Form 3160-3
(June 2015)

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

OCD – HOBBS
04/10/2020
RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0061374A

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
433H 316706

2. Name of Operator
KAISER FRANCIS OIL COMPANY 12361

9. API Well No.
30-025-47090

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

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

10. Field and Pool, or Exploratory
BELL LAKE / WOLFCAMP 98265

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NESW / 1742 FSL / 1945 FWL / LAT 32.2440983 / LONG -103.4942492
At proposed prod. zone NENW / 330 FNL / 2110 FWL / LAT 32.2674388 / LONG -103.4937721

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)
695 feet

16. No of acres in lease
440

17. Spacing Unit dedicated to this well
479.92

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

19. Proposed Depth
12501 feet / 20608 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3596 feet

22. Approximate date work will start*
07/01/2019

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)	Danielle Parker / Ph: (575)318-9704	03/25/2019

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	03/30/2020

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 04/10/2020

KZ
04/17/2020

SL

APPROVED WITH CONDITIONS

Approval Date: 03/30/2020

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Kaiser Francis Oil Company**
LEASE NO.:	**NMLC0061374A**
WELL NAME & NO.:	**Bell Lake Unit South 433H**
SURFACE HOLE FOOTAGE:	**1742' FSL & 1945' FWL**
BOTTOM HOLE FOOTAGE	**330' FNL & 2110' FWL**
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** producing formations. 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 **10-3/4"** 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 **7-5/8"** 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 **10,000 (10M)** psi. **Variance approved to use a 5M annular. This annular must be tested to 70% of its rated pressure (3500 psi).**

D. SPECIAL REQUIREMENTS

2. 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 03/17/2020

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.

5. 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.

APD ID: 10400040026 **Submission Date:** 03/25/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

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

Highlighted data reflects the most recent changes

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Section 1 - General

APD ID: 10400040026 **Tie to previous NOS?** **Submission Date:** 03/25/2019

BLM Office: CARLSBAD **User:** Danielle Parker **Title:** Regulatory Analyst

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

Lease number: NMLC0061374A **Lease Acres:** 440

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:** 433H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BELL LAKE **Pool Name:** WOLFCAMP

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 SOUTH **Well Number:** 433H

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:** 13

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:** 30 FT **Distance to lease line:** 695 FT

Reservoir well spacing assigned acres Measurement: 479.92 Acres

Well plat: BLUS_433H__C102_20190325102721.pdf

BLUS_433H__Pymt_Rec_20191014155823.pdf

Well work start Date: 07/01/2019 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 17110850 **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 from this lease?
SHL Leg #1	1742	FSL	1945	FWL	24S	34E	5	Aliquot NESW	32.2440983	-103.4942492	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0061374A	3596	0	0	
KOP Leg #1	1742	FSL	1945	FWL	24S	34E	5	Aliquot NESW	32.2440983	-103.4942492	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0061374A	-8272	11886	11868	

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

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	0	FNL	2110	FWL	24S	34E	32	Aliquot SESW	32.2537938	-103.4902059	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8905	15650	12501	
PPP Leg #1-2	1320	FNL	2110	FWL	24S	34E	5	Aliquot NENW	32.2502428	-103.4933545	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 000233 5B	-8905	14330	12501	
PPP Leg #1-3	2600	FNL	2250	FWL	24S	34E	5	Aliquot SENW	32.2464509	-103.4932702	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 061374 A	-8905	13050	12501	
EXIT Leg #1	330	FNL	2110	FWL	23S	34E	32	Aliquot NENW	32.2674388	-103.4937721	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8905	20608	12501	
BHL Leg #1	330	FNL	2110	FWL	23S	34E	32	Aliquot NENW	32.2674388	-103.4937721	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8905	20608	12501	

Receipt

Tracking Information

Pay.gov Tracking ID: 26GALQNJ

Agency Tracking ID: 75710041439

Form Name: Bureau of Land Management (BLM) Application for Permit to Drill (APD) Fee

Application Name: BLM Oil and Gas Online Payment

Payment Information

Payment Type: Debit or credit card

Payment Amount: $10,050.00

Transaction Date: 03/25/2019 02:40:29 PM EDT

Payment Date: 03/25/2019

Company: Kaiser-Francis Oil Company

APD IDs: 10400040026

Lease Numbers: NMLC0061374A

Well Numbers: 433H

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.

Account Information

Cardholder Name: GEORGE B KAISER

Card Type: Visa

Card Number: **********0061

APD ID: 10400040026 **Submission Date:** 03/25/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

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

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
418597	---	3596	0	0		NONE	N
418598	RUSTLER	2196	1400	1400		NONE	N
418599	SALADO	1796	1800	1800		NONE	N
418600	TOP SALT	1471	2125	2125		NONE	N
418601	BASE OF SALT	-1504	5100	5100		NONE	N
418602	LAMAR	-1679	5275	5275		NATURAL GAS, OIL	N
418603	BELL CANYON	-1754	5350	5350		NATURAL GAS, OIL	N
418604	CHERRY CANYON	-2629	6225	6225		NATURAL GAS, OIL	N
418605	BRUSHY CANYON	-4104	7700	7700		NATURAL GAS, OIL	N
418606	BONE SPRING	-5204	8800	8800		NATURAL GAS, OIL	N
418607	AVALON SAND	-5377	8973	8973		NATURAL GAS, OIL	N
418608	BONE SPRING 1ST	-6304	9900	9900		NATURAL GAS, OIL	N
418609	BONE SPRING 2ND	-6889	10485	10485		NATURAL GAS, OIL	N
418610	BONE SPRING LIME	-7364	10960	10960		NATURAL GAS, OIL	N
418611	BONE SPRING 3RD	-7674	11270	11270		NATURAL GAS, OIL	N
418612	WOLFCAMP	-8138	11735	11735		NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

Pressure Rating (PSI): 10M **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:

BLUS_433H__Choke_Manifold_20200226110536.pdf

BOP Diagram Attachment:

BLUS_433H__BOP_20190315120940.pdf

Cactus_Flex_Hose_16C_Certification_20191018075823.pdf

Wellhead_Diagram_20191018084339.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	1350	0	1350			1350	J-55	40.5	ST&C	2.5	5	DRY	7.7	DRY	11.5
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11376	0	11376			11376	HCP-110	29.7	LT&C	1.3	1.8	DRY	2.3	DRY	2.8
3	PRODUCTION	6.75	5.5	NEW	API	N	0	20608	0	12501			20608	P-110	20	OTHER - EAGLE SF	1.7	1.8	DRY	2.5	DRY	2.9

Casing Attachments

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_433H_Casing_Assumptions_20191018081838.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_433H_Casing_Assumptions_20191018081952.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_433H__Casing_Specs_20190318062300.pdf

BLUS_433H_Casing_Assumptions_20191018082104.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	590	1.34	14.8	506	50	Premium C	Accelerator
INTERMEDIATE	Lead		0	11376	1037	2.45	12	2031	25	Premium C	Extender
INTERMEDIATE	Tail		0	11376	391	1.34	14.8	418	25	Premium C	Accelerator
PRODUCTION	Lead		11000	20608	500	1.91	13.2	723	15	Premium C	Retarder

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
11376	12501	OTHER : Oil Based Mud	10	12							
1350	11376	OTHER : Diesel-Brine Emulsion	8.7	9							
0	1350	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 433H

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: 7801 **Anticipated Surface Pressure:** 5050.78

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:

BLUS_433H__Contingency_Plan_Pad_13_20190318062654.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUS_433H__Directional_Plan_20190318062901.pdf

BLUS_433H__Directional_Plan_Diagram_20190318062900.pdf

Other proposed operations facets description:

Gas Capture Plan attached

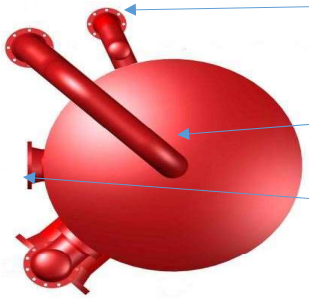
Other proposed operations facets attachment:

BLUS_433H__Gas_Capture_Plan_20190318105613.pdf

Other Variance attachment:

Cactus_Flex_Hose_16C_Certification_20191018075912.pdf

10M Choke Manifold
Cactus Rig 171
Kaiser Francis Oil Company



Line in from Choke Manifold

Vent Line to flair

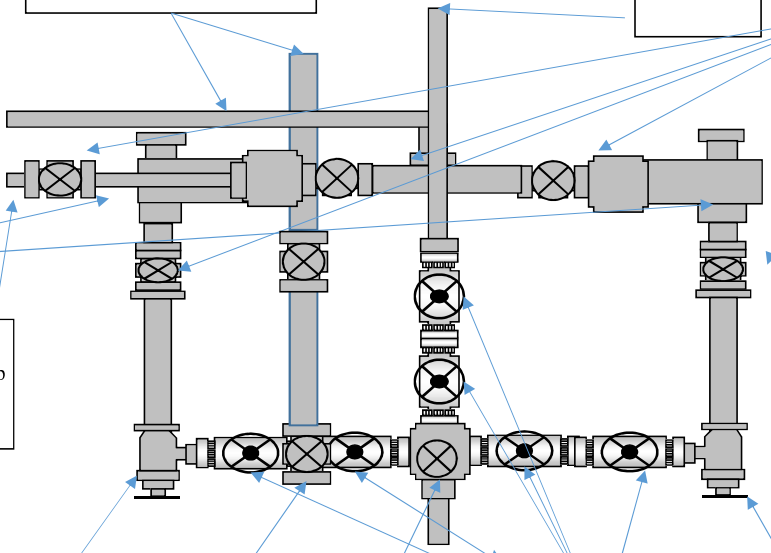
Line out to Mud Tanks

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

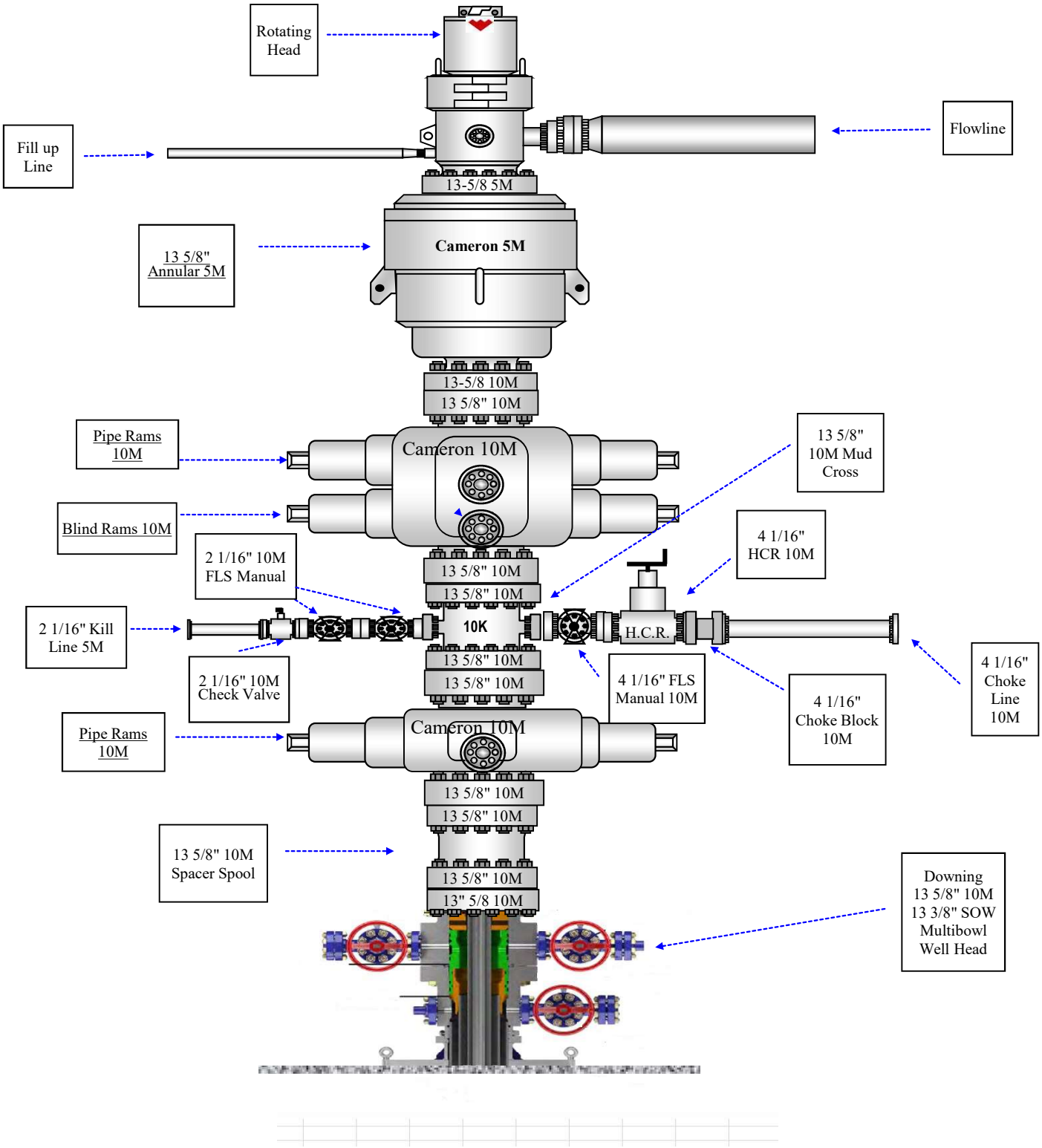
10M Line from BOP's

4 1/16" 10M Manual valves

3 1/16" 10M adjustable choke Hydraulic

Cactus Rig 171
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 COMPANY

Kaiser Francis

Bell Lake Unit South 433H
Bell Lake Unit South 433H
Bell Lake Unit South 433H
Bell Lake Unit South 433H

Plan: 190303 Bell Lake Unit South 433H

Morcor Standard Plan

03 March, 2019

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**Database:**	EDM 5000.1 Single User Db

Project Bell Lake Unit South 433H

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 433H

Site Position:		**Northing:**	453,549.93 usft	**Latitude:**	32° 14' 38.754 N
From:	Lat/Long	**Easting:**	800,756.13 usft	**Longitude:**	103° 29' 39.297 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	17-1/2 "	**Grid Convergence:**	0.45 °

Well Bell Lake Unit South 433H

Well Position	**+N/-S**	0.0 usft	**Northing:**	453,549.93 usft	**Latitude:**	32° 14' 38.754 N
	+E/-W	0.0 usft	**Easting:**	800,756.13 usft	**Longitude:**	103° 29' 39.297 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,595.8 usft

Wellbore Bell Lake Unit South 433H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/3/2019	6.59	60.02	47,863

Design 190303 Bell Lake Unit South 433H

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	0.55

Survey Tool Program **Date** 3/3/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,608.0	190303 Bell Lake Unit South 433H (Bell La	MWD	MWD - Standard

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Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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	-3,617.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
50.0	0.00	0.00	50.0	-3,567.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
100.0	0.00	61.50	100.0	-3,517.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
120.0	0.00	61.50	120.0	-3,497.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
20" Conductor										
150.0	0.00	61.50	150.0	-3,467.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
200.0	0.00	61.50	200.0	-3,417.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
250.0	0.00	61.50	250.0	-3,367.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
300.0	0.00	61.50	300.0	-3,317.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
350.0	0.00	61.50	350.0	-3,267.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
400.0	0.00	61.50	400.0	-3,217.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
450.0	0.00	61.50	450.0	-3,167.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
500.0	0.00	61.50	500.0	-3,117.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
550.0	0.00	61.50	550.0	-3,067.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
600.0	0.00	61.50	600.0	-3,017.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
650.0	0.00	61.50	650.0	-2,967.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
700.0	0.00	61.50	700.0	-2,917.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
750.0	0.00	61.50	750.0	-2,867.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
800.0	0.00	61.50	800.0	-2,817.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
850.0	0.00	61.50	850.0	-2,767.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
900.0	0.00	61.50	900.0	-2,717.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
950.0	0.00	61.50	950.0	-2,667.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,000.0	0.00	61.50	1,000.0	-2,617.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,050.0	0.00	61.50	1,050.0	-2,567.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,100.0	0.00	61.50	1,100.0	-2,517.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,150.0	0.00	61.50	1,150.0	-2,467.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,200.0	0.00	61.50	1,200.0	-2,417.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00

