,952.00	354.00	0.00	0.00	0.00	0.00	BLUN 819H PBHL(25

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	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	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	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
3,900.00	0.00	0.00	3,900.00	0.00	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

Start Build 2.00

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.00	2.00	121.98	5,299.98	-0.92	1.48	-0.92	2.00	2.00	0.00
5,400.00	4.00	121.98	5,399.84	-3.70	5.92	-3.70	2.00	2.00	0.00
5,500.00	6.00	121.98	5,499.45	-8.31	13.31	-8.31	2.00	2.00	0.00
5,600.00	8.00	121.98	5,598.70	-14.76	23.65	-14.76	2.00	2.00	0.00
5,700.00	10.00	121.98	5,697.47	-23.05	36.92	-23.05	2.00	2.00	0.00
5,800.00	12.00	121.98	5,795.62	-33.15	53.10	-33.15	2.00	2.00	0.00
5,900.00	14.00	121.98	5,893.06	-45.07	72.18	-45.07	2.00	2.00	0.00
6,000.00	16.00	121.98	5,989.64	-58.77	94.14	-58.77	2.00	2.00	0.00
6,100.00	18.00	121.98	6,085.27	-74.25	118.94	-74.25	2.00	2.00	0.00
6,125.73	18.51	121.98	6,109.70	-78.52	125.77	-78.52	2.00	2.00	0.00
Start 1034.12 hold at 6125.73 MD									
6,200.00	18.51	121.98	6,180.13	-91.01	145.78	-91.01	0.00	0.00	0.00
6,300.00	18.51	121.98	6,274.95	-107.83	172.72	-107.83	0.00	0.00	0.00
6,400.00	18.51	121.98	6,369.78	-124.65	199.65	-124.65	0.00	0.00	0.00
6,500.00	18.51	121.98	6,464.60	-141.46	226.59	-141.46	0.00	0.00	0.00
6,600.00	18.51	121.98	6,559.43	-158.28	253.52	-158.28	0.00	0.00	0.00
6,700.00	18.51	121.98	6,654.25	-175.10	280.46	-175.10	0.00	0.00	0.00
6,800.00	18.51	121.98	6,749.07	-191.91	307.40	-191.91	0.00	0.00	0.00
6,900.00	18.51	121.98	6,843.90	-208.73	334.33	-208.73	0.00	0.00	0.00
7,000.00	18.51	121.98	6,938.72	-225.55	361.27	-225.55	0.00	0.00	0.00
7,100.00	18.51	121.98	7,033.55	-242.36	388.21	-242.36	0.00	0.00	0.00
7,159.85	18.51	121.98	7,090.30	-252.43	404.33	-252.43	0.00	0.00	0.00
Start Drop -2.00									
7,200.00	17.71	121.98	7,128.46	-259.04	414.91	-259.04	2.00	-2.00	0.00
7,300.00	15.71	121.98	7,224.23	-274.27	439.31	-274.27	2.00	-2.00	0.00
7,400.00	13.71	121.98	7,320.95	-287.71	460.85	-287.71	2.00	-2.00	0.00
7,500.00	11.71	121.98	7,418.49	-299.37	479.51	-299.37	2.00	-2.00	0.00
7,600.00	9.71	121.98	7,516.75	-309.21	495.28	-309.21	2.00	-2.00	0.00
7,700.00	7.71	121.98	7,615.59	-317.23	508.12	-317.23	2.00	-2.00	0.00
7,800.00	5.71	121.98	7,714.90	-323.42	518.04	-323.42	2.00	-2.00	0.00
7,900.00	3.71	121.98	7,814.55	-327.77	525.00	-327.77	2.00	-2.00	0.00
8,000.00	1.71	121.98	7,914.44	-330.27	529.02	-330.27	2.00	-2.00	0.00
8,085.58	0.00	0.00	8,000.00	-330.95	530.10	-330.95	2.00	-2.00	0.00
Start 2932.54 hold at 8085.58 MD									
8,100.00	0.00	0.00	8,014.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,200.00	0.00	0.00	8,114.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,300.00	0.00	0.00	8,214.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,400.00	0.00	0.00	8,314.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,500.00	0.00	0.00	8,414.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,600.00	0.00	0.00	8,514.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,700.00	0.00	0.00	8,614.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,800.00	0.00	0.00	8,714.42	-330.95	530.10	-330.95	0.00	0.00	0.00
8,900.00	0.00	0.00	8,814.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,000.00	0.00	0.00	8,914.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,100.00	0.00	0.00	9,014.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,200.00	0.00	0.00	9,114.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,300.00	0.00	0.00	9,214.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,400.00	0.00	0.00	9,314.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,500.00	0.00	0.00	9,414.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,600.00	0.00	0.00	9,514.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,700.00	0.00	0.00	9,614.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,800.00	0.00	0.00	9,714.42	-330.95	530.10	-330.95	0.00	0.00	0.00
9,900.00	0.00	0.00	9,814.42	-330.95	530.10	-330.95	0.00	0.00	0.00

