District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 331541

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
KAISER-FRANCIS OIL CO PO Box 21468 Tulsa, OK 74121146	12361
	3. API Number 30-015-53367

4. Property Code	5. Property Name	6. Well No.
333758	BRANTLEY FEE 2419 1BSS	001H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	24	23S	28E		1776	S	284	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
I	19	23S	29E	I	1980	S	100	E	Eddy

9. Pool Information

CULEBRA BLUFF;BONE SPRING, SOUTH	15011

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		Private	2997
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	17350	1st Bone Spring Sand		4/10/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	550	317	0
Int1	12.25	9.625	40	2784	610	0
Prod	8.5	5.5	23	17350	2296	1784

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3500	Hydril
Double Ram	10000	5000	Cameron
Pipe	10000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

Printed Name:	Electronically filed by Kristin L Gray	Approved By:	Katherine Pickford
Title:		Title:	Geoscientist
Email Address:	kristing@kfoc.net	Approved Date:	2/7/2023
Date:	2/2/2023	Phone: 918-491-4209	Conditions of Approval Attached

OIL CONSERVATION DIVISION

Expiration Date: 2/7/2025

District I
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Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-53367	15011	Culebra Bluff; Bone Spring, South

[4] Property Code	[5] Property Name	[6] Well Number
333758	BRANTLEY FEE 2419 1BSS	1H

[7] OGRID No.	[8] Operator Name	[9] Elevation
12361	KAISER-FRANCIS OIL COMPANY	2997.1

[10] Surface Location

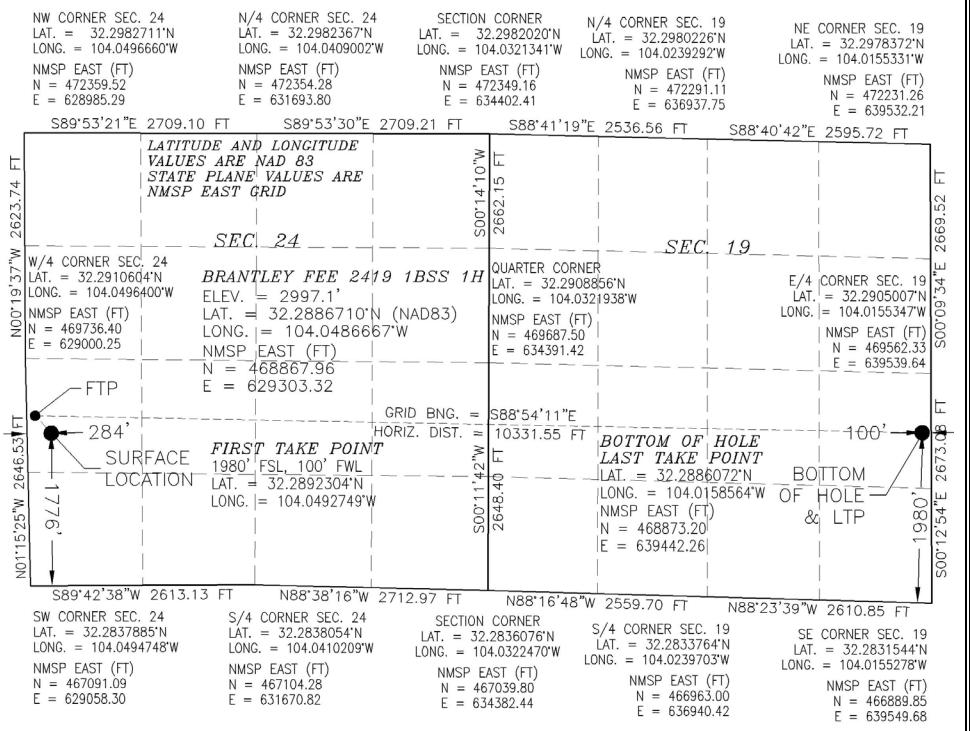
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	23 S	28 E		1776	SOUTH	284	WEST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	19	23 S	29 E		1980	SOUTH	100	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
318.46			

