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.
NMNM0000587

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.
BELL LAKE / NMNM 068292X

8. Lease Name and Well No.
BELL LAKE UNIT NORTH [316707]
413H

2. Name of Operator
KAISER FRANCIS OIL COMPANY [12361]

9. API Well No. 30-025-48558

3a. Address
6733 S. Yale Ave., Tulsa, OK 74121

3b. Phone No. *(include area code)*
(918) 491-0000

10. Field and Pool, or Exploratory [98265]
OJO CHISO/WOLFCAMP, SOUTHWEST

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

At surface SENE / 1740 FNL / 175 FEL / LAT 32.336122 / LONG -103.5012797

At proposed prod. zone SWSW / 330 FSL / 350 FWL / LAT 32.3127837 / LONG -103.4995503

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 6/T23S/R34E/NMP

14. Distance in miles and direction from nearest town or post office*
20 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
175 feet

16. No of acres in lease

17. Spacing Unit dedicated to this well
480.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
30 feet

19. Proposed Depth
11434 feet / 19697 feet

20. BLM/BIA Bond No. in file
FED: WYB000055

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3453 feet

22. Approximate date work will start*
06/01/2020

23. Estimated duration
40 days

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
(Electronic Submission)	STORMI DAVIS / Ph: (918) 491-0000	02/04/2020
Title: Regulatory Analyst		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	01/21/2021
Title: Assistant Field Manager Lands & Minerals	Office: Carlsbad Field 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.

GCP Rec 03/15/2021

03/15/2021

SL

APPROVED WITH CONDITIONS

Approval Date: 01/21/2021

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**KAISER FRANCIS OIL COMPANY**
LEASE NO.:	**NMNM0000587**
WELL NAME & NO.:	**BELL LAKE UNIT NORTH 413H**
SURFACE HOLE FOOTAGE:	1740'/N & 175'/E
BOTTOM HOLE FOOTAGE	330'/S & 350'/W
LOCATION:	Section 6, T.23 S., R.34 E., NMPM
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
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1250 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

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

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

2. The **7-5/8** inch intermediate casing shall be set at **10761 feet**. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- **Excess cement calculates to less than 25% ; More cement may be needed.**

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

Option 1 (Single Stage):

- 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. **BOP Requirements**

Option 1

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi.

Option 2

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

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

D. SPECIAL REQUIREMENT (S)

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. (This is not necessary for secondary recovery unit wells)

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on

which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

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

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

    c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

    e. The results of the test shall be reported to the appropriate BLM office.

    f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to

the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

RI12212020

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

Application Data Report
01/22/2021

APD ID: 10400053946
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT NORTH
Well Type: OIL WELL

Submission Date: 02/04/2020
Well Number: 413H
Well Work Type: Drill

Highlighted data reflects the most recent changes
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Section 1 - General

APD ID: 10400053946
Tie to previous NOS? N
Submission Date: 02/04/2020
BLM Office: CARLSBAD
User: Stormi Davis
Title: Regulatory Analyst
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM0000587
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? YES
Federal or Indian agreement: FEDERAL
Agreement number: NMNM068292X
Agreement name: BELL LAKE
Keep application confidential? Y
Permitting Agent? YES
APD Operator: KAISER FRANCIS OIL COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY
Operator Address: 6733 S. Yale Ave.
Zip: 74121
Operator PO Box: PO Box 21468
Operator City: Tulsa
State: OK
Operator Phone: (918)491-0000
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: BELL LAKE UNIT NORTH
Well Number: 413H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: OJO CHISO
Pool Name: WOLFCAMP, SOUTHWEST
Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** NORTH BELL LAKE UNIT **Number:** 12

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 175 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BLUN_413H_C102_20200203111156.pdf

BLUN_413H_Pymt_20200203134710.pdf

Well work start Date: 06/01/2020 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 7661 **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 lease?
SHL Leg #1	1740	FNL	175	FEL	23S	34E	6	Aliquot SENE	32.336122	-103.5012797	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0000587	3453	0	0	N
KOP Leg #1	1740	FNL	175	FEL	23S	34E	6	Aliquot SENE	32.336122	-103.5012797	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0000587	-7407	10860	10860	N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

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 lease?
PPP Leg #1-1	1900	FNL	0	FWL	23S	34E	5	Aliquot SWNW	32.3356748	-103.500726	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 000124 4A	-7870	11400	11323	Y
PPP Leg #1-2	2640	FSL	470	FWL	23S	34E	5	Aliquot NWSW	32.3337268	-103.4991982	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0000587	-7981	12332	11434	Y
PPP Leg #1-3	2600	FSL	470	FWL	23S	34E	5	Aliquot NWSW	32.333528	-103.4991903	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0000587	-7981	12372	11434	Y
PPP Leg #1-4	0	FNL	470	FWL	23S	34E	8	Aliquot NWNW	32.326383	-103.4993154	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 064881	-7981	14972	11434	Y
PPP Leg #1-5	2640	FSL	350	FWL	23S	34E	8	Aliquot NWSW	32.3191271	-103.4994402	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7981	17612	11434	Y
EXIT Leg #1	330	FSL	350	FWL	23S	34E	8	Aliquot SWSW	32.3127837	-103.4995503	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7981	19697	11434	Y
BHL Leg #1	330	FSL	350	FWL	23S	34E	8	Aliquot SWSW	32.3127837	-103.4995503	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7981	19697	11434	Y

Melanie Wilson

From: notification@pay.gov
Sent: Monday, February 3, 2020 1:45 PM
To: mjp1692@gmail.com
Subject: Pay.gov Payment Confirmation: BLM Oil and Gas Online Payment


An official email of the United States government

Pay.gov

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact BLM OC CBS Customer Service at (303) 236-6795 or BLM_OC_CBS_Customer_Service@blm.gov.

Application Name: BLM Oil and Gas Online Payment
Pay.gov Tracking ID: 26N99SJ5
Agency Tracking ID: 75943593578
Transaction Type: Sale
Transaction Date: 02/03/2020 03:45:03 PM EST
Account Holder Name: GEORGE B KAISER
Transaction Amount: $10,230.00
Card Type: Visa
Card Number: **********0061

Company: Kaiser-Francis Oil Company
APD IDs: 10400053946
Lease Numbers: NMNM0000587
Well Numbers: 413H
Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of payment.

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.


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

Drilling Plan Data Report
01/22/2021

APD ID: 10400053946
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT NORTH
Well Type: OIL WELL

Submission Date: 02/04/2020
Well Number: 413H
Well Work Type: Drill

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
652394		3453	0	0	OTHER : Surface	NONE	N
652395		2301	1152	1152	SANDSTONE	NONE	N
652396		1931	1522	1522	SALT	NONE	N
652397		1731	1722	1722	SALT	NONE	N
652398		-1169	4622	4622	SALT	NONE	N
652399		-1419	4872	4872	SANDSTONE	NATURAL GAS, OIL	N
652400		-1619	5072	5072	SANDSTONE	NATURAL GAS, OIL	N
652401		-2459	5912	5912	SANDSTONE	NATURAL GAS, OIL	N
652402		-3819	7272	7272	SANDSTONE	NATURAL GAS, OIL	N
652403		-5059	8512	8512	LIMESTONE	NATURAL GAS, OIL	N
652404	AVALON SAND	-5122	8575	8575	SANDSTONE	NATURAL GAS, OIL	N
652405		-6062	9515	9515	SANDSTONE	NATURAL GAS, OIL	N
652412		-6595	10048	10048	SANDSTONE	NATURAL GAS, OIL	N
652419		-7029	10482	10482	LIMESTONE	NATURAL GAS, OIL	N
652420		-7489	10942	10942	SANDSTONE	NATURAL GAS, OIL	N
652421		-7781	11234	11234	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Pressure Rating (PSI): 5M **Rating Depth:** 13000

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. Remote kill line (2 min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3 min) will be installed on the choke line, 3 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 the 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 above. If the system is upgraded all of the components installed will be functional and tested.