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Design:	190303 Bell Lake Unit South 433H	**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)
1,250.0	0.00	61.50	1,250.0	-2,367.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,300.0	0.00	61.50	1,300.0	-2,317.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,350.0	0.00	61.50	1,350.0	-2,267.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,400.0	0.00	61.50	1,400.0	-2,217.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,422.0	0.00	61.50	1,422.0	-2,195.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Rustler										
1,447.0	0.00	61.50	1,447.0	-2,170.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
13 3/8" Surface Casing										
1,450.0	0.00	61.50	1,450.0	-2,167.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,500.0	0.00	61.50	1,500.0	-2,117.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,550.0	0.00	61.50	1,550.0	-2,067.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,600.0	0.00	61.50	1,600.0	-2,017.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,650.0	0.00	61.50	1,650.0	-1,967.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,700.0	0.00	61.50	1,700.0	-1,917.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,750.0	0.00	61.50	1,750.0	-1,867.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,800.0	0.00	61.50	1,800.0	-1,817.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,847.0	0.00	61.50	1,847.0	-1,770.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Salado										
1,850.0	0.00	61.50	1,850.0	-1,767.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,900.0	0.00	61.50	1,900.0	-1,717.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
1,950.0	0.00	61.50	1,950.0	-1,667.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,000.0	0.00	61.50	2,000.0	-1,617.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,022.0	0.00	61.50	2,022.0	-1,595.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Top of Salt										
2,050.0	0.00	61.50	2,050.0	-1,567.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,100.0	0.00	61.50	2,100.0	-1,517.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,150.0	0.00	61.50	2,150.0	-1,467.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,200.0	0.00	61.50	2,200.0	-1,417.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00

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Design:	190303 Bell Lake Unit South 433H	**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)
2,250.0	0.00	61.50	2,250.0	-1,367.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,300.0	0.00	61.50	2,300.0	-1,317.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,350.0	0.00	61.50	2,350.0	-1,267.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,400.0	0.00	61.50	2,400.0	-1,217.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,450.0	0.00	61.50	2,450.0	-1,167.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,500.0	0.00	61.50	2,500.0	-1,117.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,550.0	0.00	61.50	2,550.0	-1,067.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,600.0	0.00	61.50	2,600.0	-1,017.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,650.0	0.00	61.50	2,650.0	-967.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,700.0	0.00	61.50	2,700.0	-917.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,750.0	0.00	61.50	2,750.0	-867.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,800.0	0.00	61.50	2,800.0	-817.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,850.0	0.00	61.50	2,850.0	-767.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,900.0	0.00	61.50	2,900.0	-717.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
2,950.0	0.00	61.50	2,950.0	-667.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,000.0	0.00	61.50	3,000.0	-617.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,050.0	0.00	61.50	3,050.0	-567.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,100.0	0.00	61.50	3,100.0	-517.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,150.0	0.00	61.50	3,150.0	-467.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,200.0	0.00	61.50	3,200.0	-417.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,250.0	0.00	61.50	3,250.0	-367.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,300.0	0.00	61.50	3,300.0	-317.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,350.0	0.00	61.50	3,350.0	-267.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,400.0	0.00	61.50	3,400.0	-217.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,450.0	0.00	61.50	3,450.0	-167.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,500.0	0.00	61.50	3,500.0	-117.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,550.0	0.00	61.50	3,550.0	-67.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00