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



[17] OPERATOR CERTIFICATION

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

Christina Opfer — 1/4/2023
Signature — Date

Christina Opfer
Printed Name

ChristinaO@kfoc.net
E-mail Address

[18] SURVEYOR CERTIFICATION

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

SEPTEMBER 14, 2022
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: EDMON F. JARAMILLO, LS 12797
SURVEY NO. 9495

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
KAISER-FRANCIS OIL COMPANY	BRANTLEY FEE 2419 1BSS	1H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
L	24	23S	28E		1980	SOUTH	100	WEST	EDDY

Latitude	Longitude	NAD
32.2892304	104.0492749	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
I	19	23S	29E		1980	SOUTH	100	EAST	EDDY

Latitude	Longitude	NAD
32.2886072	104.0158564	83

Is this well the defining well for the Horizontal Spacing Unit? [ ]

Is this well an infill well? [ ]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

Form APD Conditions

Permit 331541

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
KAISER-FRANCIS OIL CO [12361] PO Box 21468 Tulsa, OK 74121146	30-015-53367
	Well: BRANTLEY FEE 2419 1BSS #001H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Kaiser-Francis Oil Company **OGRID:** 12361 **Date:** 01 / 04 /2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Brantley Fee 2419 1BSS 1H		L- Sec 24- T23S- R28E	1776 FSL 284 FWL	1800	3000	2000
Brantley Fee 2419 1BSS 2H		L- Sec 24- T23S- R28E	1716 FSL 284 FWL	1800	3000	2000

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

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Brantley Fee 2419 1BSS 1H		4/10/23	4/29/23	5/6/23	5/21/23	5/21/23
Brantley Fee 2419 1BSS 2H		4/30/23	5/19/23	5/26/23	6/10/23	6/10/23

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

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

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

Kaiser-Francis Oil Company
Natural Gas Management Plan

Plan Description

VI. Separation Equipment

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

VII. Operational Practices

A. VENTING AND FLARING OF NATURAL GAS

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

B. Venting and flaring during drilling operations

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

C. Venting and flaring during completion or recompletion operations

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

D. Venting and flaring during production operations

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

E. Performance Standards

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

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

F. Measurement or estimation of vented or flared natural gas

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

VIII. Best Management Practices

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

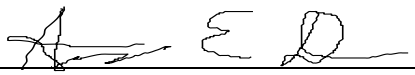
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature:	
Printed Name:	Aaron Daniels
Title:	EHS Manager
E-mail Address:	aarond@kfoc.net
Date:	1/27/2023
Phone:	918-491-4352

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

KAISER FRANCIS OIL CO.

EDDY COUNTY, N.M. 83
SEC 24-T23S-R28E
BRANTLEY FEE 2419 1BSS #1H

ORIGINAL WELLPATH

Plan: PRELIM PLAN 1, REV1

Standard Planning Report

10 January, 2023

Kaiser-Francis Oil Company

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Project EDDY COUNTY, N.M. 83

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

Site SEC 24-T23S-R28E

Site Position:		**Northing:**	467,096.60 usft	**Latitude:**	32.28380362
From:	Map	**Easting:**	629,056.70 usft	**Longitude:**	-104.04947996
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well BRANTLEY FEE 2419 1BSS #1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	468,867.96 usft	**Latitude:**	32.28867102
	+E/-W	0.00 usft	**Easting:**	629,303.32 usft	**Longitude:**	-104.04866671
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,997.10 usft
Grid Convergence:		0.15 °				

Wellbore ORIGINAL WELLPATH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/9/2023	6.59	59.84	47,322.60040394