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	0.00	0.00	9,914.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,100.00	0.00	0.00	10,014.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,200.00	0.00	0.00	10,114.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,300.00	0.00	0.00	10,214.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,400.00	0.00	0.00	10,314.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,500.00	0.00	0.00	10,414.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,600.00	0.00	0.00	10,514.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,700.00	0.00	0.00	10,614.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,800.00	0.00	0.00	10,714.42	-330.95	530.10	-330.95	0.00	0.00	0.00
10,900.00	0.00	0.00	10,814.42	-330.95	530.10	-330.95	0.00	0.00	0.00
11,000.00	0.00	0.00	10,914.42	-330.95	530.10	-330.95	0.00	0.00	0.00
11,018.12	0.00	0.00	10,932.54	-330.95	530.10	-330.95	0.00	0.00	0.00
Start Build 12.00									
11,025.00	0.83	350.00	10,939.42	-330.90	530.09	-330.90	12.00	12.00	0.00
11,050.00	3.83	350.00	10,964.40	-329.90	529.92	-329.90	12.00	12.00	0.00
11,075.00	6.83	350.00	10,989.29	-327.62	529.51	-327.62	12.00	12.00	0.00
11,100.00	9.83	350.00	11,014.02	-324.05	528.88	-324.05	12.00	12.00	0.00
11,125.00	12.83	350.00	11,038.53	-319.22	528.03	-319.22	12.00	12.00	0.00
11,150.00	15.83	350.00	11,062.75	-313.13	526.96	-313.13	12.00	12.00	0.00
11,175.00	18.83	350.00	11,086.62	-305.80	525.66	-305.80	12.00	12.00	0.00
11,200.00	21.83	350.00	11,110.06	-297.24	524.16	-297.24	12.00	12.00	0.00
11,225.00	24.83	350.00	11,133.01	-287.50	522.44	-287.50	12.00	12.00	0.00
11,250.00	27.83	350.00	11,155.41	-276.58	520.51	-276.58	12.00	12.00	0.00
11,275.00	30.83	350.00	11,177.21	-264.52	518.39	-264.52	12.00	12.00	0.00
11,300.00	33.83	350.00	11,198.33	-251.36	516.07	-251.36	12.00	12.00	0.00
11,325.00	36.83	350.00	11,218.73	-237.12	513.56	-237.12	12.00	12.00	0.00
11,350.00	39.83	350.00	11,238.34	-221.86	510.86	-221.86	12.00	12.00	0.00
11,375.00	42.83	350.00	11,257.11	-205.60	508.00	-205.60	12.00	12.00	0.00
11,400.00	45.83	350.00	11,274.99	-188.40	504.96	-188.40	12.00	12.00	0.00
11,425.00	48.83	350.00	11,291.93	-170.30	501.77	-170.30	12.00	12.00	0.00
11,450.00	51.83	350.00	11,307.89	-151.35	498.43	-151.35	12.00	12.00	0.00
11,475.00	54.83	350.00	11,322.82	-131.61	494.95	-131.61	12.00	12.00	0.00
11,500.00	57.83	350.00	11,336.68	-111.12	491.34	-111.12	12.00	12.00	0.00
11,525.00	60.83	350.00	11,349.44	-89.95	487.61	-89.95	12.00	12.00	0.00
11,550.00	63.83	350.00	11,361.05	-68.15	483.76	-68.15	12.00	12.00	0.00
11,575.00	66.83	350.00	11,371.48	-45.78	479.82	-45.78	12.00	12.00	0.00
11,600.00	69.83	350.00	11,380.71	-22.90	475.78	-22.90	12.00	12.00	0.00
11,625.00	72.83	350.00	11,388.72	0.42	471.67	0.42	12.00	12.00	0.00
11,650.00	75.83	350.00	11,395.47	24.12	467.49	24.12	12.00	12.00	0.00
11,675.00	78.83	350.00	11,400.95	48.14	463.26	48.14	12.00	12.00	0.00
11,700.00	81.83	350.00	11,405.15	72.41	458.98	72.41	12.00	12.00	0.00
11,725.00	84.83	350.00	11,408.06	96.86	454.67	96.86	12.00	12.00	0.00
11,750.00	87.83	350.00	11,409.66	121.42	450.33	121.42	12.00	12.00	0.00
11,768.12	90.00	350.00	11,410.01	139.26	447.19	139.26	12.00	12.00	0.00
Start DLS 2.00 TFO 90.00									
11,800.00	90.00	350.64	11,410.01	170.69	441.83	170.69	2.00	0.00	2.00
11,900.00	90.00	352.64	11,410.01	269.62	427.28	269.62	2.00	0.00	2.00
12,000.00	90.00	354.64	11,410.01	369.00	416.20	369.00	2.00	0.00	2.00
12,100.00	90.00	356.64	11,410.01	468.71	408.60	468.71	2.00	0.00	2.00
12,200.00	90.00	358.64	11,410.00	568.62	404.48	568.62	2.00	0.00	2.00
12,248.69	90.00	359.61	11,410.00	617.30	403.73	617.30	2.00	0.00	2.00
Start 7334.87 hold at 12248.69 MD									
12,300.00	90.00	359.61	11,410.00	668.61	403.38	668.61	0.00	0.00	0.00

