BLM P/P

Form 3160-3
(June 2015)

HOBBS OCD
DEC 05 2019
RECEIVED

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.
NMNM100594

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 / NMNM068292X

8. Lease Name and Well No.
BELL LAKE UNIT SOUTH
218H (316706)

2. Name of Operator
KAISER FRANCIS OIL COMPANY (12361)

9. API Well No.
30-025-46593

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

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

10. Field and Pool, or Exploratory (98264)
BELL LAKE / BONE SPRING, SOUTH

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

At surface SENE / 2169 FNL / 283 FEL / LAT 32.247871 / LONG -103.484399

At proposed prod. zone SESE / 330 FSL / 530 FEL / LAT 32.225733 / LONG -103.485164

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 5 / T24S / R34E / NMP

14. Distance in miles and direction from nearest town or post office*
19 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)
2169 feet

16. No of acres in lease
438.76

17. Spacing Unit dedicated to this well
240

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1700 feet

19. Proposed Depth
10862 feet / 18686 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3574 feet

22. Approximate date work will start*
04/01/2019

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)	Melanie Wilson / Ph: (918)527-5260	01/23/2019

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/15/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

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 12/5/19

APPROVED WITH CONDITIONS

KZ 12/11/19

SL

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/15/2019

Additional Operator Remarks

Location of Well

1. SHL: SENE / 2169 FNL / 283 FEL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.247871 / LONG: -103.484399 (TVD: 0 feet, MD: 0 feet)
   PPP: NESE / 2600 FSL / 350 FEL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.24648 / LONG: -103.484612 (TVD: 10862 feet, MD: 11136 feet)
   PPP: NENE / 0 FNL / 383 FEL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.2393364 / LONG: -103.4848217 (TVD: 10862 feet, MD: 13736 feet)
   PPP: NESE / 2640 FNL / 421 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.2320817 / LONG: -103.484992 (TVD: 10862 feet, MD: 16376 feet)
   BHL: SESE / 330 FSL / 530 FEL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.225733 / LONG: -103.485164 (TVD: 10862 feet, MD: 18686 feet)

BLM Point of Contact

Name: Tanja Baca
Title: Admin Support Assistant
Phone: 5752345940
Email: tabaca@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Kaiser Francis**
LEASE NO.:	**NMLC0061374A**
WELL NAME & NO.:	**Bell Lake Unit South 218H**
SURFACE HOLE FOOTAGE:	**2169' FNL & 283' FEL**
BOTTOM HOLE FOOTAGE	**330' FSL & 530' FEL**
LOCATION:	**Section 5, T 24S, R 34E, NMPM**
COUNTY:	**Lea County, New Mexico**

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
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	[x] Unit

A. HYDROGEN SULFIDE

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **500 feet** prior to drilling into the **Bell Lake** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8"** surface casing shall be set at approximately **1350'** (a minimum of 25' into the Rustler Anhydrite and above the salt) and cemented to surface.
   a. **If cement does not circulate to 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 **6 hours** after pumping cement, ideally between 8-10 hours after.
   b. WOC time for a primary cement job will be a minimum of **8 hours** or **500 psi** compressive strength, whichever is greater. This is to include the lead cement.
   c. If cement falls back, remedial cementing will be done prior to drilling out the shoe.
   d. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.

2. The **9-5/8"** intermediate casing shall be cemented to surface.
   a. **If cement does not circulate to surface,** see B.1.a, c & d.
3. The **5-1/2"** production casing shall be cemented with at least **200' tie-back** into the previous casing. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.
3. Variance for the use of a flex hose between the BOP and choke manifold is approved, however, the hose must meet API 16C specification as described in the attachments following these conditions.

D. SPECIAL REQUIREMENTS

1. 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 once it has been established.
   a. A commercial well determination shall be submit after production has been established for at least six months. Secondary recovery unit wells are exempt from this requirement.

DR 11/5/2019

GENERAL REQUIREMENTS

1. The BLM is to be notified in advance for a representative to witness:
   a. Spudding the well (minimum of 24 hours)
   b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
   c. BOP/BOPE tests (minimum of 4 hours)

      ☒ Eddy County: Call the Carlsbad Field Office, (575) 361-2822

      ☒ Lea County: Call the Hobbs Field Station, (575) 393-3612
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig:
      i. Notify the BLM when moving in and removing the Spudder Rig.
      ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      iii. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
3. 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.
4. 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 available upon request. 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 the portion of 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. 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. 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 Onshore Order 2 III.A.2.i must be followed.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the BOP/BOPE 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 which 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. The results of the test shall be made available upon request.
   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 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. This test shall be performed prior to the test at full stack pressure.

f. BOP/BOPE must be tested 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

1. 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

1. 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.
2. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

AFMSS

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

Operator Certification Data Report

11/18/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are

NAME: Melanie Wilson **Signed on:** 12/07/2018

Title: Regulatory Analyst

Street Address:

City: **State:** **Zip:**

Phone: (918)527-5260

Email address: erich@kfoc.net

Field Representative

Representative Name: Eric Hansen

Street Address: P.O. Box 21468

City: Tulsa **State:** OK **Zip:** 74121-1468

Phone: (918)527-5260

Email address:

AFMSS

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

Application Data Report

11/18/2019

APD ID: 10400037573 **Submission Date:** 01/23/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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

[redacted]

Show Final Text

Section 1 - General

APD ID: 10400037573 **Tie to previous NOS?** N **Submission Date:** 01/23/2019

BLM Office: CARLSBAD **User:** Melanie Wilson **Title:** Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM100594 **Lease Acres:** 438.76

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? YES **Federal or Indian agreement:** FEDERAL