Design PRELIM PLAN 1, REV1

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	91.10

Plan Survey Tool Program **Date** 1/10/2023

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,622.32	PRELIM PLAN 1, REV1 (ORIGIN	MWD+HRGM OWSG MWD + HRGM	

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,907.84	6.16	314.36	2,907.25	11.55	-11.81	2.00	2.00	0.00	314.36	
5,709.50	6.16	314.36	5,692.75	221.64	-226.65	0.00	0.00	0.00	0.00	
6,017.34	0.00	0.00	6,000.00	233.19	-238.46	2.00	-2.00	0.00	180.00	
6,969.88	0.00	0.00	6,952.54	233.19	-238.46	0.00	0.00	0.00	0.00	
7,719.88	90.00	94.10	7,430.00	199.05	237.78	12.00	12.00	0.00	94.10	
7,869.95	90.00	91.10	7,430.00	192.25	387.68	2.00	0.00	-2.00	-90.00	
17,623.01	90.00	91.10	7,430.00	5.24	10,138.94	0.00	0.00	0.00	0.00	BF 1H PBHL: 1980' F

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
2,700.00	2.00	314.36	2,699.98	1.22	-1.25	-1.27	2.00	2.00	0.00
2,800.00	4.00	314.36	2,799.84	4.88	-4.99	-5.08	2.00	2.00	0.00
2,907.84	6.16	314.36	2,907.25	11.55	-11.81	-12.03	2.00	2.00	0.00
Start 2801.66 hold at 2907.84 MD									
3,000.00	6.16	314.36	2,998.88	18.46	-18.88	-19.23	0.00	0.00	0.00
3,100.00	6.16	314.36	3,098.30	25.96	-26.55	-27.04	0.00	0.00	0.00
3,200.00	6.16	314.36	3,197.72	33.46	-34.22	-34.85	0.00	0.00	0.00
3,300.00	6.16	314.36	3,297.15	40.96	-41.88	-42.66	0.00	0.00	0.00
3,400.00	6.16	314.36	3,396.57	48.46	-49.55	-50.47	0.00	0.00	0.00
3,500.00	6.16	314.36	3,495.99	55.96	-57.22	-58.28	0.00	0.00	0.00
3,600.00	6.16	314.36	3,595.42	63.45	-64.89	-66.09	0.00	0.00	0.00
3,700.00	6.16	314.36	3,694.84	70.95	-72.56	-73.91	0.00	0.00	0.00
3,800.00	6.16	314.36	3,794.26	78.45	-80.22	-81.72	0.00	0.00	0.00
3,900.00	6.16	314.36	3,893.69	85.95	-87.89	-89.53	0.00	0.00	0.00
4,000.00	6.16	314.36	3,993.11	93.45	-95.56	-97.34	0.00	0.00	0.00
4,100.00	6.16	314.36	4,092.53	100.95	-103.23	-105.15	0.00	0.00	0.00
4,200.00	6.16	314.36	4,191.95	108.45	-110.90	-112.96	0.00	0.00	0.00
4,300.00	6.16	314.36	4,291.38	115.94	-118.56	-120.77	0.00	0.00	0.00
4,400.00	6.16	314.36	4,390.80	123.44	-126.23	-128.58	0.00	0.00	0.00
4,500.00	6.16	314.36	4,490.22	130.94	-133.90	-136.39	0.00	0.00	0.00
4,600.00	6.16	314.36	4,589.65	138.44	-141.57	-144.20	0.00	0.00	0.00
4,700.00	6.16	314.36	4,689.07	145.94	-149.24	-152.01	0.00	0.00	0.00
4,800.00	6.16	314.36	4,788.49	153.44	-156.90	-159.82	0.00	0.00	0.00
4,900.00	6.16	314.36	4,887.92	160.94	-164.57	-167.63	0.00	0.00	0.00