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,400.00	90.00	359.61	11,410.00	768.61	402.71	768.61	0.00	0.00	0.00
12,500.00	90.00	359.61	11,410.00	868.60	402.03	868.60	0.00	0.00	0.00
12,600.00	90.00	359.61	11,410.00	968.60	401.35	968.60	0.00	0.00	0.00
12,700.00	90.00	359.61	11,410.00	1,068.60	400.67	1,068.60	0.00	0.00	0.00
12,800.00	90.00	359.61	11,410.00	1,168.60	399.99	1,168.60	0.00	0.00	0.00
12,900.00	90.00	359.61	11,410.00	1,268.59	399.32	1,268.59	0.00	0.00	0.00
13,000.00	90.00	359.61	11,410.00	1,368.59	398.64	1,368.59	0.00	0.00	0.00
13,100.00	90.00	359.61	11,410.00	1,468.59	397.96	1,468.59	0.00	0.00	0.00
13,200.00	90.00	359.61	11,410.00	1,568.59	397.28	1,568.59	0.00	0.00	0.00
13,300.00	90.00	359.61	11,410.00	1,668.59	396.60	1,668.59	0.00	0.00	0.00
13,400.00	90.00	359.61	11,410.00	1,768.58	395.93	1,768.58	0.00	0.00	0.00
13,500.00	90.00	359.61	11,410.00	1,868.58	395.25	1,868.58	0.00	0.00	0.00
13,600.00	90.00	359.61	11,410.00	1,968.58	394.57	1,968.58	0.00	0.00	0.00
13,700.00	90.00	359.61	11,410.00	2,068.58	393.89	2,068.58	0.00	0.00	0.00
13,800.00	90.00	359.61	11,410.00	2,168.57	393.21	2,168.57	0.00	0.00	0.00
13,900.00	90.00	359.61	11,410.00	2,268.57	392.54	2,268.57	0.00	0.00	0.00
14,000.00	90.00	359.61	11,410.00	2,368.57	391.86	2,368.57	0.00	0.00	0.00
14,100.00	90.00	359.61	11,410.00	2,468.57	391.18	2,468.57	0.00	0.00	0.00
14,200.00	90.00	359.61	11,410.00	2,568.56	390.50	2,568.56	0.00	0.00	0.00
14,300.00	90.00	359.61	11,410.00	2,668.56	389.82	2,668.56	0.00	0.00	0.00
14,400.00	90.00	359.61	11,410.00	2,768.56	389.15	2,768.56	0.00	0.00	0.00
14,500.00	90.00	359.61	11,410.00	2,868.56	388.47	2,868.56	0.00	0.00	0.00
14,600.00	90.00	359.61	11,410.00	2,968.56	387.79	2,968.56	0.00	0.00	0.00
14,700.00	90.00	359.61	11,410.00	3,068.55	387.11	3,068.55	0.00	0.00	0.00
14,800.00	90.00	359.61	11,410.00	3,168.55	386.43	3,168.55	0.00	0.00	0.00
14,900.00	90.00	359.61	11,410.00	3,268.55	385.76	3,268.55	0.00	0.00	0.00
15,000.00	90.00	359.61	11,410.00	3,368.55	385.08	3,368.55	0.00	0.00	0.00
15,100.00	90.00	359.61	11,410.00	3,468.54	384.40	3,468.54	0.00	0.00	0.00
15,200.00	90.00	359.61	11,410.00	3,568.54	383.72	3,568.54	0.00	0.00	0.00
15,300.00	90.00	359.61	11,410.00	3,668.54	383.04	3,668.54	0.00	0.00	0.00
15,400.00	90.00	359.61	11,410.00	3,768.54	382.37	3,768.54	0.00	0.00	0.00
15,500.00	90.00	359.61	11,410.00	3,868.54	381.69	3,868.54	0.00	0.00	0.00
15,600.00	90.00	359.61	11,410.00	3,968.53	381.01	3,968.53	0.00	0.00	0.00
15,700.00	90.00	359.61	11,410.00	4,068.53	380.33	4,068.53	0.00	0.00	0.00
15,800.00	90.00	359.61	11,410.00	4,168.53	379.65	4,168.53	0.00	0.00	0.00
15,900.00	90.00	359.61	11,410.00	4,268.53	378.98	4,268.53	0.00	0.00	0.00
16,000.00	90.00	359.61	11,410.00	4,368.52	378.30	4,368.52	0.00	0.00	0.00
16,100.00	90.00	359.61	11,410.00	4,468.52	377.62	4,468.52	0.00	0.00	0.00
16,200.00	90.00	359.61	11,410.00	4,568.52	376.94	4,568.52	0.00	0.00	0.00
16,300.00	90.00	359.61	11,410.00	4,668.52	376.26	4,668.52	0.00	0.00	0.00
16,400.00	90.00	359.61	11,410.00	4,768.51	375.59	4,768.51	0.00	0.00	0.00
16,500.00	90.00	359.61	11,410.00	4,868.51	374.91	4,868.51	0.00	0.00	0.00
16,600.00	90.00	359.61	11,410.00	4,968.51	374.23	4,968.51	0.00	0.00	0.00
16,700.00	90.00	359.61	11,410.00	5,068.51	373.55	5,068.51	0.00	0.00	0.00
16,800.00	90.00	359.61	11,410.00	5,168.51	372.87	5,168.51	0.00	0.00	0.00
16,900.00	90.00	359.61	11,410.00	5,268.50	372.20	5,268.50	0.00	0.00	0.00
17,000.00	90.00	359.61	11,410.00	5,368.50	371.52	5,368.50	0.00	0.00	0.00
17,100.00	90.00	359.61	11,410.00	5,468.50	370.84	5,468.50	0.00	0.00	0.00
17,200.00	90.00	359.61	11,410.00	5,568.50	370.16	5,568.50	0.00	0.00	0.00
17,300.00	90.00	359.61	11,410.00	5,668.49	369.48	5,668.49	0.00	0.00	0.00
17,400.00	90.00	359.61	11,410.00	5,768.49	368.81	5,768.49	0.00	0.00	0.00
17,500.00	90.00	359.61	11,410.00	5,868.49	368.13	5,868.49	0.00	0.00	0.00
17,600.00	90.00	359.61	11,410.00	5,968.49	367.45	5,968.49	0.00	0.00	0.00
17,700.00	90.00	359.61	11,410.00	6,068.48	366.77	6,068.48	0.00	0.00	0.00