Agreement number: NMNM068292X

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **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 SOUTH **Well Number:** 218H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BELL LAKE **Pool Name:** BONE SPRING, SOUTH

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SOUTH BELL LAKE UNIT **Number:** 16

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: 19 Miles **Distance to nearest well:** 1700 FT **Distance to lease line:** 2169 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Bell_Lake_Unit_South_218H__C102_20190123121131.pdf

Bell_Lake_Unit_South_218H__Pymt_Receipt_20190123122942.pdf

Well work start Date: 04/01/2019 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 17110853 **Reference Datum:**

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
SHL Leg #1	2169	FNL	283	FEL	24S	34E	5	SENE	32.247871	-103.484399	LEA	NEW MEXI	NEW MEXI	F	FEE	3574	0	0	
KOP Leg #1	2198	FNL	338	FEL	24S	34E	5	SENE	32.247923	-103.484772	LEA	NEW MEXI	NEW MEXI	F	FEE	-6811	10386	10385	

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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
PPP Leg #1-1	2640	FNL	421	FWL	24S	34E	8	NESE	32.2320817	-103.484992	LEA	NEW MEXI	NEW MEXI	F	FEE	-7288	16376	10862	
PPP Leg #1-2	0	FNL	383	FEL	24S	34E	8	NENE	32.2393364	-103.4848217	LEA	NEW MEXI	NEW MEXI	F	NMNM 100594	-7288	13736	10862	
PPP Leg #1-3	2600	FSL	350	FEL	24S	34E	5	NESE	32.24648	-103.484612	LEA	NEW MEXI	NEW MEXI	F	FEE	-7288	11136	10862	
EXIT Leg #1	330	FSL	530	FEL	24S	34E	8	SESE	32.225733	-103.485164	LEA	NEW MEXI	NEW MEXI	F	FEE	-7288	18686	10862	
BHL Leg #1	330	FSL	530	FEL	24S	34E	8	SESE	32.225733	-103.485164	LEA	NEW MEXI	NEW MEXI	F	FEE	-7288	18686	10862	

APD ID: 10400037573 **Submission Date:** 01/23/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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

[redacted]

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3574	0	0		NONE	N
2	RUSTLER	2174	1400	1400		NONE	N
3	SALADO	1774	1800	1800		NONE	N
4	TOP SALT	1449	2125	2125		NONE	N
5	BASE OF SALT	-1526	5100	5100		NONE	N
6	LAMAR	-1701	5275	5275		NATURAL GAS,OIL	N
7	BELL CANYON	-1776	5350	5350		NATURAL GAS,OIL	N
8	CHERRY CANYON	-2651	6225	6225		NATURAL GAS,OIL	N
9	BRUSHY CANYON	-4126	7700	7700		NATURAL GAS,OIL	N
10	BONE SPRING	-5226	8800	8800		NATURAL GAS,OIL	N
11	AVALON SAND	-5399	8973	8973		NATURAL GAS,OIL	N
12	BONE SPRING 1ST	-6326	9900	9900		NATURAL GAS,OIL	N
13	BONE SPRING 2ND	-6911	10485	10485		NATURAL GAS,OIL	Y
14	BONE SPRING LIME	-7386	10960	10960		NATURAL GAS,OIL	N
15	BONE SPRING 3RD	-7696	11270	11270		NATURAL GAS,OIL	N
16	WOLFCAMP	-8161	11735	11735		NATURAL GAS,OIL	N

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Pressure Rating (PSI): 5M **Rating Depth:** 18000

Equipment: A 10M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams and a blind ram. 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

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:

Bell_Lake_Unit_South_218H__Choke_Manifold_20190102121330.pdf

BOP Diagram Attachment:

Bell_Lake_Unit_South_218H__BOP_20190102121409.pdf

Bell_Lake_Unit_South_218H_FlexHose_Data_20190117100143.pdf

Bell_Lake_Unit_South_218H__Wellhead_Diagram_20190117110209.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	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1350	0	1350			1350	J-55	54.5	OTHER - BTC	1.8	4.3	DRY	7	DRY	11.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5200	0	5200			5200	HCP-110	40	LT&C	1.8	3.3	DRY	6.1	DRY	6.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18686	0	10862			18686	P-110	20	OTHER - GBCD	2.2	2.5	DRY	2.5	DRY	3

Casing Attachments

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_218H__Casing_Assumptions_20190117101350.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_218H__Casing_Assumptions_20190117101411.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bell_Lake_Unit_South_218H__Casing_Specs_20190102122159.PDF

Bell_Lake_Unit_South_218H__Casing_Assumptions_20190117101428.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	730	1.75	13.5	1275	75	Halcem	4% Bentonite
INTERMEDIATE	Lead		0	5200	1000	2.09	12.5	2089	75	Econocem	KolSeal
INTERMEDIATE	Tail		0	5200	380	1.33	14.8	506	75	Halcem	none
PRODUCTION	Lead		4000	18686	228	3.49	10.5	794	10	NeoCem	KolSeal
PRODUCTION	Tail		4000	18686	2000	1.22	14.5	3285	10	Versacem	none

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 times

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
5200	18686	OTHER : Cut Brine	8.7	8.9							
1350	5200	OTHER : Brine	8.7	8.9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1350	OTHER : Fresh Water	8.4	9							

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:

DS,GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5027 **Anticipated Surface Pressure:** 2637.36

Anticipated Bottom Hole Temperature(F): 165

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:

Bell_Lake_Unit_South_218H__H2S_Contingency_Plan_20190102123505.pdf

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Bell_Lake_Unit_South_218H__Directional_Plan_20190102123850.pdf

Other proposed operations facets description:

Gas Capture Plan attached

Other proposed operations facets attachment:

Bell_Lake_Unit_South_218H__Gas_Capture_Plan_20190102124025.pdf

Other Variance attachment:

Bell_Lake_Unit_South_218H_FlexHose_Data_20190117101700.pdf

Formation Name	Formation Top TVD
Rustler	1400
Salado	1800
Top of Salt	2125
Base of Salt	5100
Lamar	5275
Bell Canyon	5350
Cherry Canyon	6225
Brushy Canyon	7700
Bone Spring	8800
Avalon	8973
1 BSS	9900
2 BSS	10485
3 BSL	10960
3 BSS	11270
Wolfcamp	11735

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120'	20"				New		120
Surface	1350'	13-3/8"	54.5	J-55	BTC	New	17-1/2"	1350
Intermediate	5200'	9-5/8"	40	HCP-110	LTC	New	12-1/4"	5200
Production	18686	5-1/2"	20	P110	GBCD	New	8-3/4"	10862

Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss
FW	8.4 - 9.0	32 - 34	NC
Brine	8.7 - 8.9	28	NC
Cut Brine	8.7 - 8.9	28-29	NC

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	632	1130	2730	853000	514000
8.9	2408	4230	7900	1260000	1266000
8.9	5027	11100	12640	641000	548000

Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor	Joint Tensile Safety Factor
1.8	4.3	11.6	7.0
1.8	3.3	6.1	6.1
2.2	2.5	3.0	2.5

Company: Kaiser-Francis
Site: Bell Lake Unit South 218H
Well: Bell Lake Unit South 218H
Project: Lea County, New Mexico (NAD 83)
Rig: Cactus 171

MS Directional

Kaiser-Francis Oil Company

T G M

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.38°

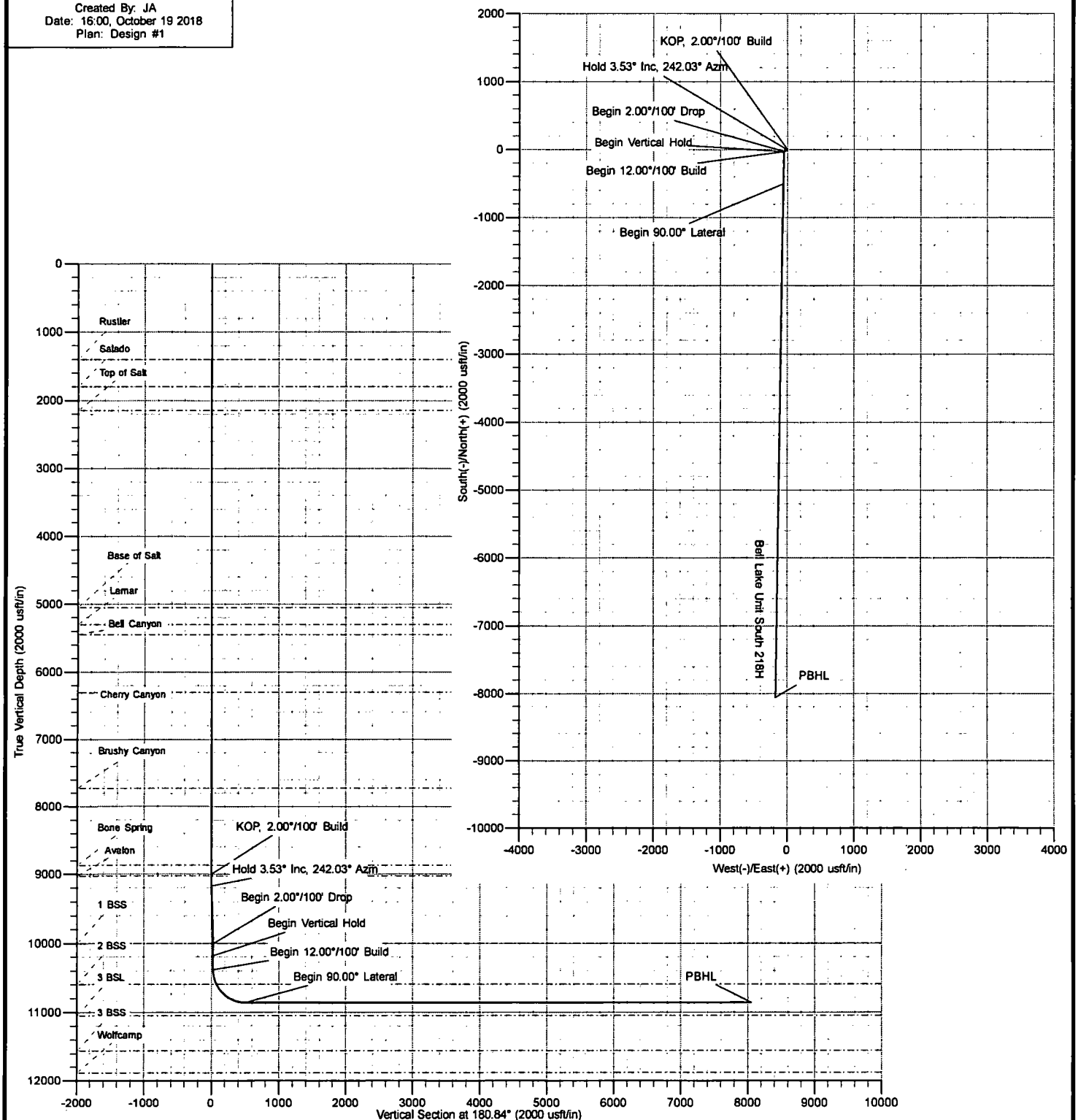
Magnetic Field
Strength: 47851.0nT
Dip Angle: 60.04°
Date: 11/20/2018
Model: BGGM2018