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	6.16	314.36	4,987.34	168.43	-172.24	-175.44	0.00	0.00	0.00
5,100.00	6.16	314.36	5,086.76	175.93	-179.91	-183.25	0.00	0.00	0.00
5,200.00	6.16	314.36	5,186.19	183.43	-187.58	-191.06	0.00	0.00	0.00
5,300.00	6.16	314.36	5,285.61	190.93	-195.24	-198.87	0.00	0.00	0.00
5,400.00	6.16	314.36	5,385.03	198.43	-202.91	-206.68	0.00	0.00	0.00
5,500.00	6.16	314.36	5,484.46	205.93	-210.58	-214.50	0.00	0.00	0.00
5,600.00	6.16	314.36	5,583.88	213.43	-218.25	-222.31	0.00	0.00	0.00
5,709.50	6.16	314.36	5,692.75	221.64	-226.65	-230.86	0.00	0.00	0.00
Start Drop -2.00									
5,800.00	4.35	314.36	5,782.86	227.43	-232.57	-236.89	2.00	-2.00	0.00
5,900.00	2.35	314.36	5,882.69	231.51	-236.74	-241.14	2.00	-2.00	0.00
6,000.00	0.35	314.36	5,982.66	233.15	-238.42	-242.85	2.00	-2.00	0.00
6,017.34	0.00	0.00	6,000.00	233.19	-238.46	-242.89	2.00	-2.00	0.00
Start 952.54 hold at 6017.34 MD									
6,100.00	0.00	0.00	6,082.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,200.00	0.00	0.00	6,182.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,300.00	0.00	0.00	6,282.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,400.00	0.00	0.00	6,382.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,500.00	0.00	0.00	6,482.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,600.00	0.00	0.00	6,582.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,700.00	0.00	0.00	6,682.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,800.00	0.00	0.00	6,782.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,900.00	0.00	0.00	6,882.66	233.19	-238.46	-242.89	0.00	0.00	0.00
6,969.88	0.00	0.00	6,952.54	233.19	-238.46	-242.89	0.00	0.00	0.00
Start Build 12.00									
6,975.00	0.61	94.10	6,957.66	233.19	-238.43	-242.86	12.00	12.00	0.00
7,000.00	3.61	94.10	6,982.64	233.12	-237.51	-241.94	12.00	12.00	0.00
7,025.00	6.61	94.10	7,007.53	232.96	-235.29	-239.72	12.00	12.00	0.00
7,050.00	9.61	94.10	7,032.28	232.71	-231.77	-236.20	12.00	12.00	0.00
7,075.00	12.61	94.10	7,056.81	232.37	-226.96	-231.38	12.00	12.00	0.00
7,100.00	15.61	94.10	7,081.05	231.93	-220.88	-225.30	12.00	12.00	0.00
7,125.00	18.61	94.10	7,104.94	231.40	-213.55	-217.95	12.00	12.00	0.00
7,150.00	21.61	94.10	7,128.41	230.79	-204.97	-209.37	12.00	12.00	0.00
7,175.00	24.61	94.10	7,151.40	230.09	-195.19	-199.57	12.00	12.00	0.00
7,200.00	27.61	94.10	7,173.85	229.30	-184.21	-188.58	12.00	12.00	0.00
7,225.00	30.61	94.10	7,195.69	228.43	-172.08	-176.43	12.00	12.00	0.00
7,250.00	33.61	94.10	7,216.86	227.48	-158.83	-163.16	12.00	12.00	0.00
7,275.00	36.61	94.10	7,237.31	226.45	-144.48	-148.80	12.00	12.00	0.00
7,300.00	39.61	94.10	7,256.98	225.35	-129.09	-133.40	12.00	12.00	0.00
7,325.00	42.61	94.10	7,275.81	224.18	-112.70	-116.98	12.00	12.00	0.00
7,350.00	45.61	94.10	7,293.76	222.93	-95.34	-99.61	12.00	12.00	0.00
7,375.00	48.61	94.10	7,310.77	221.62	-77.07	-81.32	12.00	12.00	0.00
7,400.00	51.61	94.10	7,326.80	220.25	-57.94	-62.16	12.00	12.00	0.00
7,425.00	54.61	94.10	7,341.80	218.82	-38.00	-42.19	12.00	12.00	0.00
7,450.00	57.61	94.10	7,355.74	217.34	-17.30	-21.47	12.00	12.00	0.00
7,475.00	60.61	94.10	7,368.57	215.80	4.09	-0.05	12.00	12.00	0.00
7,500.00	63.61	94.10	7,380.26	214.22	26.13	22.02	12.00	12.00	0.00
7,525.00	66.61	94.10	7,390.78	212.60	48.75	44.66	12.00	12.00	0.00
7,550.00	69.61	94.10	7,400.10	210.94	71.89	67.82	12.00	12.00	0.00
7,575.00	72.61	94.10	7,408.19	209.25	95.48	91.44	12.00	12.00	0.00
7,600.00	75.61	94.10	7,415.03	207.53	119.46	115.45	12.00	12.00	0.00
7,625.00	78.61	94.10	7,420.61	205.79	143.76	139.79	12.00	12.00	0.00