Choke Diagram Attachment:

BLUN_Pad_12_Choke_Manifold_20200203102656.pdf

BOP Diagram Attachment:

Annular_BOP_Variance_Request_20200203095113.pdf

Cactus_Flex_Hose_16C_Certification_20200203095241.pdf

BLUN_413H_BOP_20200203120417.pdf

BLUN_413H_Well_Head_20200203120459.pdf

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	14.75	10.75	NEW	API	N	0	1212	0	1212	3453	2241	1212	J-55	40.5	ST&C	2.8	5.5	DRY	8.6	DRY	12.8
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10761	0	10761	3452	-7308	10761	HCP-110	29.7	LT&C	1.3	1.9	DRY	2.4	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19697	0	11434		-7981	19697	P-110	20	OTHER - USS Eagle SFH	1.8	2	DRY	2.8	DRY	3.2

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_413H_Casing_Assumptions_20200203120700.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_413H_Casing_Assumptions_20200203120617.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_x_20_P110_HP_USS_EAGLE_SFH_Performance_Sheet_20200203095604.pdf

BLUN_413H_Casing_Assumptions_20200203120641.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1212	584	1.72	13.5	1010	50	ExtendaCem	Poly E Flake
INTERMEDIATE	Lead		0	10761	814	2.73	11	2224	25	NeoCem	Extender
INTERMEDIATE	Tail		0	10761	556	1.2	15.6	665	25	Halcem	none
PRODUCTION	Lead		9000	19697	840	1.22	14.5	1027	15	VersaCem	Halad

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all time.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

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
10761	11434	OIL-BASED MUD	10	12							
1212	10761	OTHER : Diesel-Brine Emulsion	8.8	9.2							
0	1212	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

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

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,GAMMA RAY LOG,MUD LOG/GEOLOGIC LITHOLOGY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7135 **Anticipated Surface Pressure:** 4619

Anticipated Bottom Hole Temperature(F): 199

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BLUN_H2S_Plan_20200114113955.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUN_413H___Directional_Plan_20200203171914.pdf

Other proposed operations facets description:

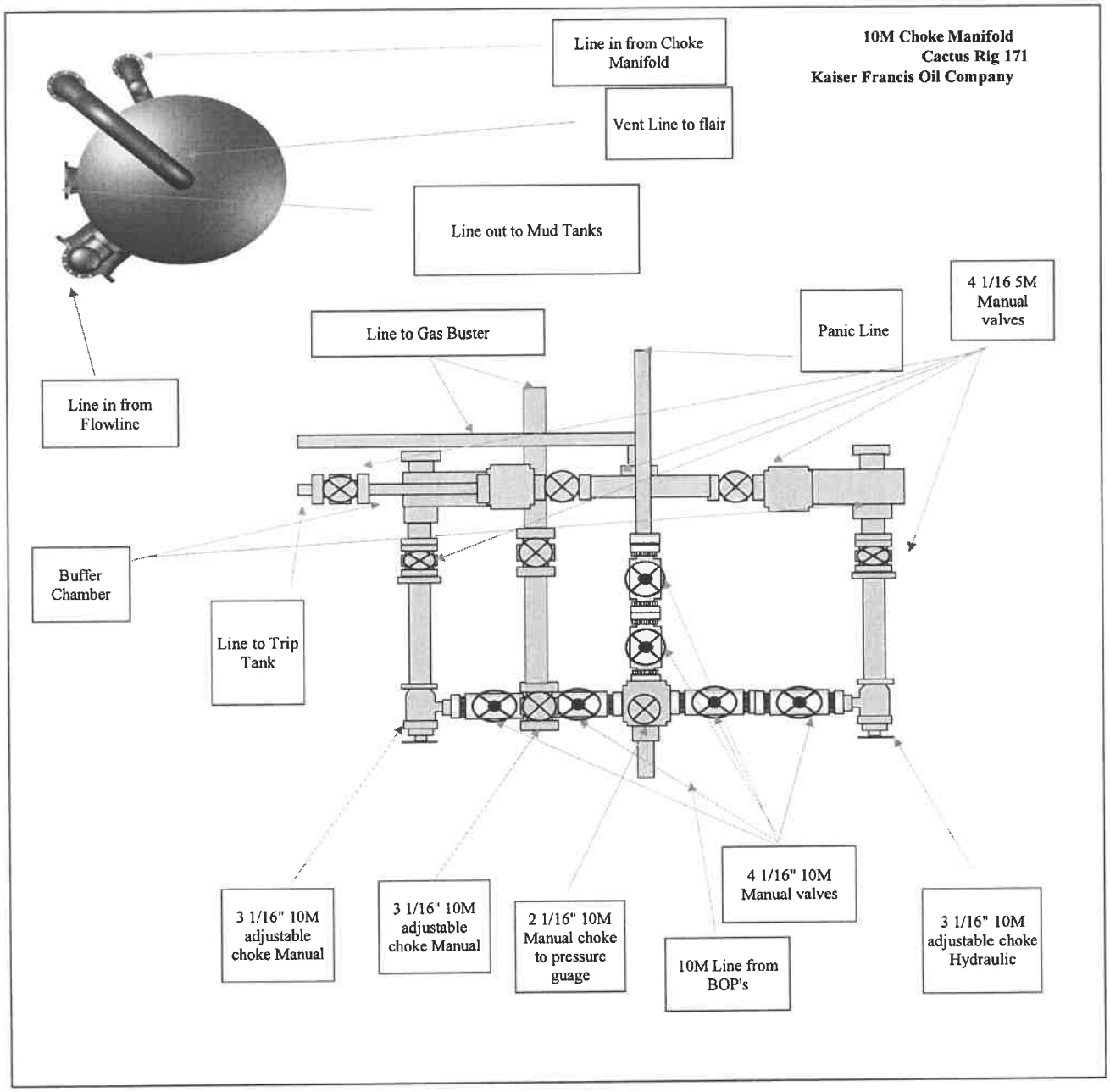
Gas Capture Plan attached

Other proposed operations facets attachment:

BLUN_Pad_12_Gas_Capture_Plan_20200124080249.pdf

Other Variance attachment:

Cactus_Flex_Hose_16C_Certification_20200203100413.pdf
BLUN_413H_Well_Head_20200203120914.pdf
BLUN_419H_5M_Variance_Request_20200203134000.pdf
BLUN_Well_Control_Plan_20200203134000.pdf


10M Choke Manifold
Cactus Rig 171
Kaiser Francis Oil Company
Line in from Choke Manifold
Vent Line to flair
Line out to Mud Tanks
4 1/16 5M Manual valves
Panic Line
Line to Gas Buster
Line in from Flowline
Buffer Chamber
Line to Trip Tank
3 1/16" 10M adjustable choke Manual
3 1/16" 10M adjustable choke Manual
2 1/16" 10M Manual choke to pressure guage
4 1/16" 10M Manual valves
10M Line from BOP's
3 1/16" 10M adjustable choke Hydraulic

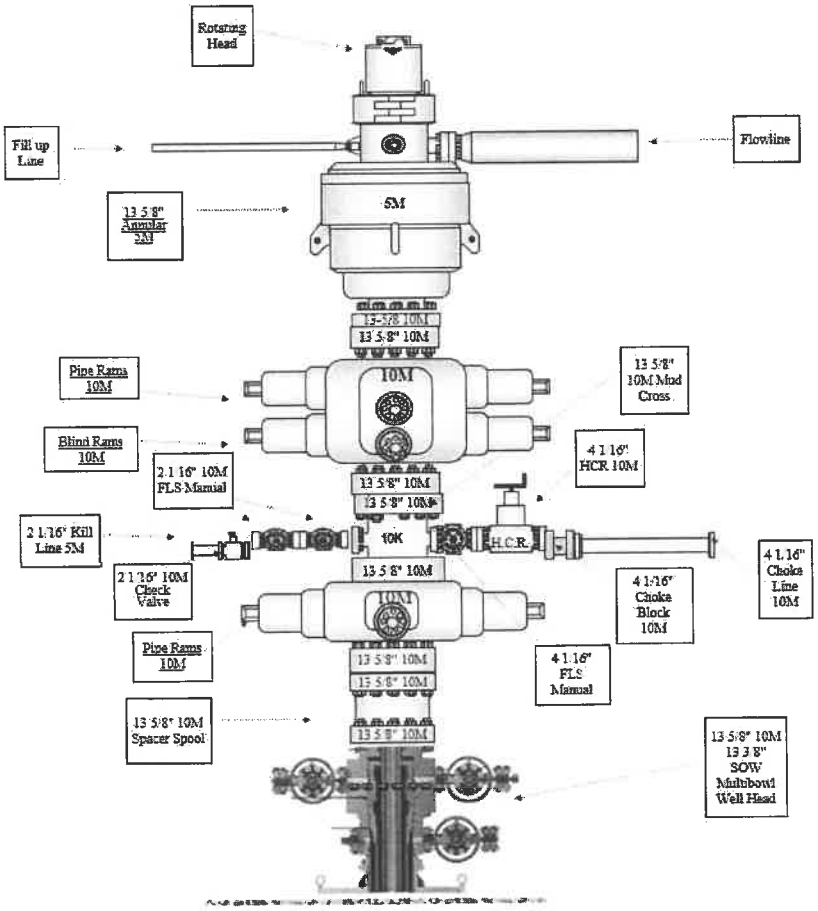
Kaiser Francis Oil Co.
10K Annular Variance Request