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,800.00	90.00	359.61	11,410.00	6,168.48	366.09	6,168.48	0.00	0.00	0.00
17,900.00	90.00	359.61	11,410.00	6,268.48	365.41	6,268.48	0.00	0.00	0.00
18,000.00	90.00	359.61	11,410.00	6,368.48	364.74	6,368.48	0.00	0.00	0.00
18,100.00	90.00	359.61	11,410.00	6,468.48	364.06	6,468.48	0.00	0.00	0.00
18,200.00	90.00	359.61	11,410.00	6,568.47	363.38	6,568.47	0.00	0.00	0.00
18,300.00	90.00	359.61	11,410.00	6,668.47	362.70	6,668.47	0.00	0.00	0.00
18,400.00	90.00	359.61	11,410.00	6,768.47	362.02	6,768.47	0.00	0.00	0.00
18,500.00	90.00	359.61	11,410.00	6,868.47	361.35	6,868.47	0.00	0.00	0.00
18,600.00	90.00	359.61	11,410.00	6,968.46	360.67	6,968.46	0.00	0.00	0.00
18,700.00	90.00	359.61	11,410.00	7,068.46	359.99	7,068.46	0.00	0.00	0.00
18,800.00	90.00	359.61	11,410.00	7,168.46	359.31	7,168.46	0.00	0.00	0.00
18,900.00	90.00	359.61	11,410.00	7,268.46	358.63	7,268.46	0.00	0.00	0.00
19,000.00	90.00	359.61	11,410.00	7,368.45	357.96	7,368.45	0.00	0.00	0.00
19,100.00	90.00	359.61	11,410.00	7,468.45	357.28	7,468.45	0.00	0.00	0.00
19,200.00	90.00	359.61	11,410.00	7,568.45	356.60	7,568.45	0.00	0.00	0.00
19,300.00	90.00	359.61	11,410.00	7,668.45	355.92	7,668.45	0.00	0.00	0.00
19,400.00	90.00	359.61	11,410.00	7,768.45	355.24	7,768.45	0.00	0.00	0.00
19,500.00	90.00	359.61	11,410.00	7,868.44	354.57	7,868.44	0.00	0.00	0.00
19,583.56	90.00	359.61	11,410.00	7,952.00	354.00	7,952.00	0.00	0.00	0.00
TD at 19583.56									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLUN 819H FTP(2450' F	0.00	0.00	11,410.00	247.00	408.00	486,239.00	788,826.00	32.33419812	-103.53204376
- plan misses target center by 22.10usft at 11880.42usft MD (11410.00 TVD, 250.21 N, 429.86 E)									
- Point									
BLUN 819H LTP(100' FI	0.00	0.00	11,410.00	7,877.00	354.00	493,869.00	788,772.00	32.35517093	-103.53203375
- plan misses target center by 8.58usft at 19500.00usft MD (11410.00 TVD, 7868.44 N, 354.57 E)									
- Point									
BLUN 819H PBHL(25' F	0.00	0.00	11,410.00	7,952.00	354.00	493,944.00	788,772.00	32.35537708	-103.53203193
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
18,248.55	11,410.00	20" Casing	20	24