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

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)
7,650.00	81.61	94.10	7,424.90	204.03	168.33	164.38	12.00	12.00	0.00
7,675.00	84.61	94.10	7,427.90	202.26	193.08	189.16	12.00	12.00	0.00
7,700.00	87.61	94.10	7,429.59	200.47	217.96	214.07	12.00	12.00	0.00
7,719.88	90.00	94.10	7,430.00	199.05	237.78	233.92	12.00	12.00	0.00
Start DLS 2.00 TFO -90.00									
7,800.00	90.00	92.50	7,430.00	194.44	317.76	313.97	2.00	0.00	-2.00
7,869.95	90.00	91.10	7,430.00	192.25	387.68	383.92	2.00	0.00	-2.00
Start 9753.05 hold at 7869.95 MD									
7,900.00	90.00	91.10	7,430.00	191.67	417.72	413.97	0.00	0.00	0.00
8,000.00	90.00	91.10	7,430.00	189.75	517.70	513.97	0.00	0.00	0.00
8,100.00	90.00	91.10	7,430.00	187.84	617.69	613.97	0.00	0.00	0.00
8,200.00	90.00	91.10	7,430.00	185.92	717.67	713.97	0.00	0.00	0.00
8,300.00	90.00	91.10	7,430.00	184.00	817.65	813.97	0.00	0.00	0.00
8,400.00	90.00	91.10	7,430.00	182.08	917.63	913.97	0.00	0.00	0.00
8,500.00	90.00	91.10	7,430.00	180.17	1,017.61	1,013.97	0.00	0.00	0.00
8,600.00	90.00	91.10	7,430.00	178.25	1,117.59	1,113.97	0.00	0.00	0.00
8,700.00	90.00	91.10	7,430.00	176.33	1,217.58	1,213.97	0.00	0.00	0.00
8,800.00	90.00	91.10	7,430.00	174.41	1,317.56	1,313.97	0.00	0.00	0.00
8,900.00	90.00	91.10	7,430.00	172.50	1,417.54	1,413.97	0.00	0.00	0.00
9,000.00	90.00	91.10	7,430.00	170.58	1,517.52	1,513.97	0.00	0.00	0.00
9,100.00	90.00	91.10	7,430.00	168.66	1,617.50	1,613.97	0.00	0.00	0.00
9,200.00	90.00	91.10	7,430.00	166.74	1,717.48	1,713.97	0.00	0.00	0.00
9,300.00	90.00	91.10	7,430.00	164.83	1,817.47	1,813.97	0.00	0.00	0.00
9,400.00	90.00	91.10	7,430.00	162.91	1,917.45	1,913.97	0.00	0.00	0.00
9,500.00	90.00	91.10	7,430.00	160.99	2,017.43	2,013.97	0.00	0.00	0.00
9,600.00	90.00	91.10	7,430.00	159.08	2,117.41	2,113.97	0.00	0.00	0.00
9,700.00	90.00	91.10	7,430.00	157.16	2,217.39	2,213.97	0.00	0.00	0.00
9,800.00	90.00	91.10	7,430.00	155.24	2,317.37	2,313.97	0.00	0.00	0.00
9,900.00	90.00	91.10	7,430.00	153.32	2,417.35	2,413.97	0.00	0.00	0.00
10,000.00	90.00	91.10	7,430.00	151.41	2,517.34	2,513.97	0.00	0.00	0.00
10,100.00	90.00	91.10	7,430.00	149.49	2,617.32	2,613.97	0.00	0.00	0.00
10,200.00	90.00	91.10	7,430.00	147.57	2,717.30	2,713.97	0.00	0.00	0.00
10,300.00	90.00	91.10	7,430.00	145.65	2,817.28	2,813.97	0.00	0.00	0.00
10,400.00	90.00	91.10	7,430.00	143.74	2,917.26	2,913.97	0.00	0.00	0.00
10,500.00	90.00	91.10	7,430.00	141.82	3,017.24	3,013.97	0.00	0.00	0.00
10,600.00	90.00	91.10	7,430.00	139.90	3,117.23	3,113.97	0.00	0.00	0.00
10,700.00	90.00	91.10	7,430.00	137.98	3,217.21	3,213.97	0.00	0.00	0.00
10,800.00	90.00	91.10	7,430.00	136.07	3,317.19	3,313.97	0.00	0.00	0.00
10,900.00	90.00	91.10	7,430.00	134.15	3,417.17	3,413.97	0.00	0.00	0.00
11,000.00	90.00	91.10	7,430.00	132.23	3,517.15	3,513.97	0.00	0.00	0.00
11,100.00	90.00	91.10	7,430.00	130.31	3,617.13	3,613.97	0.00	0.00	0.00
11,200.00	90.00	91.10	7,430.00	128.40	3,717.12	3,713.97	0.00	0.00	0.00
11,300.00	90.00	91.10	7,430.00	126.48	3,817.10	3,813.97	0.00	0.00	0.00
11,400.00	90.00	91.10	7,430.00	124.56	3,917.08	3,913.97	0.00	0.00	0.00
11,500.00	90.00	91.10	7,430.00	122.64	4,017.06	4,013.97	0.00	0.00	0.00
11,600.00	90.00	91.10	7,430.00	120.73	4,117.04	4,113.97	0.00	0.00	0.00
11,700.00	90.00	91.10	7,430.00	118.81	4,217.02	4,213.97	0.00	0.00	0.00
11,800.00	90.00	91.10	7,430.00	116.89	4,317.01	4,313.97	0.00	0.00	0.00
11,900.00	90.00	91.10	7,430.00	114.97	4,416.99	4,413.97	0.00	0.00	0.00
12,000.00	90.00	91.10	7,430.00	113.06	4,516.97	4,513.97	0.00	0.00	0.00
12,100.00	90.00	91.10	7,430.00	111.14	4,616.95	4,613.97	0.00	0.00	0.00
12,200.00	90.00	91.10	7,430.00	109.22	4,716.93	4,713.97	0.00	0.00	0.00