US State Plane 1983
New Mexico Eastern Zone

Created By: JA
Date: 16:00, October 19 2018
Plan: Design #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	0.00	KOP, 2.00°/100' Build
9176.69	3.53	242.03	9176.58	-2.55	-4.81	2.62	5.45	Hold 3.53° Inc, 242.03° Azm
10009.66	3.53	242.03	10007.96	-26.63	-50.16	27.36	56.79	Begin 2.00°/100' Drop
10186.35	0.00	0.00	10184.54	-29.19	-54.97	29.99	62.24	Begin Vertical Hold
10386.34	0.00	0.00	10384.54	-29.19	-54.97	29.99	62.24	Begin 12.00°/100' Build
11136.34	90.00	180.84	10862.00	-506.60	-62.00	507.45	539.70	Begin 90.00° Lateral
18686.36	90.00	180.84	10862.00	-8055.80	-173.20	8057.47	8089.72	PBHL



Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Bell Lake Unit South 218H				
Site Position:		**Northing:**	454,946.50 usft	**Latitude:**	32° 14' 52.337 N
From:	Map	**Easting:**	803,790.90 usft	**Longitude:**	103° 29' 3.835 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well	Bell Lake Unit South 218H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	454,946.50 usft	**Latitude:**	32° 14' 52.337 N
	+E/-W	0.00 usft	**Easting:**	803,790.90 usft	**Longitude:**	103° 29' 3.835 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,573.70 usft
Grid Convergence:		0.453 °				

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2018	11/20/2018	6.830	60.037	47,851.04

Design	Design #1			
Audit Notes:				
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	180.84

Plan Survey Tool Program **Date** 10/19/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,685.46	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
9,176.69	3.53	242.03	9,176.58	-2.55	-4.81	2.00	2.00	0.00	242.032	
10,009.66	3.53	242.03	10,007.96	-26.63	-50.16	0.00	0.00	0.00	0.000	
10,186.35	0.00	0.00	10,184.54	-29.19	-54.97	2.00	-2.00	0.00	180.000	VP BLUS 218H
10,386.34	0.00	0.00	10,384.54	-29.19	-54.97	0.00	0.00	0.00	0.000	
11,136.34	90.00	180.84	10,862.00	-506.60	-62.00	12.00	12.00	0.00	180.844	
18,686.36	90.00	180.84	10,862.00	-8,055.80	-173.20	0.00	0.00	0.00	0.000	PBHL BLUS 218H

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
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Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,150.00	0.00	0.00	2,150.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
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Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,050.00	0.00	0.00	5,050.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,450.00	0.00	0.00	5,450.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,730.00	0.00	0.00	7,730.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,870.00	0.00	0.00	8,870.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 2.00°/100' Build									