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 819H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Project:	LEA COUNTY, N.M. 83	**MD Reference:**	RKB 30' + GL 3531' @ 3561.00usft
Site:	SEC 36-T22S-R33E	**North Reference:**	Grid
Well:	Bell Lake Unit North 819H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,200.00	5,200.00	0.00	0.00	Start Build 2.00
6,125.73	6,109.70	-78.52	125.77	Start 1034.12 hold at 6125.73 MD
7,159.85	7,090.30	-252.43	404.33	Start Drop -2.00
8,085.58	8,000.00	-330.95	530.10	Start 2932.54 hold at 8085.58 MD
11,018.12	10,932.54	-330.95	530.10	Start Build 12.00
11,768.12	11,410.01	139.26	447.19	Start DLS 2.00 TFO 90.00
12,248.69	11,410.00	617.30	403.73	Start 7334.87 hold at 12248.69 MD
19,583.56	11,410.00	7,952.00	354.00	TD at 19583.56

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 408452

CONDITIONS

Operator: KAISER-FRANCIS OIL CO PO Box 21468 Tulsa, OK 741211468	OGRID: 12361
	Action Number: 408452
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
christinaopf	Cement is required to circulate on both surface and intermediate1 strings of casing.	12/4/2024
christinaopf	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	12/4/2024
pkautz	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/20/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	12/20/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	12/20/2024