Kaiser Francis Oil Co. request a variance to use a 5K psi annular BOP with a 10K BOP stack. Attached are Kaiser Francis Oil Co. minimum processes required to assure a proper shut-in while drilling, tripping, open hole, and moving BHA through the BOPs. A minimum of one well control drill will be performed weekly per tour, to regulate compliance with well control procedures and plans. Drills will be determined by operations, and will variate on drills conducted. Drills will consist of but are not limited to pit, trip, open hole, and choke drills. This well control plan will be available for review to all rig personnel. A copy of well control plan will be located in the Kaiser Francis Oil Co. representative's office on location, and on the rig floor during drilling operations. All BOP equipment will be tested per Onshore O&G Order No. 2 with the exception of the 5K annular which will be tested to 70% of it rated working pressure.

A. BOP Diagram

10M BOP with 5M Annular
Kaiser Francis Oil Company

Hole Sections Utilized
***12 1/4" Hole below Surface Casing**
***8 3/4"-8 1/2" Hole below Intermediate casing**



Kaiser Francis Oil Co.
10K Annular Variance Request

B. Component and Preventer Compatibility Table

Component	OD	Preventer	RWP
Drill Pipe	4 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Heavyweight Drill Pipe	4 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Drill Collars & MWD Tools	6 1/4"-4 ¾"	Annular Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	5M 10M 10M
Mud Motor	8"-4 3/4"	Annular Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	5M 10M 10M
Production Casing	5 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Surface Casing	10-3/4"	Annular	5M
Intermediate Casing	7-5/8	Annular	5M
All	0 – 13 5/8"	Annular	5M
Open Hole		Blind Rams	10M

C. Well Control Procedures

I. General Procedures While Drilling:
- a. Sound alarm – alert crew
- b. Space out drill string
- c. Shut down pumps and stop rotary
- d. Open HCR
- e. Shut well in, utilizing upper VBRs
- f. Close choke
- g. Confirm shut in
- h. Notify rig manager and KFOC, Inc. company representative
- i. Call KFOC, Inc. engineer
- j. Read and record:
  - i. Shut in drill pressure and shut in casing pressure
  - ii. Pit gain
  - iii. Time
- k. Regroup, identify forward plan

II. General Procedures While Tripping:
- a. Sound alarm – alert crew
- b. Stab full opening safety valve and close
- c. Space out drill string
- d. Open HCR

Kaiser Francis Oil Co.
10K Annular Variance Request

e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and KFOC. company representative
i. Call KFOC. engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

III. General Procedures While Running Casing:
a. Sound alarm – alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and KFOC company representative
i. Call KFOC engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

IV. General Procedures With No Pipe in Hole (Open Hole):
a. Sound alarm – alert crew
b. Open HCR
c. Shut well in with blind rams
d. Close choke
e. Confirm shut in
f. Notify rig manager and KFOC company representative
g. Call KFOC engineer
h. Read and record:
i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
j. Regroup, identify forward plan

V. General Procedures While Pulling BHA Through BOP Stack:

1. Prior to pulling last joint of drill pipe through stack A.
Perform flow check and if flowing:
    a. Sound alarm – alert crew
    b. Stab full opening safety valve and close
    c. Space out drill string with tool joint just beneath upper pipe ram

Kaiser Francis Oil Co.
10K Annular Variance Request

d. Open HCR
e. Shut well in utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and KFOC company representative
i. Call KFOC engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

2. With BHA in the BOP stack and compatible ram preventer and pipe combo immediately available.
a. Sound alarm – alert crew
b. Stab full opening safety valve and close
c. Space out drill string with tool joint just beneath upper pipe ram
d. Open HCR
e. Shut well in utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and KFOC. company representative
i. Call KFOC engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

3. With BHA in the BOP 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 (III)
c. If impossible to pick up high enough to pull the string clear of the stack:
    i. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close
    ii. Space out drill string with tool joint just beneath the upper pipe ram
    iii. Open HCR
    iv. Shut in utilizing upper VBRs
    v. Close choke
    vi. Confirm shut in
    vii. Notify rig manager and Mesquite SWD, Inc. company representative
    viii. Read and record:
        1. Shut in drill pipe pressure and shut in casing pressure
        2. Pit gain
        3. Time

Kaiser Francis Oil Co.
10K Annular Variance Request

d. Regroup and identify forward plan

** If annular is used to shut in well and pressure build to or is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut in.

KAISER-FRANCIS OIL COMPANY
HYDROGEN SULFIDE (H_2S) CONTINGENCY PLAN
FOR DRILLING/COMPLETION WORKOVER/FACILITY

Bell Lake Unit North
SECTION 1 -T23S-R33E
SECTION 6 -T23S-R34E
SECTION 5 -T23S-R34E

LEA COUNTY, NM

This well/facility is not expected to have H_2S, but due to the sensitive location, the following is submitted as requested.

TABLE OF CONTENTS

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections below for further responsibilities:

1. Notify the senior ranking contract representative on site.
2. Notify Kaiser-Francis representative in charge.
3. Notify civil authorities if the Kaiser-Francis Representative cannot be contacted and the situation dictates.
4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

In the event of an H_2S emergency, the following plan will be initiated.

1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".

2) If for any reason a person must enter the hazardous area, they must wear a SCBA (Self contained breathing apparatus).

3) Always use the "buddy system".

4) Isolate the well/problem if possible.

5) Account for all personnel

6) Display the proper colors, warning all unsuspecting personnel of the danger at hand

7) Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

INDIVIDUAL RESPONSIBILITIES DURING AN H_2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H_2S siren and lights.

All Personnel:

1. On alarm, don escape unit (if available) and report to upwind briefing area.

Rig Manager/Tool Pusher:

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and/or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contract management and Kaiser-Francis Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

Two People Responsible for Shut-in and Rescue:

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

All Other Personnel:

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

Kaiser-Francis Oil Company Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify company management or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION:
Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release.

The decision to ignite a well should be a last resort and one if not both of the following pertain.

1) Human life and/or property are in danger.

2) There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTIONS FOR IGNITION:

1) Two people are required. They must be equipped with positive pressure; self contained breathing apparatus and a "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.

2) One of the people will be a qualified safety person who will test the atmosphere for H_2S, Oxygen, & LFL. The other person will be the company supervisor; he is responsible for igniting the well.

3) Ignite up-wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25mm flare gun shall be used, with a +/-500' range to ignite the gas.

4) Prior to ignition, make a final check for combustible gases.

5) Following ignition, continue with the emergency actions & procedures as before.