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,030.00	0.60	242.03	9,030.00	-0.07	-0.14	0.08	2.00	2.00	0.00
Avalon									
9,100.00	2.00	242.03	9,099.98	-0.82	-1.54	0.84	2.00	2.00	0.00
9,176.69	3.53	242.03	9,176.58	-2.55	-4.81	2.62	2.00	2.00	0.00
Hold 3.53° Inc, 242.03° Azm									
9,200.00	3.53	242.03	9,199.84	-3.23	-6.08	3.32	0.00	0.00	0.00
9,300.00	3.53	242.03	9,299.65	-6.12	-11.52	6.29	0.00	0.00	0.00
9,400.00	3.53	242.03	9,399.46	-9.01	-16.97	9.26	0.00	0.00	0.00
9,500.00	3.53	242.03	9,499.27	-11.90	-22.41	12.23	0.00	0.00	0.00
9,600.00	3.53	242.03	9,599.08	-14.79	-27.86	15.20	0.00	0.00	0.00
9,700.00	3.53	242.03	9,698.89	-17.68	-33.30	18.17	0.00	0.00	0.00
9,800.00	3.53	242.03	9,798.70	-20.57	-38.74	21.14	0.00	0.00	0.00
9,900.00	3.53	242.03	9,898.51	-23.46	-44.19	24.11	0.00	0.00	0.00
10,001.68	3.53	242.03	10,000.00	-26.40	-49.72	27.13	0.00	0.00	0.00
1 BSS									
10,009.66	3.53	242.03	10,007.96	-26.63	-50.16	27.36	0.00	0.00	0.00
Begin 2.00°/100' Drop									
10,100.00	1.73	242.03	10,098.21	-28.58	-53.82	29.36	2.00	-2.00	0.00
10,186.35	0.00	0.00	10,184.54	-29.19	-54.97	29.99	2.00	-2.00	0.00
Begin Vertical Hold - VP BLUS 218H									
10,200.00	0.00	0.00	10,198.19	-29.19	-54.97	29.99	0.00	0.00	0.00
10,300.00	0.00	0.00	10,298.19	-29.19	-54.97	29.99	0.00	0.00	0.00
10,386.34	0.00	0.00	10,384.54	-29.19	-54.97	29.99	0.00	0.00	0.00
Begin 12.00°/100' Build									
10,400.00	1.64	180.84	10,398.19	-29.38	-54.97	30.19	12.00	12.00	0.00
10,425.00	4.64	180.84	10,423.15	-30.75	-54.99	31.55	12.00	12.00	0.00
10,450.00	7.64	180.84	10,448.00	-33.42	-55.03	34.23	12.00	12.00	0.00
10,475.00	10.64	180.84	10,472.68	-37.39	-55.09	38.20	12.00	12.00	0.00
10,500.00	13.64	180.84	10,497.12	-42.65	-55.17	43.45	12.00	12.00	0.00
10,525.00	16.64	180.84	10,521.25	-49.18	-55.26	49.98	12.00	12.00	0.00
10,550.00	19.64	180.84	10,545.01	-56.96	-55.38	57.76	12.00	12.00	0.00
10,575.00	22.64	180.84	10,568.32	-65.97	-55.51	66.78	12.00	12.00	0.00
10,598.74	25.49	180.84	10,590.00	-75.65	-55.65	76.46	12.00	12.00	0.00
2 BSS									
10,600.00	25.64	180.84	10,591.13	-76.19	-55.66	77.00	12.00	12.00	0.00
10,625.00	28.64	180.84	10,613.38	-87.59	-55.83	88.40	12.00	12.00	0.00
10,650.00	31.64	180.84	10,635.00	-100.14	-56.01	100.95	12.00	12.00	0.00
10,675.00	34.64	180.84	10,655.93	-113.81	-56.21	114.62	12.00	12.00	0.00
10,700.00	37.64	180.84	10,676.11	-128.55	-56.43	129.36	12.00	12.00	0.00
10,725.00	40.64	180.84	10,695.50	-144.32	-56.66	145.14	12.00	12.00	0.00
10,750.00	43.64	180.84	10,714.04	-161.09	-56.91	161.91	12.00	12.00	0.00
10,775.00	46.64	180.84	10,731.67	-178.81	-57.17	179.63	12.00	12.00	0.00
10,800.00	49.64	180.84	10,748.35	-197.43	-57.45	198.25	12.00	12.00	0.00
10,825.00	52.64	180.84	10,764.04	-216.89	-57.73	217.71	12.00	12.00	0.00
10,850.00	55.64	180.84	10,778.68	-237.14	-58.03	237.97	12.00	12.00	0.00
10,875.00	58.64	180.84	10,792.24	-258.14	-58.34	258.97	12.00	12.00	0.00
10,900.00	61.64	180.84	10,804.69	-279.82	-58.66	280.65	12.00	12.00	0.00
10,925.00	64.64	180.84	10,815.98	-302.11	-58.99	302.95	12.00	12.00	0.00
10,950.00	67.64	180.84	10,826.10	-324.97	-59.32	325.81	12.00	12.00	0.00
10,975.00	70.64	180.84	10,835.00	-348.33	-59.67	349.16	12.00	12.00	0.00
11,000.00	73.64	180.84	10,842.67	-372.12	-60.02	372.96	12.00	12.00	0.00
11,025.00	76.64	180.84	10,849.08	-396.28	-60.37	397.12	12.00	12.00	0.00
11,050.00	79.64	180.84	10,854.21	-420.74	-60.74	421.58	12.00	12.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,075.00	82.64	180.84	10,858.07	-445.43	-61.10	446.28	12.00	12.00	0.00
11,100.00	85.64	180.84	10,860.62	-470.30	-61.47	471.15	12.00	12.00	0.00
11,125.00	88.64	180.84	10,861.87	-495.26	-61.83	496.11	12.00	12.00	0.00
11,136.34	90.00	180.84	10,862.00	-506.60	-62.00	507.45	12.00	12.00	0.00
Begin 90.00° Lateral - FTP BLUS 218H									
11,200.00	90.00	180.84	10,862.00	-570.25	-62.94	571.11	0.00	0.00	0.00
11,300.00	90.00	180.84	10,862.00	-670.24	-64.41	671.11	0.00	0.00	0.00
11,400.00	90.00	180.84	10,862.00	-770.23	-65.88	771.11	0.00	0.00	0.00
11,500.00	90.00	180.84	10,862.00	-870.22	-67.36	871.11	0.00	0.00	0.00
11,600.00	90.00	180.84	10,862.00	-970.21	-68.83	971.11	0.00	0.00	0.00
11,700.00	90.00	180.84	10,862.00	-1,070.20	-70.30	1,071.11	0.00	0.00	0.00
11,800.00	90.00	180.84	10,862.00	-1,170.19	-71.77	1,171.11	0.00	0.00	0.00
11,900.00	90.00	180.84	10,862.00	-1,270.17	-73.25	1,271.11	0.00	0.00	0.00
12,000.00	90.00	180.84	10,862.00	-1,370.16	-74.72	1,371.11	0.00	0.00	0.00
12,100.00	90.00	180.84	10,862.00	-1,470.15	-76.19	1,471.11	0.00	0.00	0.00
12,200.00	90.00	180.84	10,862.00	-1,570.14	-77.67	1,571.11	0.00	0.00	0.00
12,300.00	90.00	180.84	10,862.00	-1,670.13	-79.14	1,671.11	0.00	0.00	0.00
12,400.00	90.00	180.84	10,862.00	-1,770.12	-80.61	1,771.11	0.00	0.00	0.00
12,500.00	90.00	180.84	10,862.00	-1,870.11	-82.08	1,871.11	0.00	0.00	0.00
12,600.00	90.00	180.84	10,862.00	-1,970.10	-83.56	1,971.11	0.00	0.00	0.00
12,700.00	90.00	180.84	10,862.00	-2,070.09	-85.03	2,071.11	0.00	0.00	0.00
12,800.00	90.00	180.84	10,862.00	-2,170.08	-86.50	2,171.11	0.00	0.00	0.00