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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)
3,600.0	0.00	61.50	3,600.0	-17.8	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,650.0	0.00	61.50	3,650.0	32.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,700.0	0.00	61.50	3,700.0	82.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,750.0	0.00	61.50	3,750.0	132.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,800.0	0.00	61.50	3,800.0	182.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,850.0	0.00	61.50	3,850.0	232.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,900.0	0.00	61.50	3,900.0	282.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
3,950.0	0.00	61.50	3,950.0	332.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,000.0	0.00	61.50	4,000.0	382.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,050.0	0.00	61.50	4,050.0	432.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,100.0	0.00	61.50	4,100.0	482.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,150.0	0.00	61.50	4,150.0	532.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,200.0	0.00	61.50	4,200.0	582.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,250.0	0.00	61.50	4,250.0	632.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,300.0	0.00	61.50	4,300.0	682.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,350.0	0.00	61.50	4,350.0	732.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,400.0	0.00	61.50	4,400.0	782.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,450.0	0.00	61.50	4,450.0	832.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,500.0	0.00	61.50	4,500.0	882.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,550.0	0.00	61.50	4,550.0	932.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,600.0	0.00	61.50	4,600.0	982.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,650.0	0.00	61.50	4,650.0	1,032.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,700.0	0.00	61.50	4,700.0	1,082.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,750.0	0.00	61.50	4,750.0	1,132.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,800.0	0.00	61.50	4,800.0	1,182.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,850.0	0.00	61.50	4,850.0	1,232.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
4,900.0	0.00	61.50	4,900.0	1,282.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
4,950.0	0.00	61.50	4,950.0	1,332.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,000.0	0.00	61.50	5,000.0	1,382.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,022.0	0.00	61.50	5,022.0	1,404.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Base of Salt										
5,050.0	0.00	61.50	5,050.0	1,432.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,100.0	0.00	61.50	5,100.0	1,482.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,150.0	0.00	61.50	5,150.0	1,532.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,200.0	0.00	61.50	5,200.0	1,582.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,222.0	0.00	61.50	5,222.0	1,604.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Lamar Lime										
5,247.0	0.00	61.50	5,247.0	1,629.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
9 5/8" Intermediate Casing										
5,250.0	0.00	61.50	5,250.0	1,632.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,300.0	0.00	61.50	5,300.0	1,682.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,350.0	0.00	61.50	5,350.0	1,732.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,400.0	0.00	61.50	5,400.0	1,782.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,422.0	0.00	61.50	5,422.0	1,804.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Bell Canyon										
5,450.0	0.00	61.50	5,450.0	1,832.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,500.0	0.00	61.50	5,500.0	1,882.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,550.0	0.00	61.50	5,550.0	1,932.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,600.0	0.00	61.50	5,600.0	1,982.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,650.0	0.00	61.50	5,650.0	2,032.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,700.0	0.00	61.50	5,700.0	2,082.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,750.0	0.00	61.50	5,750.0	2,132.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,800.0	0.00	61.50	5,800.0	2,182.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,850.0	0.00	61.50	5,850.0	2,232.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
5,900.0	0.00	61.50	5,900.0	2,282.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
5,950.0	0.00	61.50	5,950.0	2,332.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,000.0	0.00	61.50	6,000.0	2,382.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,050.0	0.00	61.50	6,050.0	2,432.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,100.0	0.00	61.50	6,100.0	2,482.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,150.0	0.00	61.50	6,150.0	2,532.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,200.0	0.00	61.50	6,200.0	2,582.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,250.0	0.00	61.50	6,250.0	2,632.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,272.0	0.00	61.50	6,272.0	2,654.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Cherry Canyon										
6,300.0	0.00	61.50	6,300.0	2,682.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,350.0	0.00	61.50	6,350.0	2,732.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,400.0	0.00	61.50	6,400.0	2,782.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,450.0	0.00	61.50	6,450.0	2,832.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,500.0	0.00	61.50	6,500.0	2,882.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,550.0	0.00	61.50	6,550.0	2,932.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,600.0	0.00	61.50	6,600.0	2,982.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,650.0	0.00	61.50	6,650.0	3,032.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,700.0	0.00	61.50	6,700.0	3,082.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,750.0	0.00	61.50	6,750.0	3,132.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,800.0	0.00	61.50	6,800.0	3,182.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,850.0	0.00	61.50	6,850.0	3,232.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,900.0	0.00	61.50	6,900.0	3,282.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
6,950.0	0.00	61.50	6,950.0	3,332.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,000.0	0.00	61.50	7,000.0	3,382.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,050.0	0.00	61.50	7,050.0	3,432.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,100.0	0.00	61.50	7,100.0	3,482.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
7,150.0	0.00	61.50	7,150.0	3,532.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,200.0	0.00	61.50	7,200.0	3,582.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,250.0	0.00	61.50	7,250.0	3,632.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,300.0	0.00	61.50	7,300.0	3,682.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,350.0	0.00	61.50	7,350.0	3,732.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,400.0	0.00	61.50	7,400.0	3,782.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,450.0	0.00	61.50	7,450.0	3,832.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,500.0	0.00	61.50	7,500.0	3,882.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,550.0	0.00	61.50	7,550.0	3,932.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,600.0	0.00	61.50	7,600.0	3,982.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,650.0	0.00	61.50	7,650.0	4,032.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,700.0	0.00	61.50	7,700.0	4,082.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,747.0	0.00	61.50	7,747.0	4,129.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Brushy Canyon										
7,750.0	0.00	61.50	7,750.0	4,132.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,800.0	0.00	61.50	7,800.0	4,182.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,850.0	0.00	61.50	7,850.0	4,232.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,900.0	0.00	61.50	7,900.0	4,282.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
7,950.0	0.00	61.50	7,950.0	4,332.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,000.0	0.00	61.50	8,000.0	4,382.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,050.0	0.00	61.50	8,050.0	4,432.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,100.0	0.00	61.50	8,100.0	4,482.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,150.0	0.00	61.50	8,150.0	4,532.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,200.0	0.00	61.50	8,200.0	4,582.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,250.0	0.00	61.50	8,250.0	4,632.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,300.0	0.00	61.50	8,300.0	4,682.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,350.0	0.00	61.50	8,350.0	4,732.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
8,400.0	0.00	61.50	8,400.0	4,782.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,450.0	0.00	61.50	8,450.0	4,832.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
8,456.0	0.00	61.50	8,456.0	4,838.2	0.0	0.0	800,756.13	453,549.93	0.00	0.00
Start Build 3.00										
8,500.0	1.32	61.50	8,500.0	4,882.2	0.2	0.4	800,756.58	453,550.17	0.25	3.00
8,550.0	2.82	61.50	8,550.0	4,932.2	1.1	2.0	800,758.17	453,551.03	1.12	3.00
8,600.0	4.32	61.50	8,599.9	4,982.1	2.6	4.8	800,760.90	453,552.51	2.64	3.00
8,650.0	5.82	61.50	8,649.7	5,031.9	4.7	8.7	800,764.79	453,554.62	4.78	3.00
8,656.0	6.00	61.50	8,655.6	5,037.8	5.0	9.2	800,765.33	453,554.92	5.08	3.00
Start 3030.0 hold at 8656.0 MD										
8,700.0	6.00	61.50	8,699.4	5,081.6	7.2	13.2	800,769.37	453,557.11	7.31	0.00
8,750.0	6.00	61.50	8,749.1	5,131.3	9.7	17.8	800,773.96	453,559.61	9.85	0.00
8,800.0	6.00	61.50	8,798.8	5,181.0	12.2	22.4	800,778.56	453,562.10	12.39	0.00
8,850.0	6.00	61.50	8,848.6	5,230.8	14.7	27.0	800,783.15	453,564.59	14.93	0.00
8,888.6	6.00	61.50	8,887.0	5,269.2	16.6	30.6	800,786.70	453,566.52	16.89	0.00
Bone Spring										
8,900.0	6.00	61.50	8,898.3	5,280.5	17.2	31.6	800,787.74	453,567.09	17.47	0.00
8,950.0	6.00	61.50	8,948.0	5,330.2	19.7	36.2	800,792.34	453,569.58	20.01	0.00
9,000.0	6.00	61.50	8,997.8	5,380.0	22.1	40.8	800,796.93	453,572.08	22.54	0.00
9,050.0	6.00	61.50	9,047.5	5,429.7	24.6	45.4	800,801.52	453,574.57	25.08	0.00
9,081.7	6.00	61.50	9,079.0	5,461.2	26.2	48.3	800,804.43	453,576.15	26.69	0.00
Avalon										
9,100.0	6.00	61.50	9,097.2	5,479.4	27.1	50.0	800,806.11	453,577.06	27.62	0.00
9,150.0	6.00	61.50	9,146.9	5,529.1	29.6	54.6	800,810.71	453,579.56	30.16	0.00
9,200.0	6.00	61.50	9,196.7	5,578.9	32.1	59.2	800,815.30	453,582.05	32.70	0.00