CONTACTING AUTHORITIES

Kaiser-Francis personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been reached)

	OFFCE	MOBILE
Kaiser-Francis Oil Co.	918/494-0000	
Bill Wilkinson	580/668-2335	580/221-4637
David Zerger	918/491-4350	918/557-6708
Charles Lock	918/491-4337	918/671-6510
Stuart Blake	918/491-4347	918/510-4126
Robert Sanford	918/491-4201	918/770-2682
Eric Hansen	918/491-4339	918/527-5260

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

State Police – Artesia	575/748-9718
State Police – Hobbs	575/392-5580
State Police – Carlsbad	575/885-3138
Lea County Sheriff - Lovington	575/396-3611
Local Emergency Planning Center – Lea County	575/396-8607
Local Emergency Planning Center – Eddy County	575/885-3581
Fire Fighting, Rescue & Ambulance – Carlsbad	911 or 575/885-3125
Fire Fighting, Rescue & Ambulance – Hobbs	911 or 575/397-9308
Fire Fighting – Jal Volunteer Fire Department	911 or 505/395-2221
New Mexico Oil & Gas Commission – Artesia	575/748-1283
New Mexico Oil & Gas Commission – Hobbs	575/393-6161
Air Medical Transport Services – Hobbs	800/550-1025
Med Flight Air Ambulance – Albuquerque	505/842-4433
Angel MedFlight	844/553-9033
DXP	432/580-3770
BJ Services	575/392-5556
Halliburton	575/392-6531 800/844-8451

PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event of a release with a concentration greater than 100 ppm H_2S, the ROE (Radius of Exposure) calculations will be done to determine if the following conditions have been met:

- Does the 100 ppm ROE include any public area (any place not associated with this site)
- Does the 500 ppm ROE include any public road (any road which the general public may travel)
- Is the 100 ppm ROE equal to or greater than 3000 feet

If any one of these conditions have been met then the Contingency Plan will be implemented. The following shows how to calculate the radius of exposure and an example.

Calculation for the 100 ppm ROE:

$X = [(1.589)(concentration)(Q)]^{(0.6258)}$

(H2S concentrations in decimal form)
10,000 ppm +=1.+
1,000 ppm +=.1+
100 ppm +=.01+
10 ppm +=.001+

Calculation for the 500 ppm ROE:

$X+[(0.4546)(concentration)(Q)]^{(.06258)}$

EXAMPLE: If a well/facility has been determined to have 150 ppm H_2S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFPD then:

ROE for 100 PPM $X=[(1.589)(.0150)(200)]^{(0.6258)}$
$X=2.65'$

ROE for 500 PPM $X=[(.4546)(.0150)(200)]^{(0.6258)}$
$X=1.2'$

(These calculations will be forwarded to the appropriate District NMOCD office when applicable.)

PUBLIC EVACUATION PLAN:
(When the supervisor has determined that the General Public will be involved, the following plan will be implemented)

1) Notification of the emergency response agencies of the hazardous condition and Implement evacuation procedures.

2) A trained person in H_2S safety, shall monitor with detection equipment the H_2S Concentration, wind and area of exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment will be UL approved, for use in class I groups A,B,C & D, Division I, hazardous locations. All monitors will have a minimum capability of measuring H_2S, oxygen, and flammable values.)**

3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

4) The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

CHARACTERISTICS OF H_2S AND SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

TRAINING:

All responders must have training in the detection of H_2S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H_2S monitors at all times.

PUBLIC RELATIONS

Kaiser-Francis recognizes that the news media have a legitimate interest in incidents at Kaiser-Francis facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Kaiser-Francis employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

KAISER-FRANCIS OIL COMPANY

Kaiser Francis

Bell Lake Unit North 413H
Bell Lake Unit North 413H
Bell Lake Unit North 413H
Bell Lake Unit North 413H

Plan: 191214 Bell Lake Unit North 413H

Morcor Standard Plan

03 February, 2020

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Project Bell Lake Unit North 413H

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

Site Bell Lake Unit North 413H

Site Position:		**Northing:**	487,011.35 usft	**Latitude:**	32° 20' 10.039 N
From:	Map	**Easting:**	798,322.73 usft	**Longitude:**	103° 30' 4.607 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	17-1/2 "	**Grid Convergence:**	0.45 °

Well Bell Lake Unit North 413H

Well Position	**+N/-S**	0.0 usft	**Northing:**	487,011.35 usft	**Latitude:**	32° 20' 10.039 N
	+E/-W	0.0 usft	**Easting:**	798,322.73 usft	**Longitude:**	103° 30' 4.607 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,453.1 usft

Wellbore Bell Lake Unit North 413H

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/14/2019	6.50	60.08	47,839

Design 191214 Bell Lake Unit North 413H

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	175.95

Survey Tool Program **Date** 2/3/2020

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.0	19,920.3	191214 Bell Lake Unit North 413H (Bell La	MWD	MWD - Standard

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	-3,575.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
100.0	0.00	0.00	100.0	-3,475.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
120.0	0.00	0.00	120.0	-3,455.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
20" Conductor										
200.0	0.00	0.00	200.0	-3,375.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
300.0	0.00	0.00	300.0	-3,275.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
400.0	0.00	0.00	400.0	-3,175.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
500.0	0.00	0.00	500.0	-3,075.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
600.0	0.00	0.00	600.0	-2,975.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
700.0	0.00	0.00	700.0	-2,875.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
800.0	0.00	0.00	800.0	-2,775.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
900.0	0.00	0.00	900.0	-2,675.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,000.0	0.00	0.00	1,000.0	-2,575.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,100.0	0.00	0.00	1,100.0	-2,475.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,152.0	0.00	0.00	1,152.0	-2,423.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Rustler										
1,200.0	0.00	0.00	1,200.0	-2,375.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,212.0	0.00	0.00	1,212.0	-2,363.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
13 3/8" Surface Casing										
1,300.0	0.00	0.00	1,300.0	-2,275.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,400.0	0.00	0.00	1,400.0	-2,175.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,500.0	0.00	0.00	1,500.0	-2,075.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,522.0	0.00	0.00	1,522.0	-2,053.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Salado										
1,600.0	0.00	0.00	1,600.0	-1,975.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,700.0	0.00	0.00	1,700.0	-1,875.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,722.0	0.00	0.00	1,722.0	-1,853.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Top of Salt										

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
1,800.0	0.00	0.00	1,800.0	-1,775.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1,900.0	0.00	0.00	1,900.0	-1,675.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,000.0	0.00	0.00	2,000.0	-1,575.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,100.0	0.00	0.00	2,100.0	-1,475.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,200.0	0.00	0.00	2,200.0	-1,375.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,300.0	0.00	0.00	2,300.0	-1,275.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,400.0	0.00	0.00	2,400.0	-1,175.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,500.0	0.00	0.00	2,500.0	-1,075.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,600.0	0.00	0.00	2,600.0	-975.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,700.0	0.00	0.00	2,700.0	-875.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,800.0	0.00	0.00	2,800.0	-775.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2,900.0	0.00	0.00	2,900.0	-675.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,000.0	0.00	0.00	3,000.0	-575.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,100.0	0.00	0.00	3,100.0	-475.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,200.0	0.00	0.00	3,200.0	-375.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,300.0	0.00	0.00	3,300.0	-275.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,400.0	0.00	0.00	3,400.0	-175.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,500.0	0.00	0.00	3,500.0	-75.1	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,600.0	0.00	0.00	3,600.0	24.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,700.0	0.00	0.00	3,700.0	124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,800.0	0.00	0.00	3,800.0	224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3,900.0	0.00	0.00	3,900.0	324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,000.0	0.00	0.00	4,000.0	424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,100.0	0.00	0.00	4,100.0	524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,200.0	0.00	0.00	4,200.0	624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,300.0	0.00	0.00	4,300.0	724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,400.0	0.00	0.00	4,400.0	824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
4,500.0	0.00	0.00	4,500.0	924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,600.0	0.00	0.00	4,600.0	1,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,622.0	0.00	0.00	4,622.0	1,046.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Base of Salt										
4,700.0	0.00	0.00	4,700.0	1,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,800.0	0.00	0.00	4,800.0	1,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
4,872.0	0.00	0.00	4,872.0	1,296.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Lamar										
4,900.0	0.00	0.00	4,900.0	1,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,000.0	0.00	0.00	5,000.0	1,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,072.0	0.00	0.00	5,072.0	1,496.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Bell Canyon										
5,100.0	0.00	0.00	5,100.0	1,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,200.0	0.00	0.00	5,200.0	1,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,300.0	0.00	0.00	5,300.0	1,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,400.0	0.00	0.00	5,400.0	1,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,500.0	0.00	0.00	5,500.0	1,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,600.0	0.00	0.00	5,600.0	2,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,700.0	0.00	0.00	5,700.0	2,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,800.0	0.00	0.00	5,800.0	2,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,900.0	0.00	0.00	5,900.0	2,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
5,912.0	0.00	0.00	5,912.0	2,336.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Cherry Canyon										
6,000.0	0.00	0.00	6,000.0	2,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,100.0	0.00	0.00	6,100.0	2,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,200.0	0.00	0.00	6,200.0	2,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,300.0	0.00	0.00	6,300.0	2,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,400.0	0.00	0.00	6,400.0	2,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
6,500.0	0.00	0.00	6,500.0	2,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,600.0	0.00	0.00	6,600.0	3,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,700.0	0.00	0.00	6,700.0	3,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,800.0	0.00	0.00	6,800.0	3,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,900.0	0.00	0.00	6,900.0	3,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,000.0	0.00	0.00	7,000.0	3,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,100.0	0.00	0.00	7,100.0	3,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,200.0	0.00	0.00	7,200.0	3,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,272.0	0.00	0.00	7,272.0	3,696.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Brushy Canyon										
7,300.0	0.00	0.00	7,300.0	3,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,400.0	0.00	0.00	7,400.0	3,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,500.0	0.00	0.00	7,500.0	3,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,600.0	0.00	0.00	7,600.0	4,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,700.0	0.00	0.00	7,700.0	4,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,800.0	0.00	0.00	7,800.0	4,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,900.0	0.00	0.00	7,900.0	4,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,000.0	0.00	0.00	8,000.0	4,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,100.0	0.00	0.00	8,100.0	4,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,200.0	0.00	0.00	8,200.0	4,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,300.0	0.00	0.00	8,300.0	4,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,400.0	0.00	0.00	8,400.0	4,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,500.0	0.00	0.00	8,500.0	4,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,512.0	0.00	0.00	8,512.0	4,936.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Bone Spring										
8,575.0	0.00	0.00	8,575.0	4,999.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Avalon										