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,300.00	90.00	91.10	7,430.00	107.30	4,816.91	4,813.97	0.00	0.00	0.00
12,400.00	90.00	91.10	7,430.00	105.39	4,916.90	4,913.97	0.00	0.00	0.00
12,500.00	90.00	91.10	7,430.00	103.47	5,016.88	5,013.97	0.00	0.00	0.00
12,600.00	90.00	91.10	7,430.00	101.55	5,116.86	5,113.97	0.00	0.00	0.00
12,700.00	90.00	91.10	7,430.00	99.63	5,216.84	5,213.97	0.00	0.00	0.00
12,800.00	90.00	91.10	7,430.00	97.72	5,316.82	5,313.97	0.00	0.00	0.00
12,900.00	90.00	91.10	7,430.00	95.80	5,416.80	5,413.97	0.00	0.00	0.00
13,000.00	90.00	91.10	7,430.00	93.88	5,516.78	5,513.97	0.00	0.00	0.00
13,100.00	90.00	91.10	7,430.00	91.97	5,616.77	5,613.97	0.00	0.00	0.00
13,200.00	90.00	91.10	7,430.00	90.05	5,716.75	5,713.97	0.00	0.00	0.00
13,300.00	90.00	91.10	7,430.00	88.13	5,816.73	5,813.97	0.00	0.00	0.00
13,400.00	90.00	91.10	7,430.00	86.21	5,916.71	5,913.97	0.00	0.00	0.00
13,500.00	90.00	91.10	7,430.00	84.30	6,016.69	6,013.97	0.00	0.00	0.00
13,600.00	90.00	91.10	7,430.00	82.38	6,116.67	6,113.97	0.00	0.00	0.00
13,700.00	90.00	91.10	7,430.00	80.46	6,216.66	6,213.97	0.00	0.00	0.00
13,800.00	90.00	91.10	7,430.00	78.54	6,316.64	6,313.97	0.00	0.00	0.00
13,900.00	90.00	91.10	7,430.00	76.63	6,416.62	6,413.97	0.00	0.00	0.00
14,000.00	90.00	91.10	7,430.00	74.71	6,516.60	6,513.97	0.00	0.00	0.00
14,100.00	90.00	91.10	7,430.00	72.79	6,616.58	6,613.97	0.00	0.00	0.00
14,200.00	90.00	91.10	7,430.00	70.87	6,716.56	6,713.97	0.00	0.00	0.00
14,300.00	90.00	91.10	7,430.00	68.96	6,816.55	6,813.97	0.00	0.00	0.00
14,400.00	90.00	91.10	7,430.00	67.04	6,916.53	6,913.97	0.00	0.00	0.00
14,500.00	90.00	91.10	7,430.00	65.12	7,016.51	7,013.97	0.00	0.00	0.00
14,600.00	90.00	91.10	7,430.00	63.20	7,116.49	7,113.97	0.00	0.00	0.00
14,700.00	90.00	91.10	7,430.00	61.29	7,216.47	7,213.97	0.00	0.00	0.00
14,800.00	90.00	91.10	7,430.00	59.37	7,316.45	7,313.97	0.00	0.00	0.00