9,250.0	6.00	61.50	9,246.4	5,628.6	34.6	63.8	800,819.89	453,584.54	35.23	0.00
9,300.0	6.00	61.50	9,296.1	5,678.3	37.1	68.4	800,824.49	453,587.04	37.77	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
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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)
9,350.0	6.00	61.50	9,345.8	5,728.0	39.6	72.9	800,829.08	453,589.53	40.31	0.00
9,400.0	6.00	61.50	9,395.6	5,777.8	42.1	77.5	800,833.67	453,592.03	42.85	0.00
9,450.0	6.00	61.50	9,445.3	5,827.5	44.6	82.1	800,838.27	453,594.52	45.39	0.00
9,500.0	6.00	61.50	9,495.0	5,877.2	47.1	86.7	800,842.86	453,597.01	47.93	0.00
9,550.0	6.00	61.50	9,544.7	5,926.9	49.6	91.3	800,847.45	453,599.51	50.46	0.00
9,600.0	6.00	61.50	9,594.5	5,976.7	52.1	95.9	800,852.05	453,602.00	53.00	0.00
9,650.0	6.00	61.50	9,644.2	6,026.4	54.6	100.5	800,856.64	453,604.49	55.54	0.00
9,700.0	6.00	61.50	9,693.9	6,076.1	57.1	105.1	800,861.23	453,606.99	58.08	0.00
9,750.0	6.00	61.50	9,743.6	6,125.8	59.6	109.7	800,865.82	453,609.48	60.62	0.00
9,800.0	6.00	61.50	9,793.4	6,175.6	62.1	114.3	800,870.42	453,611.98	63.15	0.00
9,850.0	6.00	61.50	9,843.1	6,225.3	64.5	118.9	800,875.01	453,614.47	65.69	0.00
9,900.0	6.00	61.50	9,892.8	6,275.0	67.0	123.5	800,879.60	453,616.96	68.23	0.00
9,950.0	6.00	61.50	9,942.5	6,324.7	69.5	128.1	800,884.20	453,619.46	70.77	0.00
10,000.0	6.00	61.50	9,992.3	6,374.5	72.0	132.7	800,888.79	453,621.95	73.31	0.00
10,050.0	6.00	61.50	10,042.0	6,424.2	74.5	137.2	800,893.38	453,624.45	75.85	0.00
10,100.0	6.00	61.50	10,091.7	6,473.9	77.0	141.8	800,897.98	453,626.94	78.38	0.00
10,130.4	6.00	61.50	10,122.0	6,504.2	78.5	144.6	800,900.77	453,628.46	79.93	0.00
1st Bone Spring Sand										
10,150.0	6.00	61.50	10,141.5	6,523.7	79.5	146.4	800,902.57	453,629.43	80.92	0.00
10,200.0	6.00	61.50	10,191.2	6,573.4	82.0	151.0	800,907.16	453,631.93	83.46	0.00
10,250.0	6.00	61.50	10,240.9	6,623.1	84.5	155.6	800,911.76	453,634.42	86.00	0.00
10,300.0	6.00	61.50	10,290.6	6,672.8	87.0	160.2	800,916.35	453,636.91	88.54	0.00
10,350.0	6.00	61.50	10,340.4	6,722.6	89.5	164.8	800,920.94	453,639.41	91.07	0.00
10,400.0	6.00	61.50	10,390.1	6,772.3	92.0	169.4	800,925.53	453,641.90	93.61	0.00
10,450.0	6.00	61.50	10,439.8	6,822.0	94.5	174.0	800,930.13	453,644.40	96.15	0.00
10,500.0	6.00	61.50	10,489.5	6,871.7	97.0	178.6	800,934.72	453,646.89	98.69	0.00
10,550.0	6.00	61.50	10,539.3	6,921.5	99.5	183.2	800,939.31	453,649.38	101.23	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
10,600.0	6.00	61.50	10,589.0	6,971.2	102.0	187.8	800,943.91	453,651.88	103.77	0.00
10,650.0	6.00	61.50	10,638.7	7,020.9	104.4	192.4	800,948.50	453,654.37	106.30	0.00
10,668.4	6.00	61.50	10,657.0	7,039.2	105.4	194.1	800,950.19	453,655.29	107.24	0.00
2nd Bone Spring Sand										
10,700.0	6.00	61.50	10,688.4	7,070.6	106.9	197.0	800,953.09	453,656.87	108.84	0.00
10,750.0	6.00	61.50	10,738.2	7,120.4	109.4	201.6	800,957.69	453,659.36	111.38	0.00
10,800.0	6.00	61.50	10,787.9	7,170.1	111.9	206.1	800,962.28	453,661.85	113.92	0.00
10,850.0	6.00	61.50	10,837.6	7,219.8	114.4	210.7	800,966.87	453,664.35	116.46	0.00
10,900.0	6.00	61.50	10,887.3	7,269.5	116.9	215.3	800,971.47	453,666.84	118.99	0.00
10,950.0	6.00	61.50	10,937.1	7,319.3	119.4	219.9	800,976.06	453,669.33	121.53	0.00
11,000.0	6.00	61.50	10,986.8	7,369.0	121.9	224.5	800,980.65	453,671.83	124.07	0.00
11,050.0	6.00	61.50	11,036.5	7,418.7	124.4	229.1	800,985.24	453,674.32	126.61	0.00
11,100.0	6.00	61.50	11,086.2	7,468.4	126.9	233.7	800,989.84	453,676.82	129.15	0.00
11,150.0	6.00	61.50	11,136.0	7,518.2	129.4	238.3	800,994.43	453,679.31	131.69	0.00
11,186.2	6.00	61.50	11,172.0	7,554.2	131.2	241.6	800,997.76	453,681.12	133.52	0.00
3rd Bone Spring Lime										
11,200.0	6.00	61.50	11,185.7	7,567.9	131.9	242.9	800,999.02	453,681.80	134.22	0.00
11,250.0	6.00	61.50	11,235.4	7,617.6	134.4	247.5	801,003.62	453,684.30	136.76	0.00
11,300.0	6.00	61.50	11,285.2	7,667.4	136.9	252.1	801,008.21	453,686.79	139.30	0.00
11,350.0	6.00	61.50	11,334.9	7,717.1	139.4	256.7	801,012.80	453,689.29	141.84	0.00
11,400.0	6.00	61.50	11,384.6	7,766.8	141.9	261.3	801,017.40	453,691.78	144.38	0.00
11,450.0	6.00	61.50	11,434.3	7,816.5	144.3	265.9	801,021.99	453,694.27	146.91	0.00
11,500.0	6.00	61.50	11,484.1	7,866.3	146.8	270.4	801,026.58	453,696.77	149.45	0.00
11,550.0	6.00	61.50	11,533.8	7,916.0	149.3	275.0	801,031.18	453,699.26	151.99	0.00
11,600.0	6.00	61.50	11,583.5	7,965.7	151.8	279.6	801,035.77	453,701.75	154.53	0.00
11,650.0	6.00	61.50	11,633.2	8,015.4	154.3	284.2	801,040.36	453,704.25	157.07	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
11,668.9	6.00	61.50	11,652.0	8,034.2	155.3	286.0	801,042.09	453,705.19	158.02	0.00
3rd Bone Spring Sand										
11,686.0	6.00	61.50	11,669.0	8,051.2	156.1	287.5	801,043.67	453,706.04	158.89	0.00
Start Drop -3.00										
11,700.0	5.58	61.50	11,683.0	8,065.2	156.8	288.8	801,044.91	453,706.72	159.58	3.00
11,750.0	4.08	61.50	11,732.8	8,115.0	158.8	292.5	801,048.61	453,708.73	161.62	3.00
11,800.0	2.58	61.50	11,782.7	8,164.9	160.2	295.0	801,051.16	453,710.11	163.04	3.00
11,850.0	1.08	61.50	11,832.7	8,214.9	160.9	296.4	801,052.56	453,710.87	163.81	3.00
11,886.0	0.00	0.00	11,868.7	8,250.9	161.1	296.7	801,052.86	453,711.04	163.98	3.00
Start 60.0 hold at 11886.0 MD										
11,900.0	0.00	0.00	11,882.7	8,264.9	161.1	296.7	801,052.86	453,711.04	163.98	0.00
11,946.0	0.00	0.00	11,928.7	8,310.9	161.1	296.7	801,052.86	453,711.04	163.98	0.00
Start Build 10.00										
11,950.0	0.40	0.00	11,932.7	8,314.9	161.1	296.7	801,052.86	453,711.05	163.99	10.00
11,974.3	2.83	0.00	11,957.0	8,339.2	161.8	296.7	801,052.86	453,711.74	164.68	10.00
Wolfcamp										
12,000.0	5.40	0.00	11,982.6	8,364.8	163.7	296.7	801,052.86	453,713.58	166.52	10.00
12,050.0	10.40	0.00	12,032.1	8,414.3	170.5	296.7	801,052.86	453,720.45	173.39	10.00
12,100.0	15.40	0.00	12,080.8	8,463.0	181.7	296.7	801,052.86	453,731.61	184.55	10.00
12,150.0	20.40	0.00	12,128.4	8,510.6	197.0	296.7	801,052.86	453,746.97	199.91	10.00
12,200.0	25.40	0.00	12,174.4	8,556.6	216.5	296.7	801,052.86	453,766.42	219.36	10.00
12,250.0	30.40	0.00	12,218.6	8,600.8	239.9	296.7	801,052.86	453,789.81	242.75	10.00
12,300.0	35.40	0.00	12,260.6	8,642.8	267.0	296.7	801,052.86	453,816.96	269.89	10.00
12,350.0	40.40	0.00	12,300.0	8,682.2	297.7	296.7	801,052.86	453,847.66	300.60	10.00
12,400.0	45.40	0.00	12,336.6	8,718.8	331.8	296.7	801,052.86	453,881.69	334.62	10.00
12,450.0	50.40	0.00	12,370.1	8,752.3	368.9	296.7	801,052.86	453,918.78	371.71	10.00
12,500.0	55.40	0.00	12,400.3	8,782.5	408.7	296.7	801,052.86	453,958.64	411.57	10.00
12,550.0	60.40	0.00	12,426.9	8,809.1	451.1	296.7	801,052.86	454,000.99	453.91	10.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
12,600.0	65.40	0.00	12,449.6	8,831.8	495.6	296.7	801,052.86	454,045.48	498.41	10.00
12,650.0	70.40	0.00	12,468.4	8,850.6	541.9	296.7	801,052.86	454,091.79	544.72	10.00
12,700.0	75.40	0.00	12,483.1	8,865.3	589.6	296.7	801,052.86	454,139.57	592.49	10.00
12,750.0	80.40	0.00	12,493.6	8,875.8	638.5	296.7	801,052.86	454,188.44	641.36	10.00
12,800.0	85.40	0.00	12,499.8	8,882.0	688.1	296.7	801,052.86	454,238.04	690.96	10.00
12,846.0	90.00	0.00	12,501.6	8,883.8	734.1	296.7	801,052.86	454,283.99	736.91	10.00
Start 124.0 hold at 12846.0 MD										
12,850.0	90.00	0.00	12,501.6	8,883.8	738.1	296.7	801,052.86	454,287.99	740.91	0.00
12,900.0	90.00	0.00	12,501.6	8,883.8	788.1	296.7	801,052.86	454,337.99	790.90	0.00
12,950.0	90.00	0.00	12,501.6	8,883.8	838.1	296.7	801,052.86	454,387.99	840.90	0.00
12,970.0	90.00	0.00	12,501.6	8,883.8	858.1	296.7	801,052.86	454,407.99	860.90	0.00
Start Turn -1.62										
13,000.0	90.00	359.51	12,501.6	8,883.8	888.1	296.6	801,052.74	454,437.99	890.90	1.62
13,050.0	90.00	358.70	12,501.6	8,883.8	938.1	295.8	801,051.96	454,487.99	940.88	1.62
13,070.0	90.00	358.38	12,501.6	8,883.8	958.1	295.3	801,051.45	454,507.98	960.87	1.62
Start 7538.0 hold at 13070.0 MD										
13,100.0	90.00	358.38	12,501.6	8,883.8	988.0	294.5	801,050.60	454,537.97	990.85	0.00
13,150.0	90.00	358.38	12,501.6	8,883.8	1,038.0	293.1	801,049.19	454,587.95	1,040.81	0.00
13,200.0	90.00	358.38	12,501.6	8,883.8	1,088.0	291.6	801,047.77	454,637.93	1,090.78	0.00
13,250.0	90.00	358.38	12,501.6	8,883.8	1,138.0	290.2	801,046.36	454,687.91	1,140.74	0.00
13,300.0	90.00	358.38	12,501.6	8,883.8	1,188.0	288.8	801,044.95	454,737.89	1,190.70	0.00
13,350.0	90.00	358.38	12,501.6	8,883.8	1,237.9	287.4	801,043.53	454,787.87	1,240.67	0.00
13,400.0	90.00	358.38	12,501.6	8,883.8	1,287.9	286.0	801,042.12	454,837.85	1,290.63	0.00
13,450.0	90.00	358.38	12,501.6	8,883.8	1,337.9	284.6	801,040.71	454,887.83	1,340.60	0.00
13,500.0	90.00	358.38	12,501.6	8,883.8	1,387.9	283.2	801,039.29	454,937.81	1,390.56	0.00
13,550.0	90.00	358.38	12,501.6	8,883.8	1,437.9	281.7	801,037.88	454,987.79	1,440.52	0.00
13,600.0	90.00	358.38	12,501.6	8,883.8	1,487.8	280.3	801,036.47	455,037.77	1,490.49	0.00
13,650.0	90.00	358.38	12,501.6	8,883.8	1,537.8	278.9	801,035.05	455,087.75	1,540.45	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
13,700.0	90.00	358.38	12,501.6	8,883.8	1,587.8	277.5	801,033.64	455,137.73	1,590.42	0.00
13,750.0	90.00	358.38	12,501.6	8,883.8	1,637.8	276.1	801,032.23	455,187.71	1,640.38	0.00
13,800.0	90.00	358.38	12,501.6	8,883.8	1,687.8	274.7	801,030.81	455,237.69	1,690.34	0.00
13,850.0	90.00	358.38	12,501.6	8,883.8	1,737.7	273.3	801,029.40	455,287.67	1,740.31	0.00
13,900.0	90.00	358.38	12,501.6	8,883.8	1,787.7	271.9	801,027.98	455,337.65	1,790.27	0.00
13,950.0	90.00	358.38	12,501.6	8,883.8	1,837.7	270.4	801,026.57	455,387.63	1,840.24	0.00
14,000.0	90.00	358.38	12,501.6	8,883.8	1,887.7	269.0	801,025.16	455,437.61	1,890.20	0.00
14,050.0	90.00	358.38	12,501.6	8,883.8	1,937.7	267.6	801,023.74	455,487.59	1,940.16	0.00
14,100.0	90.00	358.38	12,501.6	8,883.8	1,987.6	266.2	801,022.33	455,537.57	1,990.13	0.00
14,150.0	90.00	358.38	12,501.6	8,883.8	2,037.6	264.8	801,020.92	455,587.55	2,040.09	0.00
14,200.0	90.00	358.38	12,501.6	8,883.8	2,087.6	263.4	801,019.50	455,637.53	2,090.06	0.00
14,250.0	90.00	358.38	12,501.6	8,883.8	2,137.6	262.0	801,018.09	455,687.51	2,140.02	0.00
14,300.0	90.00	358.38	12,501.6	8,883.8	2,187.6	260.5	801,016.68	455,737.49	2,189.98	0.00
14,350.0	90.00	358.38	12,501.6	8,883.8	2,237.5	259.1	801,015.26	455,787.47	2,239.95	0.00
14,400.0	90.00	358.38	12,501.6	8,883.8	2,287.5	257.7	801,013.85	455,837.45	2,289.91	0.00
14,450.0	90.00	358.38	12,501.6	8,883.8	2,337.5	256.3	801,012.44	455,887.43	2,339.88	0.00
14,500.0	90.00	358.38	12,501.6	8,883.8	2,387.5	254.9	801,011.02	455,937.41	2,389.84	0.00
14,550.0	90.00	358.38	12,501.6	8,883.8	2,437.5	253.5	801,009.61	455,987.39	2,439.80	0.00
14,600.0	90.00	358.38	12,501.6	8,883.8	2,487.4	252.1	801,008.20	456,037.37	2,489.77	0.00
14,650.0	90.00	358.38	12,501.6	8,883.8	2,537.4	250.6	801,006.78	456,087.35	2,539.73	0.00
14,700.0	90.00	358.38	12,501.6	8,883.8	2,587.4	249.2	801,005.37	456,137.33	2,589.69	0.00
14,750.0	90.00	358.38	12,501.6	8,883.8	2,637.4	247.8	801,003.95	456,187.31	2,639.66	0.00
14,800.0	90.00	358.38	12,501.6	8,883.8	2,687.4	246.4	801,002.54	456,237.29	2,689.62	0.00
14,850.0	90.00	358.38	12,501.6	8,883.8	2,737.3	245.0	801,001.13	456,287.27	2,739.59	0.00
14,900.0	90.00	358.38	12,501.6	8,883.8	2,787.3	243.6	800,999.71	456,337.25	2,789.55	0.00
14,950.0	90.00	358.38	12,501.6	8,883.8	2,837.3	242.2	800,998.30	456,387.23	2,839.51	0.00
15,000.0	90.00	358.38	12,501.6	8,883.8	2,887.3	240.8	800,996.89	456,437.21	2,889.48	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
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Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
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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)
15,050.0	90.00	358.38	12,501.6	8,883.8	2,937.3	239.3	800,995.47	456,487.19	2,939.44	0.00
15,100.0	90.00	358.38	12,501.6	8,883.8	2,987.2	237.9	800,994.06	456,537.17	2,989.41	0.00
15,150.0	90.00	358.38	12,501.6	8,883.8	3,037.2	236.5	800,992.65	456,587.15	3,039.37	0.00
15,200.0	90.00	358.38	12,501.6	8,883.8	3,087.2	235.1	800,991.23	456,637.13	3,089.33	0.00
15,250.0	90.00	358.38	12,501.6	8,883.8	3,137.2	233.7	800,989.82	456,687.11	3,139.30	0.00
15,300.0	90.00	358.38	12,501.6	8,883.8	3,187.2	232.3	800,988.41	456,737.09	3,189.26	0.00
15,350.0	90.00	358.38	12,501.6	8,883.8	3,237.1	230.9	800,986.99	456,787.07	3,239.23	0.00
15,400.0	90.00	358.38	12,501.6	8,883.8	3,287.1	229.4	800,985.58	456,837.05	3,289.19	0.00
15,450.0	90.00	358.38	12,501.6	8,883.8	3,337.1	228.0	800,984.17	456,887.03	3,339.15	0.00
15,500.0	90.00	358.38	12,501.6	8,883.8	3,387.1	226.6	800,982.75	456,937.01	3,389.12	0.00
15,550.0	90.00	358.38	12,501.6	8,883.8	3,437.1	225.2	800,981.34	456,986.99	3,439.08	0.00
15,600.0	90.00	358.38	12,501.6	8,883.8	3,487.0	223.8	800,979.92	457,036.97	3,489.05	0.00
15,650.0	90.00	358.38	12,501.6	8,883.8	3,537.0	222.4	800,978.51	457,086.95	3,539.01	0.00
15,700.0	90.00	358.38	12,501.6	8,883.8	3,587.0	221.0	800,977.10	457,136.93	3,588.97	0.00
15,750.0	90.00	358.38	12,501.6	8,883.8	3,637.0	219.6	800,975.68	457,186.91	3,638.94	0.00
15,800.0	90.00	358.38	12,501.6	8,883.8	3,687.0	218.1	800,974.27	457,236.89	3,688.90	0.00
15,850.0	90.00	358.38	12,501.6	8,883.8	3,736.9	216.7	800,972.86	457,286.87	3,738.87	0.00
15,900.0	90.00	358.38	12,501.6	8,883.8	3,786.9	215.3	800,971.44	457,336.85	3,788.83	0.00
15,950.0	90.00	358.38	12,501.6	8,883.8	3,836.9	213.9	800,970.03	457,386.83	3,838.79	0.00
16,000.0	90.00	358.38	12,501.6	8,883.8	3,886.9	212.5	800,968.62	457,436.81	3,888.76	0.00
16,050.0	90.00	358.38	12,501.6	8,883.8	3,936.9	211.1	800,967.20	457,486.79	3,938.72	0.00
16,100.0	90.00	358.38	12,501.6	8,883.8	3,986.8	209.7	800,965.79	457,536.77	3,988.69	0.00
16,150.0	90.00	358.38	12,501.6	8,883.8	4,036.8	208.2	800,964.38	457,586.75	4,038.65	0.00
16,200.0	90.00	358.38	12,501.6	8,883.8	4,086.8	206.8	800,962.96	457,636.73	4,088.61	0.00
16,250.0	90.00	358.38	12,501.6	8,883.8	4,136.8	205.4	800,961.55	457,686.71	4,138.58	0.00
16,300.0	90.00	358.38	12,501.6	8,883.8	4,186.8	204.0	800,960.14	457,736.69	4,188.54	0.00
16,350.0	90.00	358.38	12,501.6	8,883.8	4,236.7	202.6	800,958.72	457,786.67	4,238.51	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
16,400.0	90.00	358.38	12,501.6	8,883.8	4,286.7	201.2	800,957.31	457,836.65	4,288.47	0.00
16,450.0	90.00	358.38	12,501.6	8,883.8	4,336.7	199.8	800,955.89	457,886.63	4,338.43	0.00
16,500.0	90.00	358.38	12,501.6	8,883.8	4,386.7	198.3	800,954.48	457,936.61	4,388.40	0.00
16,550.0	90.00	358.38	12,501.6	8,883.8	4,436.7	196.9	800,953.07	457,986.59	4,438.36	0.00
16,600.0	90.00	358.38	12,501.6	8,883.8	4,486.6	195.5	800,951.65	458,036.57	4,488.33	0.00
16,650.0	90.00	358.38	12,501.6	8,883.8	4,536.6	194.1	800,950.24	458,086.55	4,538.29	0.00
16,700.0	90.00	358.38	12,501.6	8,883.8	4,586.6	192.7	800,948.83	458,136.53	4,588.25	0.00
16,750.0	90.00	358.38	12,501.6	8,883.8	4,636.6	191.3	800,947.41	458,186.51	4,638.22	0.00
16,800.0	90.00	358.38	12,501.6	8,883.8	4,686.6	189.9	800,946.00	458,236.49	4,688.18	0.00
16,850.0	90.00	358.38	12,501.6	8,883.8	4,736.5	188.5	800,944.59	458,286.47	4,738.15	0.00
16,900.0	90.00	358.38	12,501.6	8,883.8	4,786.5	187.0	800,943.17	458,336.45	4,788.11	0.00
16,950.0	90.00	358.38	12,501.6	8,883.8	4,836.5	185.6	800,941.76	458,386.43	4,838.07	0.00
17,000.0	90.00	358.38	12,501.6	8,883.8	4,886.5	184.2	800,940.35	458,436.41	4,888.04	0.00
17,050.0	90.00	358.38	12,501.6	8,883.8	4,936.5	182.8	800,938.93	458,486.39	4,938.00	0.00
17,100.0	90.00	358.38	12,501.6	8,883.8	4,986.4	181.4	800,937.52	458,536.37	4,987.97	0.00
17,150.0	90.00	358.38	12,501.6	8,883.8	5,036.4	180.0	800,936.11	458,586.35	5,037.93	0.00
17,200.0	90.00	358.38	12,501.6	8,883.8	5,086.4	178.6	800,934.69	458,636.33	5,087.89	0.00
17,250.0	90.00	358.38	12,501.6	8,883.8	5,136.4	177.1	800,933.28	458,686.31	5,137.86	0.00
17,300.0	90.00	358.38	12,501.6	8,883.8	5,186.4	175.7	800,931.86	458,736.29	5,187.82	0.00
17,350.0	90.00	358.38	12,501.6	8,883.8	5,236.3	174.3	800,930.45	458,786.27	5,237.79	0.00
17,400.0	90.00	358.38	12,501.6	8,883.8	5,286.3	172.9	800,929.04	458,836.25	5,287.75	0.00
17,450.0	90.00	358.38	12,501.6	8,883.8	5,336.3	171.5	800,927.62	458,886.23	5,337.71	0.00
17,500.0	90.00	358.38	12,501.6	8,883.8	5,386.3	170.1	800,926.21	458,936.21	5,387.68	0.00
17,550.0	90.00	358.38	12,501.6	8,883.8	5,436.3	168.7	800,924.80	458,986.19	5,437.64	0.00
17,600.0	90.00	358.38	12,501.6	8,883.8	5,486.2	167.2	800,923.38	459,036.17	5,487.61	0.00
17,650.0	90.00	358.38	12,501.6	8,883.8	5,536.2	165.8	800,921.97	459,086.15	5,537.57	0.00
17,700.0	90.00	358.38	12,501.6	8,883.8	5,586.2	164.4	800,920.56	459,136.13	5,587.53	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
17,750.0	90.00	358.38	12,501.6	8,883.8	5,636.2	163.0	800,919.14	459,186.11	5,637.50	0.00
17,800.0	90.00	358.38	12,501.6	8,883.8	5,686.2	161.6	800,917.73	459,236.09	5,687.46	0.00
17,850.0	90.00	358.38	12,501.6	8,883.8	5,736.1	160.2	800,916.32	459,286.07	5,737.43	0.00
17,900.0	90.00	358.38	12,501.6	8,883.8	5,786.1	158.8	800,914.90	459,336.05	5,787.39	0.00
17,950.0	90.00	358.38	12,501.6	8,883.8	5,836.1	157.4	800,913.49	459,386.03	5,837.35	0.00
18,000.0	90.00	358.38	12,501.6	8,883.8	5,886.1	155.9	800,912.08	459,436.01	5,887.32	0.00
18,050.0	90.00	358.38	12,501.6	8,883.8	5,936.1	154.5	800,910.66	459,485.99	5,937.28	0.00
18,100.0	90.00	358.38	12,501.6	8,883.8	5,986.0	153.1	800,909.25	459,535.97	5,987.25	0.00
18,150.0	90.00	358.38	12,501.6	8,883.8	6,036.0	151.7	800,907.83	459,585.95	6,037.21	0.00
18,200.0	90.00	358.38	12,501.6	8,883.8	6,086.0	150.3	800,906.42	459,635.93	6,087.17	0.00
18,250.0	90.00	358.38	12,501.6	8,883.8	6,136.0	148.9	800,905.01	459,685.91	6,137.14	0.00
18,300.0	90.00	358.38	12,501.6	8,883.8	6,186.0	147.5	800,903.59	459,735.89	6,187.10	0.00
18,350.0	90.00	358.38	12,501.6	8,883.8	6,235.9	146.0	800,902.18	459,785.87	6,237.07	0.00
18,400.0	90.00	358.38	12,501.6	8,883.8	6,285.9	144.6	800,900.77	459,835.85	6,287.03	0.00
18,450.0	90.00	358.38	12,501.6	8,883.8	6,335.9	143.2	800,899.35	459,885.83	6,336.99	0.00
18,500.0	90.00	358.38	12,501.6	8,883.8	6,385.9	141.8	800,897.94	459,935.81	6,386.96	0.00
18,550.0	90.00	358.38	12,501.6	8,883.8	6,435.9	140.4	800,896.53	459,985.79	6,436.92	0.00
18,600.0	90.00	358.38	12,501.6	8,883.8	6,485.8	139.0	800,895.11	460,035.77	6,486.89	0.00
18,650.0	90.00	358.38	12,501.6	8,883.8	6,535.8	137.6	800,893.70	460,085.75	6,536.85	0.00
18,700.0	90.00	358.38	12,501.6	8,883.8	6,585.8	136.2	800,892.29	460,135.73	6,586.81	0.00
18,750.0	90.00	358.38	12,501.6	8,883.8	6,635.8	134.7	800,890.87	460,185.71	6,636.78	0.00
18,800.0	90.00	358.38	12,501.6	8,883.8	6,685.8	133.3	800,889.46	460,235.69	6,686.74	0.00
18,850.0	90.00	358.38	12,501.6	8,883.8	6,735.7	131.9	800,888.05	460,285.67	6,736.71	0.00
18,900.0	90.00	358.38	12,501.6	8,883.8	6,785.7	130.5	800,886.63	460,335.65	6,786.67	0.00
18,950.0	90.00	358.38	12,501.6	8,883.8	6,835.7	129.1	800,885.22	460,385.63	6,836.63	0.00
19,000.0	90.00	358.38	12,501.6	8,883.8	6,885.7	127.7	800,883.80	460,435.61	6,886.60	0.00
19,050.0	90.00	358.38	12,501.6	8,883.8	6,935.7	126.3	800,882.39	460,485.59	6,936.56	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
19,100.0	90.00	358.38	12,501.6	8,883.8	6,985.6	124.8	800,880.98	460,535.57	6,986.53	0.00
19,150.0	90.00	358.38	12,501.6	8,883.8	7,035.6	123.4	800,879.56	460,585.55	7,036.49	0.00
19,200.0	90.00	358.38	12,501.6	8,883.8	7,085.6	122.0	800,878.15	460,635.53	7,086.45	0.00
19,250.0	90.00	358.38	12,501.6	8,883.8	7,135.6	120.6	800,876.74	460,685.51	7,136.42	0.00
19,300.0	90.00	358.38	12,501.6	8,883.8	7,185.6	119.2	800,875.32	460,735.49	7,186.38	0.00
19,350.0	90.00	358.38	12,501.6	8,883.8	7,235.5	117.8	800,873.91	460,785.47	7,236.35	0.00
19,400.0	90.00	358.38	12,501.6	8,883.8	7,285.5	116.4	800,872.50	460,835.45	7,286.31	0.00
19,450.0	90.00	358.38	12,501.6	8,883.8	7,335.5	114.9	800,871.08	460,885.43	7,336.27	0.00
19,500.0	90.00	358.38	12,501.6	8,883.8	7,385.5	113.5	800,869.67	460,935.41	7,386.24	0.00
19,550.0	90.00	358.38	12,501.6	8,883.8	7,435.5	112.1	800,868.26	460,985.39	7,436.20	0.00
19,600.0	90.00	358.38	12,501.6	8,883.8	7,485.4	110.7	800,866.84	461,035.37	7,486.17	0.00
19,650.0	90.00	358.38	12,501.6	8,883.8	7,535.4	109.3	800,865.43	461,085.35	7,536.13	0.00
19,700.0	90.00	358.38	12,501.6	8,883.8	7,585.4	107.9	800,864.02	461,135.33	7,586.09	0.00
19,750.0	90.00	358.38	12,501.6	8,883.8	7,635.4	106.5	800,862.60	461,185.31	7,636.06	0.00
19,800.0	90.00	358.38	12,501.6	8,883.8	7,685.4	105.1	800,861.19	461,235.29	7,686.02	0.00
19,850.0	90.00	358.38	12,501.6	8,883.8	7,735.3	103.6	800,859.77	461,285.27	7,735.99	0.00
19,900.0	90.00	358.38	12,501.6	8,883.8	7,785.3	102.2	800,858.36	461,335.25	7,785.95	0.00
19,950.0	90.00	358.38	12,501.6	8,883.8	7,835.3	100.8	800,856.95	461,385.23	7,835.91	0.00
20,000.0	90.00	358.38	12,501.6	8,883.8	7,885.3	99.4	800,855.53	461,435.21	7,885.88	0.00
20,050.0	90.00	358.38	12,501.6	8,883.8	7,935.3	98.0	800,854.12	461,485.19	7,935.84	0.00
20,100.0	90.00	358.38	12,501.6	8,883.8	7,985.2	96.6	800,852.71	461,535.17	7,985.81	0.00
20,150.0	90.00	358.38	12,501.6	8,883.8	8,035.2	95.2	800,851.29	461,585.15	8,035.77	0.00
20,200.0	90.00	358.38	12,501.6	8,883.8	8,085.2	93.7	800,849.88	461,635.13	8,085.73	0.00
20,250.0	90.00	358.38	12,501.6	8,883.8	8,135.2	92.3	800,848.47	461,685.11	8,135.70	0.00
20,300.0	90.00	358.38	12,501.6	8,883.8	8,185.2	90.9	800,847.05	461,735.09	8,185.66	0.00
20,350.0	90.00	358.38	12,501.6	8,883.8	8,235.1	89.5	800,845.64	461,785.07	8,235.63	0.00
20,400.0	90.00	358.38	12,501.6	8,883.8	8,285.1	88.1	800,844.23	461,835.05	8,285.59	0.00

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**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)
20,450.0	90.00	358.38	12,501.6	8,883.8	8,335.1	86.7	800,842.81	461,885.03	8,335.55	0.00
20,500.0	90.00	358.38	12,501.6	8,883.8	8,385.1	85.3	800,841.40	461,935.01	8,385.52	0.00
20,550.0	90.00	358.38	12,501.6	8,883.8	8,435.1	83.9	800,839.99	461,984.99	8,435.48	0.00
20,600.0	90.00	358.38	12,501.6	8,883.8	8,485.0	82.4	800,838.57	462,034.97	8,485.45	0.00
20,608.0	90.00	358.38	12,501.6	8,883.8	8,493.0	82.2	800,838.35	462,042.97	8,493.44	0.00
TD at 20608.0 - 5 1/2" Production Casing										

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
120.0	120.0	20" Conductor	20	26
1,447.0	1,447.0	13 3/8" Surface Casing	13-3/8	17-1/2
5,247.0	5,247.0	9 5/8" Intermediate Casing	9-5/8	12-1/4
20,608.0	12,501.6	5 1/2" Production Casing	5-1/2	8-3/4

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**Database:**	EDM 5000.1 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,272.0	6,272.0	Cherry Canyon		0.00	
1,422.0	1,422.0	Rustler		0.00	
5,422.0	5,422.0	Bell Canyon		0.00	
7,747.0	7,747.0	Brushy Canyon		0.00	
5,022.0	5,022.0	Base of Salt		0.00	
10,668.4	10,657.0	2nd Bone Spring Sand		0.00	
8,888.6	8,887.0	Bone Spring		0.00	
5,222.0	5,222.0	Lamar Lime		0.00	
11,186.2	11,172.0	3rd Bone Spring Lime		0.00	
9,081.7	9,079.0	Avalon		0.00	
11,668.9	11,652.0	3rd Bone Spring Sand		0.00	
1,847.0	1,847.0	Salado		0.00	
10,130.4	10,122.0	1st Bone Spring Sand		0.00	
2,022.0	2,022.0	Top of Salt		0.00	
11,974.3	11,957.0	Wolfcamp		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,456.0	8,456.0	0.0	0.0	Start Build 3.00
8,656.0	8,655.6	5.0	9.2	Start 3030.0 hold at 8656.0 MD
11,686.0	11,669.0	156.1	287.5	Start Drop -3.00
11,886.0	11,868.7	161.1	296.7	Start 60.0 hold at 11886.0 MD
11,946.0	11,928.7	161.1	296.7	Start Build 10.00
12,846.0	12,501.6	734.1	296.7	Start 124.0 hold at 12846.0 MD
12,970.0	12,501.6	858.1	296.7	Start Turn -1.62
13,070.0	12,501.6	958.1	295.3	Start 7538.0 hold at 13070.0 MD
20,608.0	12,501.6	8,493.0	82.2	TD at 20608.0

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 433H
Project:	Bell Lake Unit South 433H	**TVD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Site:	Bell Lake Unit South 433H	**MD Reference:**	WELL @ 3617.8usft (Original Well Elev)
Well:	Bell Lake Unit South 433H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 433H	**Survey Calculation Method:**	Minimum Curvature
Design:	190303 Bell Lake Unit South 433H	**Database:**	EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____

Project: Bell Lake Unit South 433H
Site: Bell Lake Unit South 433H
Well: Bell Lake Unit South 433H
Wellbore: Bell Lake Unit South 433H
Design: 190303 Bell Lake Unit South 433H

KAISER-FRANCIS OIL COMPANY

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.14°

Magnetic Field
Strength: 47863.3snT
Dip Angle: 60.02°
Date: 3/3/2019
Model: IGRF2010

CASING DETAILS

TVD	MD	Name	Size
120.0	120.0	20" Conductor	20
1447.0	1447.0	13 3/8" Surface Casing	13-3/8
5247.0	5247.0	9 5/8" Intermediate Casing	9-5/8
12501.6	20608.0	5 1/2" Production Casing	5-1/2

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
1422.0	1422.0	Rustler	0.00	
1847.0	1847.0	Salado	0.00	
2022.0	2022.0	Top of Salt	0.00	
5022.0	5022.0	Base of Salt	0.00	
5222.0	5222.0	Lamar Lime	0.00	
5422.0	5422.0	Bell Canyon	0.00	
6272.0	6272.0	Cherry Canyon	0.00	
7747.0	7747.0	Brushy Canyon	0.00	
8887.0	8888.6	Bone Spring	0.00	
9079.0	9081.7	Avalon	0.00	
10122.0	10130.4	1st Bone Spring Sand	0.00	
10657.0	10668.4	2nd Bone Spring Sand	0.00	
11172.0	11186.2	3rd Bone Spring Lime	0.00	
11652.0	11668.9	3rd Bone Spring Sand	0.00	
11957.0	11974.3	Wolfcamp	0.00