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
6,500.0	0.00	0.00	6,500.0	2,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,600.0	0.00	0.00	6,600.0	3,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,700.0	0.00	0.00	6,700.0	3,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,800.0	0.00	0.00	6,800.0	3,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
6,900.0	0.00	0.00	6,900.0	3,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,000.0	0.00	0.00	7,000.0	3,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,100.0	0.00	0.00	7,100.0	3,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,200.0	0.00	0.00	7,200.0	3,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,272.0	0.00	0.00	7,272.0	3,696.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Brushy Canyon										
7,300.0	0.00	0.00	7,300.0	3,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,400.0	0.00	0.00	7,400.0	3,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,500.0	0.00	0.00	7,500.0	3,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,600.0	0.00	0.00	7,600.0	4,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,700.0	0.00	0.00	7,700.0	4,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,800.0	0.00	0.00	7,800.0	4,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7,900.0	0.00	0.00	7,900.0	4,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,000.0	0.00	0.00	8,000.0	4,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,100.0	0.00	0.00	8,100.0	4,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,200.0	0.00	0.00	8,200.0	4,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,300.0	0.00	0.00	8,300.0	4,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,400.0	0.00	0.00	8,400.0	4,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,500.0	0.00	0.00	8,500.0	4,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,512.0	0.00	0.00	8,512.0	4,936.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Bone Spring										
8,575.0	0.00	0.00	8,575.0	4,999.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Avalon										

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
8,600.0	0.00	0.00	8,600.0	5,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,700.0	0.00	0.00	8,700.0	5,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,800.0	0.00	0.00	8,800.0	5,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
8,900.0	0.00	0.00	8,900.0	5,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,000.0	0.00	0.00	9,000.0	5,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,100.0	0.00	0.00	9,100.0	5,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,200.0	0.00	0.00	9,200.0	5,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,300.0	0.00	0.00	9,300.0	5,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,400.0	0.00	0.00	9,400.0	5,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,500.0	0.00	0.00	9,500.0	5,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,515.0	0.00	0.00	9,515.0	5,939.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
1st BS Sand										
9,600.0	0.00	0.00	9,600.0	6,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,700.0	0.00	0.00	9,700.0	6,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,800.0	0.00	0.00	9,800.0	6,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
9,900.0	0.00	0.00	9,900.0	6,324.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,000.0	0.00	0.00	10,000.0	6,424.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,048.0	0.00	0.00	10,048.0	6,472.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
2nd BS Sand										
10,100.0	0.00	0.00	10,100.0	6,524.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,200.0	0.00	0.00	10,200.0	6,624.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,300.0	0.00	0.00	10,300.0	6,724.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,400.0	0.00	0.00	10,400.0	6,824.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,482.0	0.00	0.00	10,482.0	6,906.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
3rd BS Lime										
10,500.0	0.00	0.00	10,500.0	6,924.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,600.0	0.00	0.00	10,600.0	7,024.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
10,700.0	0.00	0.00	10,700.0	7,124.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,761.0	0.00	0.00	10,761.0	7,185.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
7 5/8" Intermediate Casing										
10,800.0	0.00	0.00	10,800.0	7,224.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
10,860.0	0.00	0.00	10,860.0	7,284.9	0.0	0.0	798,322.73	487,011.35	0.00	0.00
Start Build 10.00										
10,900.0	4.00	133.10	10,900.0	7,324.9	-1.0	1.0	798,323.75	487,010.40	1.02	10.00
10,942.3	8.23	133.10	10,942.0	7,366.9	-4.0	4.3	798,327.04	487,007.32	4.32	10.00
3rd BS Sand										
11,000.0	14.00	133.10	10,998.6	7,423.5	-11.6	12.4	798,335.16	486,999.72	12.48	10.00
11,100.0	24.00	133.10	11,093.0	7,517.9	-33.8	36.2	798,358.90	486,977.51	36.31	10.00
11,200.0	34.00	133.10	11,180.4	7,605.3	-66.9	71.5	798,394.26	486,944.42	71.81	10.00
11,267.5	40.75	133.10	11,234.0	7,658.9	-94.9	101.4	798,424.16	486,916.45	101.82	10.00
Wolfcamp										
11,300.0	44.00	133.10	11,258.0	7,682.9	-109.9	117.4	798,440.15	486,901.48	117.88	10.00
11,400.0	54.00	133.10	11,323.5	7,748.4	-161.4	172.5	798,495.20	486,849.98	173.13	10.00
11,500.0	64.00	133.10	11,375.0	7,799.9	-219.9	235.0	798,557.71	486,791.49	235.89	10.00
11,600.0	74.00	133.10	11,410.8	7,835.7	-283.6	303.1	798,625.79	486,727.79	304.24	10.00
11,700.0	84.00	133.10	11,429.8	7,854.7	-350.5	374.7	798,697.38	486,660.80	376.11	10.00
11,757.3	89.73	133.10	11,432.9	7,857.8	-389.6	416.4	798,739.11	486,621.76	418.00	10.00
Start DLS 1.54 TFO -87.06										
11,758.1	89.81	133.10	11,432.9	7,857.8	-390.2	417.0	798,739.73	486,621.18	418.62	10.00
11,800.0	89.82	136.32	11,433.1	7,858.0	-419.6	446.8	798,769.50	486,591.71	450.12	7.70
11,900.0	89.85	144.02	11,433.4	7,858.3	-496.4	510.8	798,833.50	486,514.97	531.18	7.70
12,000.0	89.88	151.72	11,433.6	7,858.5	-581.0	563.9	798,886.64	486,430.35	619.34	7.70
12,100.0	89.91	159.42	11,433.8	7,858.7	-672.0	605.2	798,927.96	486,339.37	713.01	7.70
12,126.2	89.92	161.44	11,433.8	7,858.7	-696.7	614.0	798,936.74	486,314.67	738.26	7.70
Start 7571.5 hold at 12126.2 MD										