12,900.00	90.00	180.84	10,862.00	-2,270.07	-87.98	2,271.11	0.00	0.00	0.00
13,000.00	90.00	180.84	10,862.00	-2,370.05	-89.45	2,371.11	0.00	0.00	0.00
13,100.00	90.00	180.84	10,862.00	-2,470.04	-90.92	2,471.11	0.00	0.00	0.00
13,200.00	90.00	180.84	10,862.00	-2,570.03	-92.39	2,571.11	0.00	0.00	0.00
13,300.00	90.00	180.84	10,862.00	-2,670.02	-93.87	2,671.11	0.00	0.00	0.00
13,400.00	90.00	180.84	10,862.00	-2,770.01	-95.34	2,771.11	0.00	0.00	0.00
13,500.00	90.00	180.84	10,862.00	-2,870.00	-96.81	2,871.11	0.00	0.00	0.00
13,600.00	90.00	180.84	10,862.00	-2,969.99	-98.29	2,971.11	0.00	0.00	0.00
13,700.00	90.00	180.84	10,862.00	-3,069.98	-99.76	3,071.11	0.00	0.00	0.00
13,800.00	90.00	180.84	10,862.00	-3,169.97	-101.23	3,171.11	0.00	0.00	0.00
13,900.00	90.00	180.84	10,862.00	-3,269.96	-102.70	3,271.11	0.00	0.00	0.00
14,000.00	90.00	180.84	10,862.00	-3,369.95	-104.18	3,371.11	0.00	0.00	0.00
14,100.00	90.00	180.84	10,862.00	-3,469.94	-105.65	3,471.11	0.00	0.00	0.00
14,200.00	90.00	180.84	10,862.00	-3,569.92	-107.12	3,571.11	0.00	0.00	0.00
14,300.00	90.00	180.84	10,862.00	-3,669.91	-108.60	3,671.11	0.00	0.00	0.00
14,400.00	90.00	180.84	10,862.00	-3,769.90	-110.07	3,771.11	0.00	0.00	0.00
14,500.00	90.00	180.84	10,862.00	-3,869.89	-111.54	3,871.11	0.00	0.00	0.00
14,600.00	90.00	180.84	10,862.00	-3,969.88	-113.01	3,971.11	0.00	0.00	0.00
14,700.00	90.00	180.84	10,862.00	-4,069.87	-114.49	4,071.11	0.00	0.00	0.00
14,800.00	90.00	180.84	10,862.00	-4,169.86	-115.96	4,171.11	0.00	0.00	0.00
14,900.00	90.00	180.84	10,862.00	-4,269.85	-117.43	4,271.11	0.00	0.00	0.00
15,000.00	90.00	180.84	10,862.00	-4,369.84	-118.91	4,371.11	0.00	0.00	0.00
15,100.00	90.00	180.84	10,862.00	-4,469.83	-120.38	4,471.11	0.00	0.00	0.00
15,200.00	90.00	180.84	10,862.00	-4,569.82	-121.85	4,571.11	0.00	0.00	0.00
15,300.00	90.00	180.84	10,862.00	-4,669.81	-123.32	4,671.11	0.00	0.00	0.00
15,400.00	90.00	180.84	10,862.00	-4,769.79	-124.80	4,771.11	0.00	0.00	0.00
15,500.00	90.00	180.84	10,862.00	-4,869.78	-126.27	4,871.11	0.00	0.00	0.00
15,600.00	90.00	180.84	10,862.00	-4,969.77	-127.74	4,971.11	0.00	0.00	0.00
15,700.00	90.00	180.84	10,862.00	-5,069.76	-129.22	5,071.11	0.00	0.00	0.00
15,800.00	90.00	180.84	10,862.00	-5,169.75	-130.69	5,171.11	0.00	0.00	0.00
15,900.00	90.00	180.84	10,862.00	-5,269.74	-132.16	5,271.11	0.00	0.00	0.00
16,000.00	90.00	180.84	10,862.00	-5,369.73	-133.63	5,371.11	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,100.00	90.00	180.84	10,862.00	-5,469.72	-135.11	5,471.11	0.00	0.00	0.00
16,200.00	90.00	180.84	10,862.00	-5,569.71	-136.58	5,571.11	0.00	0.00	0.00
16,300.00	90.00	180.84	10,862.00	-5,669.70	-138.05	5,671.11	0.00	0.00	0.00
16,400.00	90.00	180.84	10,862.00	-5,769.69	-139.53	5,771.11	0.00	0.00	0.00
16,500.00	90.00	180.84	10,862.00	-5,869.68	-141.00	5,871.11	0.00	0.00	0.00
16,600.00	90.00	180.84	10,862.00	-5,969.66	-142.47	5,971.11	0.00	0.00	0.00
16,700.00	90.00	180.84	10,862.00	-6,069.65	-143.94	6,071.11	0.00	0.00	0.00
16,800.00	90.00	180.84	10,862.00	-6,169.64	-145.42	6,171.11	0.00	0.00	0.00
16,900.00	90.00	180.84	10,862.00	-6,269.63	-146.89	6,271.11	0.00	0.00	0.00
17,000.00	90.00	180.84	10,862.00	-6,369.62	-148.36	6,371.11	0.00	0.00	0.00
17,100.00	90.00	180.84	10,862.00	-6,469.61	-149.84	6,471.11	0.00	0.00	0.00
17,200.00	90.00	180.84	10,862.00	-6,569.60	-151.31	6,571.11	0.00	0.00	0.00
17,300.00	90.00	180.84	10,862.00	-6,669.59	-152.78	6,671.11	0.00	0.00	0.00
17,400.00	90.00	180.84	10,862.00	-6,769.58	-154.25	6,771.11	0.00	0.00	0.00
17,500.00	90.00	180.84	10,862.00	-6,869.57	-155.73	6,871.11	0.00	0.00	0.00
17,600.00	90.00	180.84	10,862.00	-6,969.56	-157.20	6,971.11	0.00	0.00	0.00
17,700.00	90.00	180.84	10,862.00	-7,069.55	-158.67	7,071.11	0.00	0.00	0.00
17,800.00	90.00	180.84	10,862.00	-7,169.53	-160.15	7,171.11	0.00	0.00	0.00
17,900.00	90.00	180.84	10,862.00	-7,269.52	-161.62	7,271.11	0.00	0.00	0.00
18,000.00	90.00	180.84	10,862.00	-7,369.51	-163.09	7,371.11	0.00	0.00	0.00
18,100.00	90.00	180.84	10,862.00	-7,469.50	-164.56	7,471.11	0.00	0.00	0.00
18,200.00	90.00	180.84	10,862.00	-7,569.49	-166.04	7,571.11	0.00	0.00	0.00
18,300.00	90.00	180.84	10,862.00	-7,669.48	-167.51	7,671.11	0.00	0.00	0.00
18,400.00	90.00	180.84	10,862.00	-7,769.47	-168.98	7,771.11	0.00	0.00	0.00
18,500.00	90.00	180.84	10,862.00	-7,869.46	-170.46	7,871.11	0.00	0.00	0.00
18,600.00	90.00	180.84	10,862.00	-7,969.45	-171.93	7,971.11	0.00	0.00	0.00
18,686.36	90.00	180.84	10,862.00	-8,055.80	-173.20	8,057.47	0.00	0.00	0.00
PBHL - PBHL BLUS 218H									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP BLUS 218H - plan hits target center - Point	0.00	0.00	10,184.54	-29.19	-54.97	454,917.31	803,735.93	32° 14' 52.052 N	103° 29' 4.477 W
PBHL BLUS 218H - plan hits target center - Point	0.00	0.00	10,862.00	-8,055.80	-173.20	446,890.70	803,617.70	32° 13' 32.639 N	103° 29' 6.592 W
FTP BLUS 218H - plan hits target center - Point	0.00	0.00	10,862.00	-506.60	-62.00	454,439.90	803,728.90	32° 14' 47.329 N	103° 29' 4.603 W