14,900.00	90.00	91.10	7,430.00	57.45	7,416.44	7,413.97	0.00	0.00	0.00
15,000.00	90.00	91.10	7,430.00	55.53	7,516.42	7,513.97	0.00	0.00	0.00
15,100.00	90.00	91.10	7,430.00	53.62	7,616.40	7,613.97	0.00	0.00	0.00
15,200.00	90.00	91.10	7,430.00	51.70	7,716.38	7,713.97	0.00	0.00	0.00
15,300.00	90.00	91.10	7,430.00	49.78	7,816.36	7,813.97	0.00	0.00	0.00
15,400.00	90.00	91.10	7,430.00	47.86	7,916.34	7,913.97	0.00	0.00	0.00
15,500.00	90.00	91.10	7,430.00	45.95	8,016.33	8,013.97	0.00	0.00	0.00
15,600.00	90.00	91.10	7,430.00	44.03	8,116.31	8,113.97	0.00	0.00	0.00
15,700.00	90.00	91.10	7,430.00	42.11	8,216.29	8,213.97	0.00	0.00	0.00
15,800.00	90.00	91.10	7,430.00	40.19	8,316.27	8,313.97	0.00	0.00	0.00
15,900.00	90.00	91.10	7,430.00	38.28	8,416.25	8,413.97	0.00	0.00	0.00
16,000.00	90.00	91.10	7,430.00	36.36	8,516.23	8,513.97	0.00	0.00	0.00
16,100.00	90.00	91.10	7,430.00	34.44	8,616.22	8,613.97	0.00	0.00	0.00
16,200.00	90.00	91.10	7,430.00	32.53	8,716.20	8,713.97	0.00	0.00	0.00
16,300.00	90.00	91.10	7,430.00	30.61	8,816.18	8,813.97	0.00	0.00	0.00
16,400.00	90.00	91.10	7,430.00	28.69	8,916.16	8,913.97	0.00	0.00	0.00
16,500.00	90.00	91.10	7,430.00	26.77	9,016.14	9,013.97	0.00	0.00	0.00
16,600.00	90.00	91.10	7,430.00	24.86	9,116.12	9,113.97	0.00	0.00	0.00
16,700.00	90.00	91.10	7,430.00	22.94	9,216.10	9,213.97	0.00	0.00	0.00
16,800.00	90.00	91.10	7,430.00	21.02	9,316.09	9,313.97	0.00	0.00	0.00
16,900.00	90.00	91.10	7,430.00	19.10	9,416.07	9,413.97	0.00	0.00	0.00
17,000.00	90.00	91.10	7,430.00	17.19	9,516.05	9,513.97	0.00	0.00	0.00
17,100.00	90.00	91.10	7,430.00	15.27	9,616.03	9,613.97	0.00	0.00	0.00
17,200.00	90.00	91.10	7,430.00	13.35	9,716.01	9,713.97	0.00	0.00	0.00
17,300.00	90.00	91.10	7,430.00	11.43	9,815.99	9,813.97	0.00	0.00	0.00
17,400.00	90.00	91.10	7,430.00	9.52	9,915.98	9,913.97	0.00	0.00	0.00

SB DIRECTIONAL

Planning Report

Kaiser-Francis Oil Company

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well BRANTLEY FEE 2419 1BSS #1H
Company:	KAISER FRANCIS OIL CO.	**TVD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Project:	EDDY COUNTY, N.M. 83	**MD Reference:**	2997.1' + 24' @ 3021.10usft (Original Well Elev)
Site:	SEC 24-T23S-R28E	**North Reference:**	Grid
Well:	BRANTLEY FEE 2419 1BSS #1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLPATH		
Design:	PRELIM PLAN 1, REV1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,500.00	90.00	91.10	7,430.00	7.60	10,015.96	10,013.97	0.00	0.00	0.00
17,600.00	90.00	91.10	7,430.00	5.68	10,115.94	10,113.97	0.00	0.00	0.00
17,623.01	90.00	91.10	7,430.00	5.24	10,138.94	10,136.97	0.00	0.00	0.00
TD at 17623.01									

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
BF 1H KOP: 1980' FSL &	0.00	0.00	6,852.54	203.19	-238.46	469,071.15	629,064.86	32.28923129	-104.04943665
- plan misses target center by 30.00usft at 6869.88usft MD (6852.54 TVD, 233.19 N, -238.46 E)									
- Point									
BF 1H PBHL: 1980' FSL	0.00	0.00	7,430.00	5.24	10,138.94	468,873.20	639,442.26	32.28860719	-104.01585640
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
17,616.93	7,430.00	20" Casing	20	24

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,600.00	2,600.00	0.00	0.00	Start Build 2.00
2,907.84	2,907.25	11.55	-11.81	Start 2801.66 hold at 2907.84 MD
5,709.50	5,692.75	221.64	-226.65	Start Drop -2.00
6,017.34	6,000.00	233.19	-238.46	Start 952.54 hold at 6017.34 MD
6,969.88	6,952.54	233.19	-238.46	Start Build 12.00
7,719.88	7,430.00	199.05	237.78	Start DLS 2.00 TFO -90.00
7,869.95	7,430.00	192.25	387.68	Start 9753.05 hold at 7869.95 MD
17,623.01	7,430.00	5.24	10,138.94	TD at 17623.01