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
12,200.0	89.94	167.12	11,433.9	7,858.8	-767.7	634.0	798,956.72	486,243.67	810.49	7.70
12,300.0	89.98	174.82	11,434.0	7,858.9	-866.4	649.7	798,972.40	486,144.98	910.04	7.70
12,372.4	90.00	180.40	11,434.0	7,858.9	-938.7	652.7	798,975.42	486,072.67	982.39	7.70
12,400.0	90.00	180.40	11,434.0	7,858.9	-966.3	652.5	798,975.23	486,045.08	1,009.90	0.00
12,500.0	90.00	180.40	11,434.0	7,858.9	-1,066.3	651.8	798,974.53	485,945.08	1,109.60	0.00
12,600.0	90.00	180.40	11,434.0	7,858.9	-1,166.3	651.1	798,973.84	485,845.08	1,209.30	0.00
12,700.0	90.00	180.40	11,434.0	7,858.9	-1,266.3	650.4	798,973.14	485,745.08	1,309.00	0.00
12,800.0	90.00	180.40	11,434.0	7,858.9	-1,366.3	649.7	798,972.45	485,645.09	1,408.70	0.00
12,900.0	90.00	180.40	11,434.0	7,858.9	-1,466.3	649.0	798,971.75	485,545.09	1,508.40	0.00
13,000.0	90.00	180.40	11,434.0	7,858.9	-1,566.3	648.3	798,971.06	485,445.09	1,608.10	0.00
13,100.0	90.00	180.40	11,434.0	7,858.9	-1,666.3	647.6	798,970.36	485,345.09	1,707.80	0.00
13,200.0	90.00	180.40	11,434.0	7,858.9	-1,766.3	646.9	798,969.67	485,245.10	1,807.50	0.00
13,300.0	90.00	180.40	11,434.0	7,858.9	-1,866.3	646.2	798,968.97	485,145.10	1,907.19	0.00
13,400.0	90.00	180.40	11,434.0	7,858.9	-1,966.2	645.5	798,968.28	485,045.10	2,006.89	0.00
13,500.0	90.00	180.40	11,434.0	7,858.9	-2,066.2	644.9	798,967.58	484,945.10	2,106.59	0.00
13,600.0	90.00	180.40	11,434.0	7,858.9	-2,166.2	644.2	798,966.89	484,845.11	2,206.29	0.00
13,700.0	90.00	180.40	11,434.0	7,858.9	-2,266.2	643.5	798,966.19	484,745.11	2,305.99	0.00
13,800.0	90.00	180.40	11,434.0	7,858.9	-2,366.2	642.8	798,965.50	484,645.11	2,405.69	0.00
13,900.0	90.00	180.40	11,434.0	7,858.9	-2,466.2	642.1	798,964.80	484,545.11	2,505.39	0.00
14,000.0	90.00	180.40	11,434.0	7,858.9	-2,566.2	641.4	798,964.11	484,445.11	2,605.09	0.00
14,100.0	90.00	180.40	11,434.0	7,858.9	-2,666.2	640.7	798,963.41	484,345.12	2,704.79	0.00
14,200.0	90.00	180.40	11,434.0	7,858.9	-2,766.2	640.0	798,962.72	484,245.12	2,804.49	0.00
14,300.0	90.00	180.40	11,434.0	7,858.9	-2,866.2	639.3	798,962.02	484,145.12	2,904.19	0.00
14,400.0	90.00	180.40	11,434.0	7,858.9	-2,966.2	638.6	798,961.32	484,045.12	3,003.89	0.00
14,500.0	90.00	180.40	11,434.0	7,858.9	-3,066.2	637.9	798,960.63	483,945.13	3,103.59	0.00
14,600.0	90.00	180.40	11,434.0	7,858.9	-3,166.2	637.2	798,959.93	483,845.13	3,203.29	0.00
14,700.0	90.00	180.40	11,434.0	7,858.9	-3,266.2	636.5	798,959.24	483,745.13	3,302.99	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
14,800.0	90.00	180.40	11,434.0	7,858.9	-3,366.2	635.8	798,958.54	483,645.13	3,402.69	0.00
14,900.0	90.00	180.40	11,434.0	7,858.9	-3,466.2	635.1	798,957.85	483,545.14	3,502.38	0.00
15,000.0	90.00	180.40	11,434.0	7,858.9	-3,566.2	634.4	798,957.15	483,445.14	3,602.08	0.00
15,100.0	90.00	180.40	11,434.0	7,858.9	-3,666.2	633.7	798,956.46	483,345.14	3,701.78	0.00
15,200.0	90.00	180.40	11,434.0	7,858.9	-3,766.2	633.0	798,955.76	483,245.14	3,801.48	0.00
15,300.0	90.00	180.40	11,434.0	7,858.9	-3,866.2	632.3	798,955.07	483,145.15	3,901.18	0.00
15,400.0	90.00	180.40	11,434.0	7,858.9	-3,966.2	631.6	798,954.37	483,045.15	4,000.88	0.00
15,500.0	90.00	180.40	11,434.0	7,858.9	-4,066.2	630.9	798,953.68	482,945.15	4,100.58	0.00
15,600.0	90.00	180.40	11,434.0	7,858.9	-4,166.2	630.3	798,952.98	482,845.15	4,200.28	0.00
15,700.0	90.00	180.40	11,434.0	7,858.9	-4,266.2	629.6	798,952.29	482,745.16	4,299.98	0.00
15,800.0	90.00	180.40	11,434.0	7,858.9	-4,366.2	628.9	798,951.59	482,645.16	4,399.68	0.00
15,900.0	90.00	180.40	11,434.0	7,858.9	-4,466.2	628.2	798,950.90	482,545.16	4,499.38	0.00
16,000.0	90.00	180.40	11,434.0	7,858.9	-4,566.2	627.5	798,950.20	482,445.16	4,599.08	0.00
16,100.0	90.00	180.40	11,434.0	7,858.9	-4,666.2	626.8	798,949.51	482,345.17	4,698.78	0.00
16,200.0	90.00	180.40	11,434.0	7,858.9	-4,766.2	626.1	798,948.81	482,245.17	4,798.48	0.00
16,300.0	90.00	180.40	11,434.0	7,858.9	-4,866.2	625.4	798,948.12	482,145.17	4,898.18	0.00
16,400.0	90.00	180.40	11,434.0	7,858.9	-4,966.2	624.7	798,947.42	482,045.17	4,997.87	0.00
16,500.0	90.00	180.40	11,434.0	7,858.9	-5,066.2	624.0	798,946.73	481,945.18	5,097.57	0.00
16,600.0	90.00	180.40	11,434.0	7,858.9	-5,166.2	623.3	798,946.03	481,845.18	5,197.27	0.00
16,700.0	90.00	180.40	11,434.0	7,858.9	-5,266.2	622.6	798,945.34	481,745.18	5,296.97	0.00
16,800.0	90.00	180.40	11,434.0	7,858.9	-5,366.2	621.9	798,944.64	481,645.18	5,396.67	0.00
16,900.0	90.00	180.40	11,434.0	7,858.9	-5,466.2	621.2	798,943.95	481,545.19	5,496.37	0.00
17,000.0	90.00	180.40	11,434.0	7,858.9	-5,566.2	620.5	798,943.25	481,445.19	5,596.07	0.00
17,100.0	90.00	180.40	11,434.0	7,858.9	-5,666.2	619.8	798,942.56	481,345.19	5,695.77	0.00
17,200.0	90.00	180.40	11,434.0	7,858.9	-5,766.2	619.1	798,941.86	481,245.19	5,795.47	0.00
17,300.0	90.00	180.40	11,434.0	7,858.9	-5,866.2	618.4	798,941.17	481,145.19	5,895.17	0.00
17,400.0	90.00	180.40	11,434.0	7,858.9	-5,966.2	617.7	798,940.47	481,045.20	5,994.87	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
17,500.0	90.00	180.40	11,434.0	7,858.9	-6,066.2	617.0	798,939.78	480,945.20	6,094.57	0.00
17,600.0	90.00	180.40	11,434.0	7,858.9	-6,166.1	616.3	798,939.08	480,845.20	6,194.27	0.00
17,700.0	90.00	180.40	11,434.0	7,858.9	-6,266.1	615.7	798,938.38	480,745.20	6,293.97	0.00
17,800.0	90.00	180.40	11,434.0	7,858.9	-6,366.1	615.0	798,937.69	480,645.21	6,393.67	0.00
17,900.0	90.00	180.40	11,434.0	7,858.9	-6,466.1	614.3	798,936.99	480,545.21	6,493.37	0.00
18,000.0	90.00	180.40	11,434.0	7,858.9	-6,566.1	613.6	798,936.30	480,445.21	6,593.06	0.00
18,100.0	90.00	180.40	11,434.0	7,858.9	-6,666.1	612.9	798,935.60	480,345.21	6,692.76	0.00
18,200.0	90.00	180.40	11,434.0	7,858.9	-6,766.1	612.2	798,934.91	480,245.22	6,792.46	0.00
18,300.0	90.00	180.40	11,434.0	7,858.9	-6,866.1	611.5	798,934.21	480,145.22	6,892.16	0.00
18,400.0	90.00	180.40	11,434.0	7,858.9	-6,966.1	610.8	798,933.52	480,045.22	6,991.86	0.00
18,500.0	90.00	180.40	11,434.0	7,858.9	-7,066.1	610.1	798,932.82	479,945.22	7,091.56	0.00
18,600.0	90.00	180.40	11,434.0	7,858.9	-7,166.1	609.4	798,932.13	479,845.23	7,191.26	0.00
18,700.0	90.00	180.40	11,434.0	7,858.9	-7,266.1	608.7	798,931.43	479,745.23	7,290.96	0.00
18,800.0	90.00	180.40	11,434.0	7,858.9	-7,366.1	608.0	798,930.74	479,645.23	7,390.66	0.00
18,900.0	90.00	180.40	11,434.0	7,858.9	-7,466.1	607.3	798,930.04	479,545.23	7,490.36	0.00
19,000.0	90.00	180.40	11,434.0	7,858.9	-7,566.1	606.6	798,929.35	479,445.24	7,590.06	0.00
19,100.0	90.00	180.40	11,434.0	7,858.9	-7,666.1	605.9	798,928.65	479,345.24	7,689.76	0.00
19,200.0	90.00	180.40	11,434.0	7,858.9	-7,766.1	605.2	798,927.96	479,245.24	7,789.46	0.00
19,300.0	90.00	180.40	11,434.0	7,858.9	-7,866.1	604.5	798,927.26	479,145.24	7,889.16	0.00
19,400.0	90.00	180.40	11,434.0	7,858.9	-7,966.1	603.8	798,926.57	479,045.25	7,988.86	0.00
19,500.0	90.00	180.40	11,434.0	7,858.9	-8,066.1	603.1	798,925.87	478,945.25	8,088.56	0.00
19,600.0	90.00	180.40	11,434.0	7,858.9	-8,166.1	602.4	798,925.18	478,845.25	8,188.25	0.00
19,697.8	90.00	180.40	11,434.0	7,858.9	-8,263.9	601.8	798,924.50	478,747.45	8,285.76	0.00
TD at 19697.8 - 5 1/2" Production Casing										
19,700.0	90.00	180.40	11,434.0	7,858.9	-8,266.1	601.8	798,924.48	478,745.25	8,287.95	0.00
19,800.0	90.00	180.40	11,434.0	7,858.9	-8,366.1	601.1	798,923.79	478,645.26	8,387.65	0.00
19,900.0	90.00	180.40	11,434.0	7,858.9	-8,466.1	600.4	798,923.09	478,545.26	8,487.35	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
19,920.3	90.00	180.40	11,434.0	7,858.9	-8,486.4	600.2	798,922.95	478,524.95	8,507.60	0.00

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
10,761.0	10,761.0	7 5/8" Intermediate Casing	7-5/8	9-7/8
1,212.0	1,212.0	13 3/8" Surface Casing	13-3/8	14-3/4
120.0	120.0	20" Conductor	20	26
19,697.8	11,434.0	5 1/2" Production Casing	5-1/2	6-3/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
11,267.5	11,234.0	Wolfcamp		0.00	
10,482.0	10,482.0	3rd BS Lime		0.00	
1,722.0	1,722.0	Top of Salt		0.00	
8,512.0	8,512.0	Bone Spring		0.00	
10,942.3	10,942.0	3rd BS Sand		0.00	
1,522.0	1,522.0	Salado		0.00	
1,152.0	1,152.0	Rustler		0.00	
4,872.0	4,872.0	Lamar		0.00	
8,575.0	8,575.0	Avalon		0.00	
10,048.0	10,048.0	2nd BS Sand		0.00	
7,272.0	7,272.0	Brushy Canyon		0.00	
5,912.0	5,912.0	Cherry Canyon		0.00	
9,515.0	9,515.0	1st BS Sand		0.00	
4,622.0	4,622.0	Base of Salt		0.00	
5,072.0	5,072.0	Bell Canyon		0.00	

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit North 413H
Project:	Bell Lake Unit North 413H	**TVD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Site:	Bell Lake Unit North 413H	**MD Reference:**	WELL @ 3575.1usft (Original Well Elev)
Well:	Bell Lake Unit North 413H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit North 413H	**Survey Calculation Method:**	Minimum Curvature
Design:	191214 Bell Lake Unit North 413H	**Database:**	EDM 5000.1 Single User Db

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,860.0	10,860.0	0.0	0.0	Start Build 10.00
11,757.3	11,433.1	-402.3	404.0	Start DLS 1.54 TFO -87.06
12,126.2	11,433.9	-710.1	602.2	Start 7571.5 hold at 12126.2 MD
19,697.8	11,434.0	-8,252.3	1,234.3	TD at 19697.8

Checked By: _____ Approved By: _____ Date: _____

AFMSS

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

SUPO Data Report
01/22/2021

APD ID: 10400053946 **Submission Date:** 02/04/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BLUN_413H_Existing_Roads_20200203120932.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BLUN_413H_Access_Road_20200203120945.pdf

New road type: RESOURCE

Length: 882 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 2

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

New road access plan or profile prepared? N

New road access plan attachment:

Access road engineering design? N

Access road engineering design attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: BLM's caliche pit in SWSW Section 22-T24-R34E or NENE Section 20-T23S-R33E.

Onsite topsoil removal process: The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160 X 160 area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistent with local drainage patterns.

Road Drainage Control Structures (DCS) description: The ditches will be 3' wide with 3:1 slopes

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BLUN_413H_1MILE_WELLS_20200203121008.pdf

BLUN_413H_1_Mile_Wells_Map_20200203121008.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Production facilities are planned for the south side of pad. Plan for initial wells: 2-1000 bbl water tanks and 5 -1000 bbl oil tanks, a temporary 6X20 horizontal 3-phase sep, a 48 X 10 3-phase sep, a 8 X 20 heater treater and a 48X 10 2-phase sep

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Brine Water

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Source trai is a mixture of Federal, State and County.

Water source volume (barrels): 20000

Source volume (acre-feet): 2.57786193

Source volume (gal): 840000

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION
OTHER
SURFACE CASING

Describe use type: ROAD/PAD CONSTRUCTION ANI

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Source trai is a mixture of Federal, State and County.

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Water source and transportation map:

BLUN_Pad_12_Water_Source_Map_20200124081154.pdf

Water source comments: Source transportation land ownership is a mixture of Federal, State and County.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: On site caliche will be used for construction if sufficient. In the event insufficient quantities of caliche are available onsite, caliche will be trucked in from BLM's caliche pit in SWSW Section 22-T24-R34E or NENE Section 20-T23S-R33E.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : Weekly

Safe containment description: All drilling fluids will be stored safely and disposed of properly

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Cuttings will be hauled to R360's facility located in Section 27-T20S-R32E on US 62/180 at Halfway, NM

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste material will be stored safely and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility (Carlsbad sewer plant SENW Section 10-T22S-R27E)

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : Weekly

Safe containment description: Trash produced during drilling and completion operations will be collected in a trash container and disposed of properly

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility (Sandpoint Landfill (solid materials dump) NW/4 Section 11-T21S-R28E)

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Cuttings will be stored in roll off bins and hauled to R360 located in Section 27-T20S-R32E on US 62/180 near Halfway.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BLUN_413H_Wellsite_Layout_20200203121111.pdf

BLUN_Pad_12_Drilling_Layout_20200827151003.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** NORTH BELL LAKE UNIT

Multiple Well Pad Number: 12

Recontouring attachment:

BLUN_Pad_12_IR_20200827151026.pdf

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area.

Drainage/Erosion control reclamation: Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Well pad proposed disturbance (acres): 5.96
Road proposed disturbance (acres): 0.607
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 0

Total proposed disturbance: 6.567

Well pad interim reclamation (acres): 0.91
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0

Total interim reclamation: 0.91

Well pad long term disturbance (acres): 5.05
Road long term disturbance (acres): 0.607
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0

Total long term disturbance: 5.657

Disturbance Comments:

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations
Soil treatment: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Existing Vegetation at the well pad: The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses
Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Refer to "Existing Vegetation at the well pad'

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Refer to "Existing Vegetation at the well pad'

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: None

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: No invasive species present. Standard regular maintenance to maintain a clear location and road.