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 218H
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Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3573.7 @ 3595.70usft (Cactus 171)
Site:	Bell Lake Unit South 218H	**North Reference:**	Grid
Well:	Bell Lake Unit South 218H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,400.00	1,400.00	Rustler		0.000	180.84
1,800.00	1,800.00	Salado		0.000	180.84
2,150.00	2,150.00	Top of Salt		0.000	180.84
5,050.00	5,050.00	Base of Salt		0.000	180.84
5,300.00	5,300.00	Lamar		0.000	180.84
5,450.00	5,450.00	Bell Canyon		0.000	180.84
6,300.00	6,300.00	Cherry Canyon		0.000	180.84
7,730.00	7,730.00	Brushy Canyon		0.000	180.84
8,870.00	8,870.00	Bone Spring		0.000	180.84
9,030.00	9,030.00	Avalon		0.000	180.84
10,001.68	10,000.00	1 BSS		0.000	180.84
10,598.74	10,590.00	2 BSS		0.000	180.84

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
9,000.00	9,000.00	0.00	0.00	KOP, 2.00°/100' Build
9,176.69	9,176.58	-2.55	-4.81	Hold 3.53° Inc, 242.03° Azm
10,009.66	10,007.96	-26.63	-50.16	Begin 2.00°/100' Drop
10,186.35	10,184.54	-29.19	-54.97	Begin Vertical Hold
10,386.34	10,384.54	-29.19	-54.97	Begin 12.00°/100' Build
11,136.34	10,862.00	-506.60	-62.00	Begin 90.00° Lateral
18,686.36	10,862.00	-8,055.80	-173.20	PBHL

APD ID: 10400037573 **Submission Date:** 01/23/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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

[redacted]
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Bell_Lake_Unit_South_218H__Existing_Roads_20190102124954.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:

Bell_Lake_Unit_South_218H__Access_Road_Map_20190117101856.pdf

New road type: RESOURCE

Length: 3671 Feet **Width (ft.):** 25

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

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 15

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? NO

New road access plan attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Access road engineering design? NO

Access road engineering design attachment:

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: Material will be obtained from BLM caliche pit in SWSW Section 22-T24S-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 consistentwith 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:

Bell_Lake_Unit_South_218H__One_Mile_Map_20190102130005.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 48"X 10' 2-phase sep

Section 5 - Location and Types of Water Supply

Water Source Table

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:

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Source transportation land ownership: OTHER

Describe transportation land ownership:

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Water source and transportation map:

Bell_Lake_Unit_South_218H__Water_Source_Map_20190117102802.pdf

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

New water well? NO

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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Section 7 - Methods for Handling Waste

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

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

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling fluids 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: Cuttings will be hauled to R360's facility on US 62/180 at Halfway, NM

Reserve Pit

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cuttings will be stored in roll off bins and hauled to R360 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?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Bell_Lake_Unit_South_218H__Well_Site_Layout_20190102130554.pdf

Bell_Lake_Unit_South_218H_Drilling_Layout_20190117131445.pdf

Comments:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Section 10 - Plans for Surface Reclamation

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

Multiple Well Pad Number: 16

Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area. As per request of rancher, a berm will be constructed along the east side of well pad.

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

Well pad proposed disturbance (acres): 5.97

Road proposed disturbance (acres): 2.007691

Powerline proposed disturbance (acres): 0

Pipeline proposed disturbance (acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 7.977691

Well pad interim reclamation (acres): 0

Road interim reclamation (acres): 0

Powerline interim reclamation (acres): 0

Pipeline interim reclamation (acres): 0

Other interim reclamation (acres): 0

Total interim reclamation: 0

Well pad long term disturbance (acres): 5.97

Road long term disturbance (acres): 2.007691

Powerline long term disturbance (acres): 0

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 7.977691

Disturbance Comments: Plan to reclaim 130' on the north side and 80' on the west side of well pad.