Weed treatment plan attachment:

Monitoring plan description: Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

Monitoring plan attachment:

Success standards: To maintain all disturbed areas as per Gold Book standards

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NM STATE LAND OFFICE, 602 N CANAL ST B, CARLSBAD, NM 88220

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NM STATE LAND OFFICE, 602 N CANAL STE B, CARLSBAD NM 88220

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Section 12 - Other Information

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted 10/24/2019 by Nik MacPhee (BLM), Eric Hansen (Kaiser-Francis) and Frank Jaramillo (Madron Surveying).

Other SUPO Attachment

AFMSS

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

PWD Data Report
01/22/2021

APD ID: 10400053946 **Submission Date:** 02/04/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

01/22/2021

APD ID: 10400053946 **Submission Date:** 02/04/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: WYB000055

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-48558	98265	Ojo Chiso; Wolfcamp, Southwest

[4] Property Code	[5] Property Name	[6] Well Number
316707	BELL LAKE UNIT NORTH	413H

[7] OGRID No.	[8] Operator Name	[9] Elevation
12361	KAISER-FRANCIS OIL CO.	3453.1

[10] Surface Location

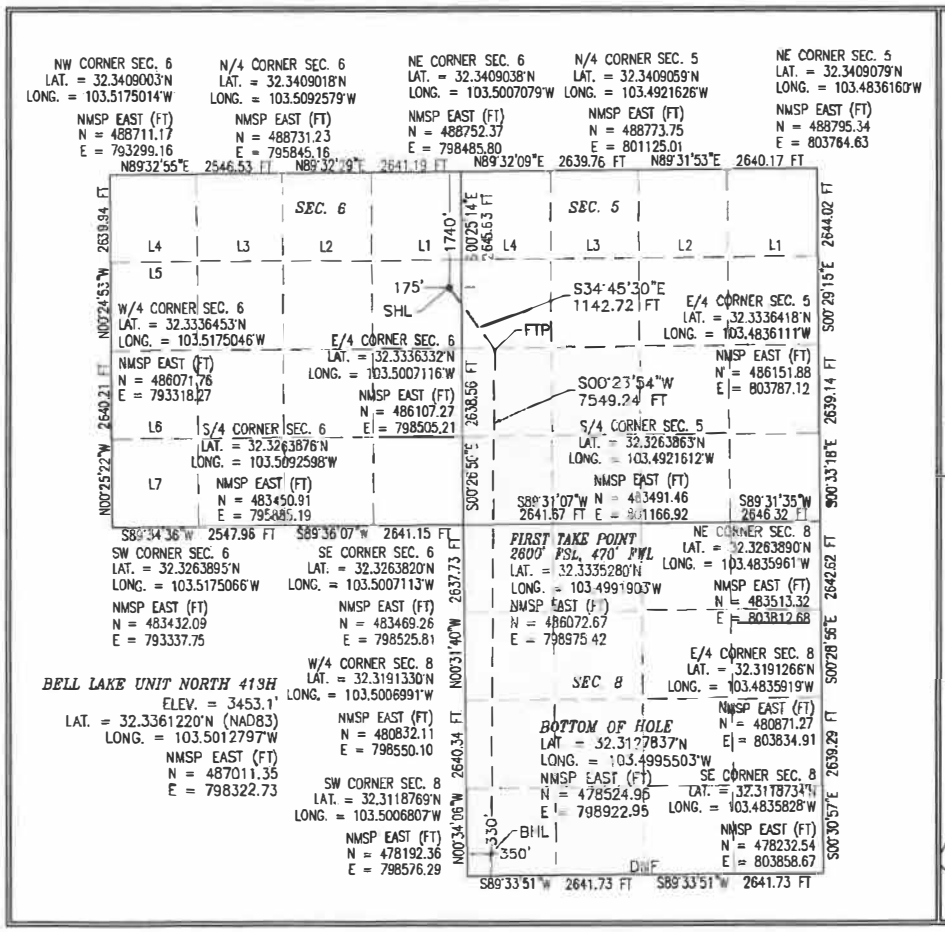
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	6	23 S	34 E		1740	NORTH	175	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	23 S	34 E		330	SOUTH	350	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
480			R-14602

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stormi Davis 1/31/20
Signature Date

Stormi Davis
Printed Name

ssdavis104@gmail.com
E-mail Address

[18] SURVEYOR 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.

OCTOBER 17, 2019
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number: 12797

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: **01/10/2020**

☒ Original

Operator & OGRID No.: Kaiser-Francis Oil Company, 12361

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit North 212H		6-23S-34E		2000	0	
Bell Lake Unit North 213H		6-23S-34E		2000	0	
Bell Lake Unit North 312H		6-23S-34E		2000	0	
Bell Lake Unit North 313H		6-23S-34E		2000	0	
Bell Lake Unit North 412H		6-23S-34E		2000	0	
Bell Lake Unit North 413H		6-23S-34E	**30-025-48558**	2000	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Targa and will be connected to Targa low/high pressure gathering system located in _Lea_ County, New Mexico. It will require _11,000' of pipeline to connect the facility to low/high pressure gathering system. Kaiser-Francis Oil Company provides (periodically) to Targa a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Kaiser-Francis Oil Company and Targa have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Targa Processing Plant located in Sec._36_, Twn.__19S_, Rng._36E, __Lea__ County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Targa system at that time. Based on current information, it is Kaiser-Francis Oil Company's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Pressure Rating (PSI): 5M **Rating Depth:** 13000

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. Remote kill line (2 min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3 min) will be installed on the choke line, 3 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 the 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 above. If the system is upgraded all of the components installed will be functional and tested.
Choke Diagram Attachment:

BLUN_Pad_12_Choke_Manifold_20200203102656.pdf

BOP Diagram Attachment:

Annular_BOP_Variance_Request_20200203095113.pdf

Cactus_Flex_Hose_16C_Certification_20200203095241.pdf

BLUN_413H_BOP_20200203120417.pdf

BLUN_413H_Well_Head_20200203120459.pdf

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	14.75	10.75	NEW	API	N	0	1212	0	1212	3453	2241	1212	J-55	40.5	ST&C	2.8	5.5	DRY	8.6	DRY	12.8
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10761	0	10761	3452	-7308	10761	HCP-110	29.7	LT&C	1.3	1.9	DRY	2.4	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19697	0	11434		-7981	19697	P-110	20	OTHER - USS Eagle SFH	1.8	2	DRY	2.8	DRY	3.2

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_413H_Casing_Assumptions_20200203120700.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_413H_Casing_Assumptions_20200203120617.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_x_20_P110_HP_USS_EAGLE_SFH_Performance_Sheet_20200203095604.pdf

BLUN_413H_Casing_Assumptions_20200203120641.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH **Well Number:** 413H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1212	584	1.72	13.5	1010	50	ExtendaCem	Poly E Flake
INTERMEDIATE	Lead		0	10761	814	2.73	11	2224	25	NeoCem	Extender
INTERMEDIATE	Tail		0	10761	556	1.2	15.6	665	25	Halcem	none
PRODUCTION	Lead		9000	19697	840	1.22	14.5	1027	15	VersaCem	Halad

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all time.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

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
10761	11434	OIL-BASED MUD	10	12							
1212	10761	OTHER : Diesel-Brine Emulsion	8.8	9.2							
0	1212	OTHER : Fresh Water	8.4	9							

Date: 3/12/2021

To: NMOCD

From: Charlotte Van Valkenburg

Re: Closed-Loop System

It is the intention of Kaiser-Francis Oil Company to use a closed-loop system during drilling of the following well:

Bell Lake Unit North 413H
Sec. 6-23S-34E
Lea Co., NM

C. Van Valkenburg

Charlotte Van Valkenburg
Mgr., Regulatory Compliance
Kaiser-Francis Oil Company

District I
1625 N. French Dr., Hobbs, NM 88240
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1000 Rio Brazos Rd., Aztec, NM 87410
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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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CONDITIONS

Action 20665

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK74121	12361	20665	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
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