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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Eric **Last Name:** Hansen

Phone: (432)684-9696 **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

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

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

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 SOUTH **Well Number:** 218H

Fee Owner: COG Operating LLC **Fee Owner Address:** 600 W Illinois Ave

Phone: (432)683-7443 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Surface Use and Compensation Agreement exists between COG Operating LLC and Kaiser-Francis Oil Company

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

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 SOUTH **Well Number:** 218H

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

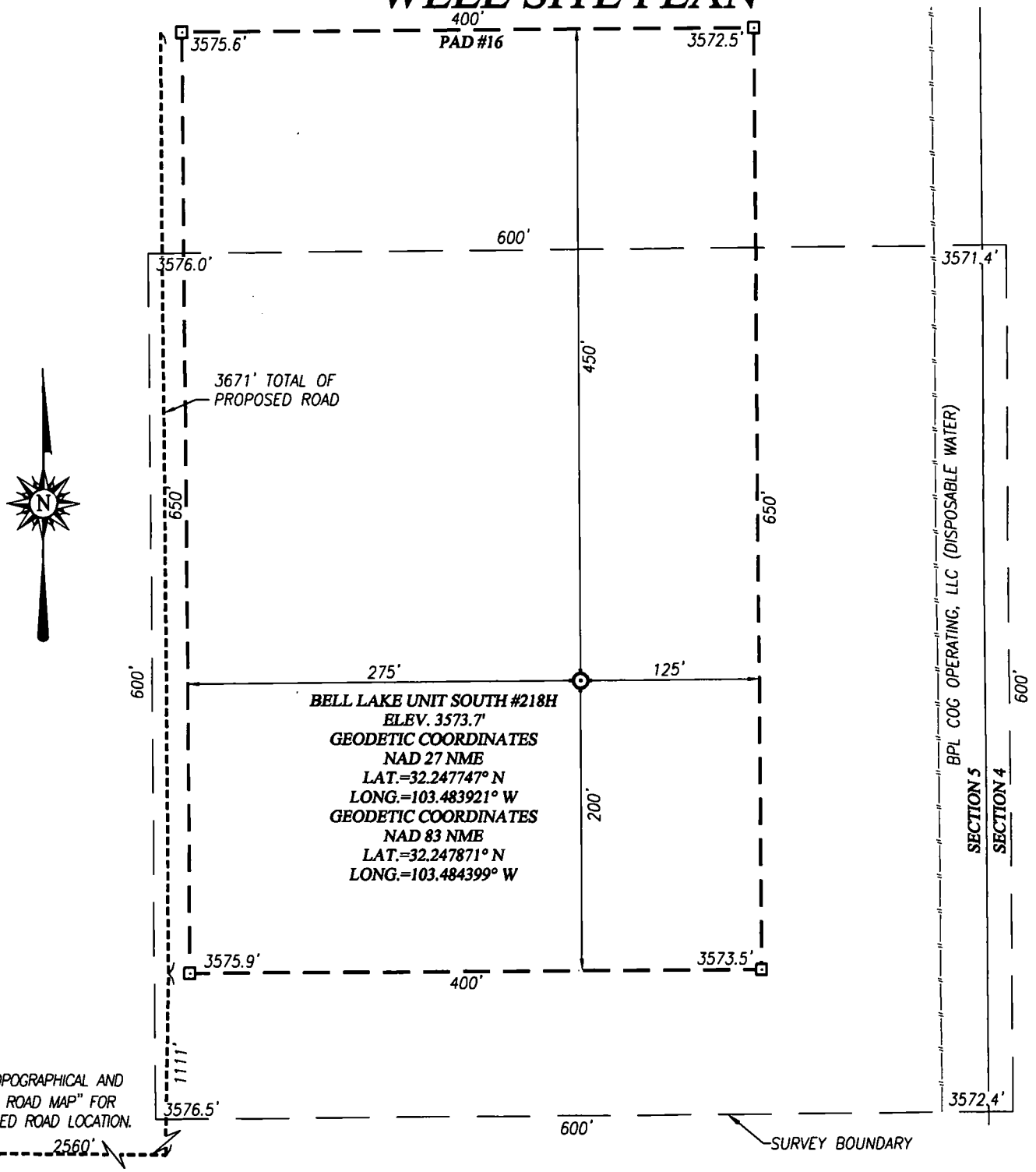
SUPO Additional Information:

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

WELL SITE PLAN



NOTE:
SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 3 MILES TO CO. RD. J-21 (SHELL RD.), TURN RIGHT ON LEASE ROAD AND GO EAST APPROX. 0.8 MILES, TURN RIGHT AND GO SOUTH APPROX. 0.4 MILES. TURN LEFT AND GO SOUTHEAST APPROX. 0.2 MILES TO EXISTING PAD AND WELL. FROM THE NORTHEAST CORNER OF PAD FOLLOW PROPOSED ROAD SURVEY EAST APPROX. 0.5 MILES, THEN NORTH 1111 FEET TO THE NORTHWEST CORNER OF THIS LOCATION.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

KAISER-FRANCIS OIL COMPANY

BELL LAKE UNIT SOUTH #218H WELL LOCATED 2169 FEET FROM THE NORTH LINE AND 283 FEET FROM THE EAST LINE OF SECTION 5, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 9/14/17	CAD Date: 10/12/17		Drawn By: ACK
W.O. No.: 17110853	Rev: .	Rel. W.O.:	Sheet 1 of 1

AFMSS

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

PWD Data Report

11/18/2019

APD ID: 10400037573 **Submission Date:** 01/23/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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? NO

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 SOUTH **Well Number:** 218H

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? NO

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 SOUTH **Well Number:** 218H

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? NO

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? NO

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? NO

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 SOUTH **Well Number:** 218H

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

11/18/2019

APD ID: 10400037573 **Submission Date:** 01/23/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 218H

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

[redacted]

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: