

Well Name: BELL LAKE UNIT SOUTH	Well Location: T24S / R34E / SEC 6 / SENE / 32.2475815 / -103.5019316	County or Parish/State: LEA / NM
Well Number: 411H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC0061374A, NMLC061374A	Unit or CA Name: BELL LAKE	Unit or CA Number: NMNM068292X, NMNM68292X
US Well Number: 3002548210	Well Status: Producing Oil Well	Operator: KAISER FRANCIS OIL COMPANY

Notice of Intent

Sundry ID: 1341508

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 02/12/2021	Time Sundry Submitted: 08:47
Date proposed operation will begin: 02/11/2021	

Procedure Description: Kaiser-Francis Oil Company request to change the SHL for the following well on the Bell Lake Unit South Pad 10 Located in section 6-24S-34E: No new surface disturbance is requested. Bell Lake Unit South 411H API #30-025-48210 Approved SHL 2276 FNL 427 FEL 6-24S-34E Lea County New Mexico. Proposed SHL 2324 FNL 317 FEL 6-24S-34E Lea County New Mexico

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

BLUS_411H_C102_UPDATE_20210212084710.pdf

Well Name: BELL LAKE UNIT SOUTH	Well Location: T24S / R34E / SEC 6 / SENE / 32.2475815 / -103.5019316	County or Parish/State: LEA / NM
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Lease Number: NMLC0061374A, NMLC061374A	Unit or CA Name: BELL LAKE	Unit or CA Number: NMNM068292X, NMNM68292X
US Well Number: 3002548210	Well Status: Producing Oil Well	Operator: KAISER FRANCIS OIL COMPANY

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: ERIC HANSEN	Signed on: FEB 12, 2021 08:47 AM
Name: KAISER FRANCIS OIL COMPANY	
Title: Drilling Engineer	
Street Address: 6733 S. Yale Ave.	
City: Tulsa	State: OK
Phone: (918) 491-4339	
Email address: EricH@kfoc.net	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 03/10/2021
Signature: Chris Walls	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-48210	² Pool Code 98266	³ Pool Name Bell Lake, Wolfcamp, South
⁴ Property Code 316707	⁵ Property Name BELL LAKE UNIT SOUTH	⁶ Well Number 411H
⁷ OGRID No. 12361	⁸ Operator Name KAISER-FRANCIS OIL CO.	⁹ Elevation 3597.4

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	6	24 S	34 E		2324	NORTH	317	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	7	24 S	34 E		330	SOUTH	1410	EAST	LEA

¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14601
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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 9/26/22 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. JANUARY 13, 2021 Date of Survey WILLIAM F. JARAMILLO Signature and Seal of Professional Surveyor Certificate Number: PL 12797 SURVEY NO. 6748A
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Intent ☒ As Drilled ☐

API # 30-025-48210		
Operator Name: KAISER-FRANCIS OIL CO.	Property Name: BELL LAKE UNIT SOUTH	Well Number 411H

Kick Off Point (KOP)

UL H	Section 6	Township 24S	Range 34E	Lot	Feet 2324	From N/S NORTH	Feet 317	From E/W EAST	County LEA
Latitude 32.2474496					Longitude 103.5015752			NAD 83	

First Take Point (FTP)

UL I	Section 6	Township 24S	Range 34E	Lot	Feet 2600	From N/S SOUTH	Feet 1310	From E/W EAST	County LEA
Latitude 32.2464869					Longitude 103.5047823			NAD 83	

Last Take Point (LTP)

UL O	Section 7	Township 24S	Range 34E	Lot	Feet 330	From N/S SOUTH	Feet 1410	From E/W EAST	County LEA
Latitude 32.2257356					Longitude 103.5050543			NAD 83	

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

☒

Is this well an infill well?

☐

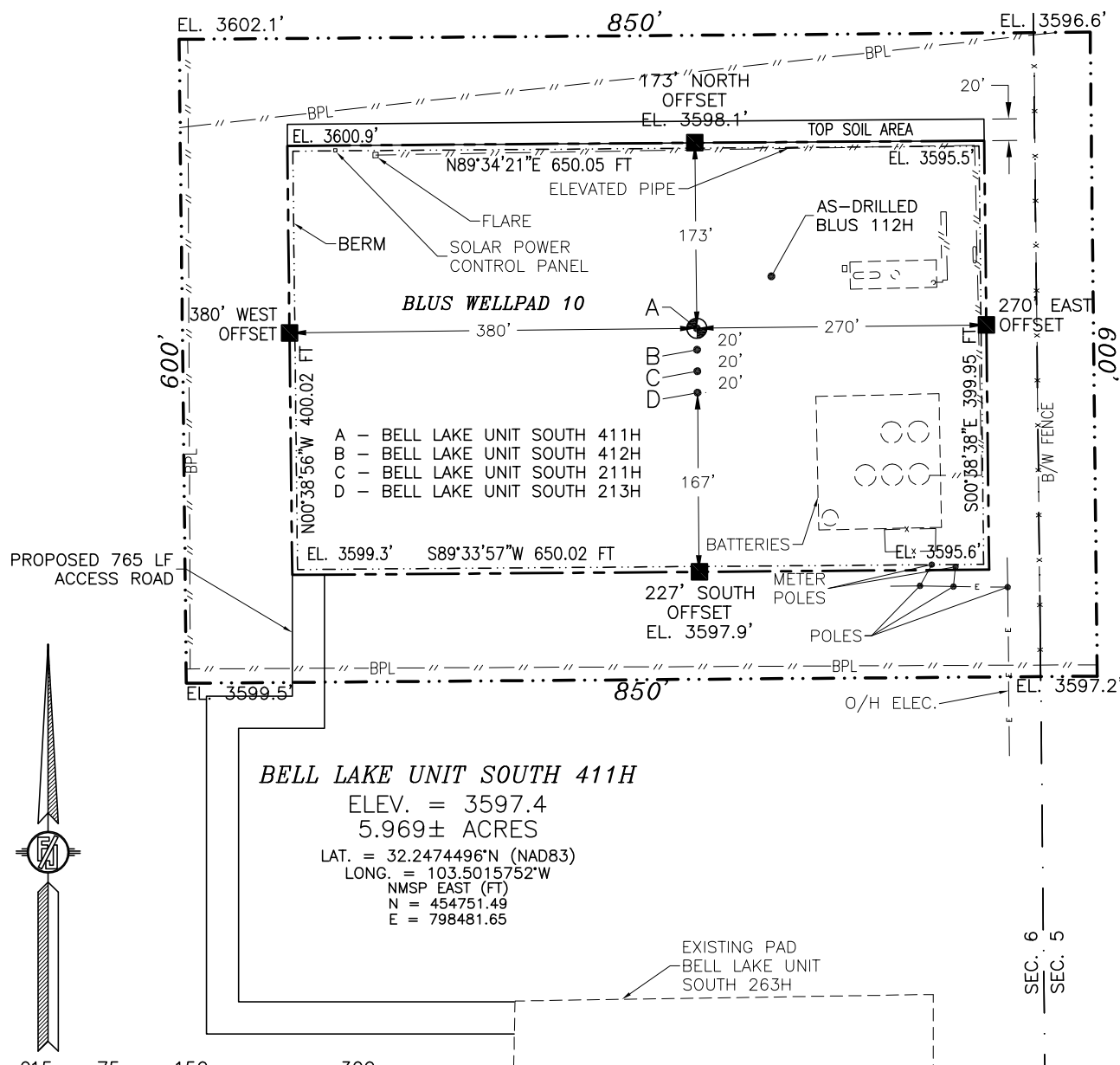
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88.



015 75 150 300
SCALE 1" = 150'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 APPROX. 2.6 MILES TO CR J1 (BELL LAKE ROAD) TURN RIGHT ON LEASE ROAD AND GO EAST-SOUTHEAST APPROX. 0.6 OF A MILE TO THE KAISER-FRANCIS BELL LAKE SOUTH PAD 11, FROM THE NORTHWEST PORTION OF THE EXISTING PAD FOLLOW PROPOSED ACCESS ROAD WEST FOR 272', TURN RIGHT AND GO NORTH 285', TURN RIGHT AND GO EAST 80', TURN LEFT AND GO NORTH 128' (TOTAL 765') TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE COMPLIED WITH THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, 1279

MADON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

KAISER-FRANCIS OIL CO.

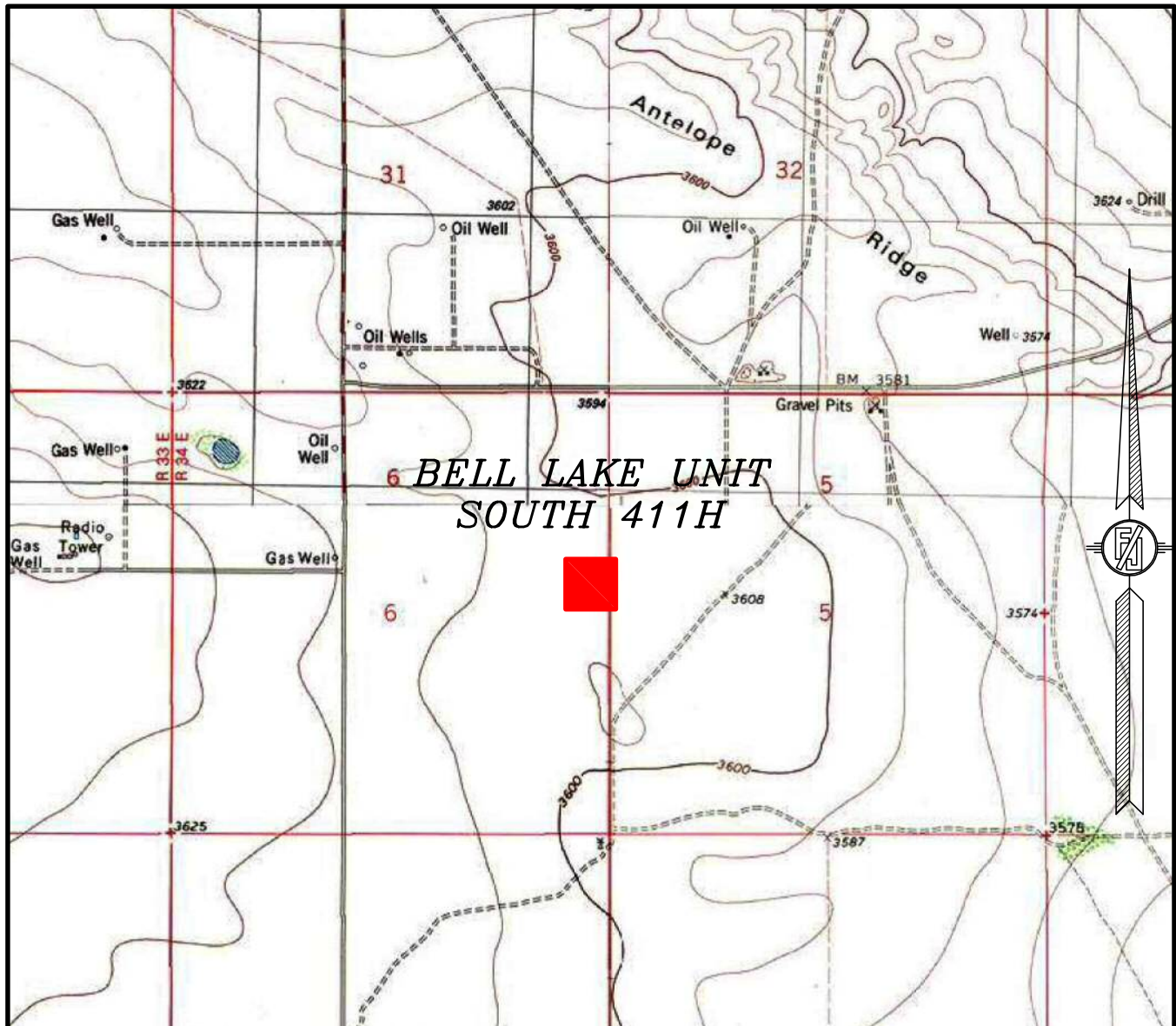
BELL LAKE UNIT SOUTH 411H

LOCATED 2324 FT. FROM THE NORTH LINE
AND 317 FT. FROM THE EAST LINE OF
SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JANUARY 13, 2021

SURVEY NO. 6748A

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
BELL LAKE

NOT TO SCALE

KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 411H
LOCATED 2324 FT. FROM THE NORTH LINE
AND 317 FT. FROM THE EAST LINE OF
SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

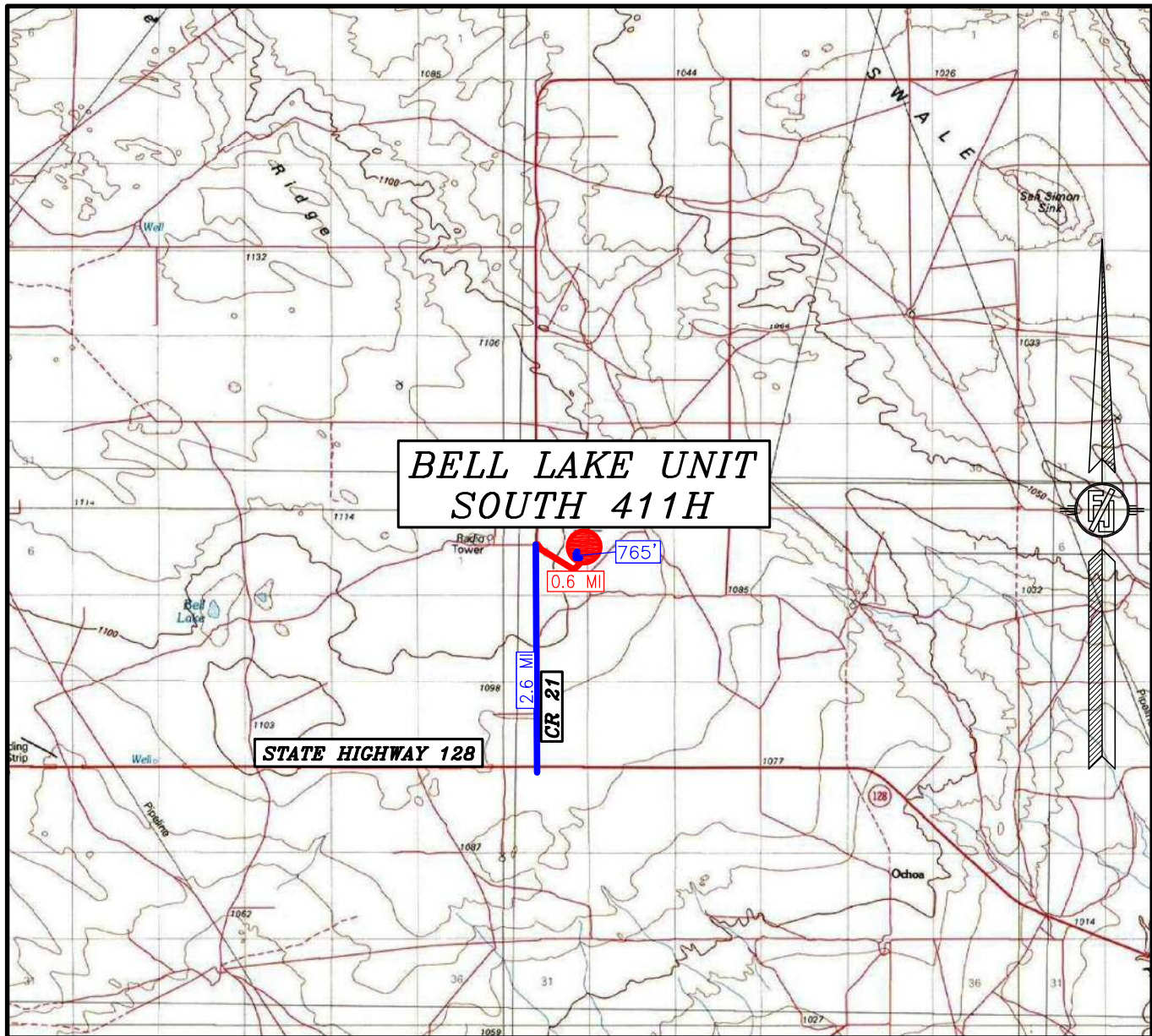
JANUARY 13, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 6748A
CARLSBAD, NEW MEXICO

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 APPROX. 2.6 MILES TO CR J1 (BELL LAKE ROAD) TURN RIGHT ON LEASE ROAD AND GO EAST-SOUTHEAST APPROX. 0.6 OF A MILE TO THE KAISER-FRANCIS BELL LAKE SOUTH PAD 11, FROM THE NORTHWEST PORTION OF THE EXISTING PAD FOLLOW PROPOSED ACCESS ROAD WEST FOR 272', TURN RIGHT AND GO NORTH 285', TURN RIGHT AND GO EAST 80', TURN LEFT AND GO NORTH 128' (TOTAL 765') TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 411H
LOCATED 2324 FT. FROM THE NORTH LINE
AND 317 FT. FROM THE EAST LINE OF
SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JANUARY 13, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 6748A

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2018

KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 411H
LOCATED 2324 FT. FROM THE NORTH LINE
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SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

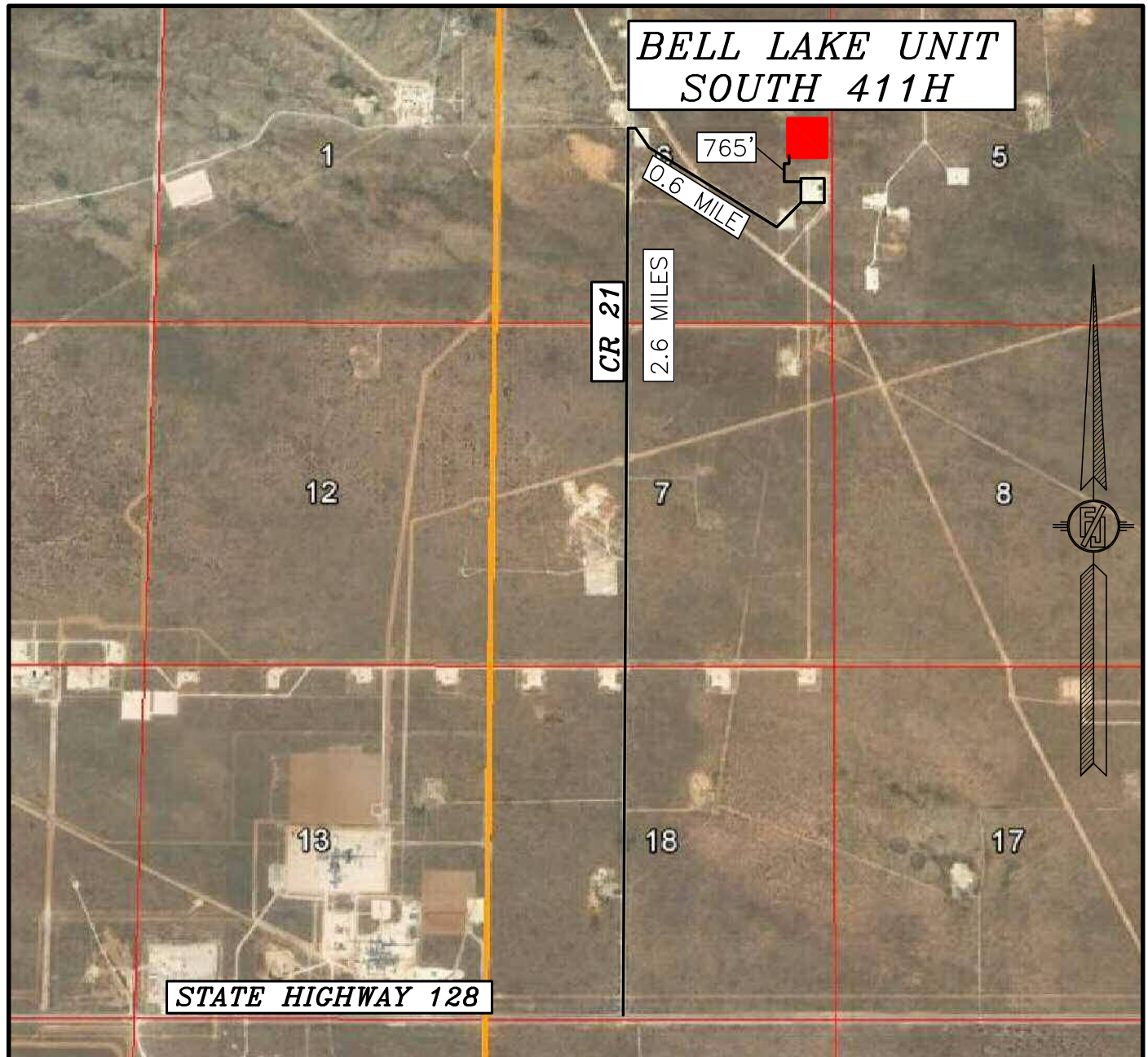
JANUARY 13, 2021

SURVEY NO. 6748A

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2018

KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 411H
LOCATED 2324 FT. FROM THE NORTH LINE
AND 317 FT. FROM THE EAST LINE OF
SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

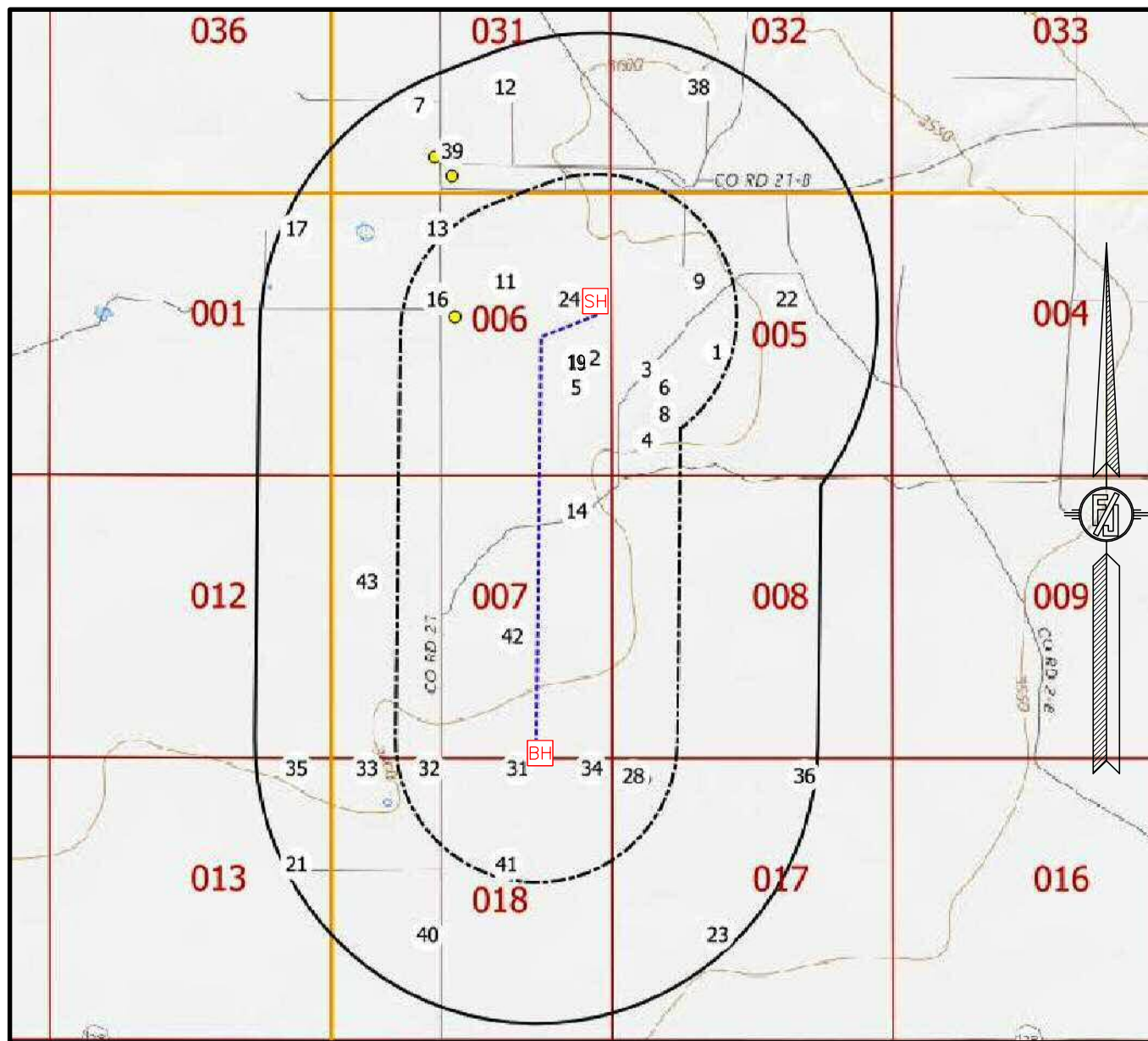
JANUARY 13, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 6748A
CARLSBAD, NEW MEXICO

1-MILE MAP



NOT TO SCALE

[SH] SURFACE LOCATION

[BH] BOTTOM OF HOLE

[XX] WELLS WITHIN 1 MILE

- - - - - WELL PATH

- . - . - . 1/4 MILE BOUNDARY

————— 1-MILE BOUNDARY

KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 411H
 LOCATED 2324 FT. FROM THE NORTH LINE
 AND 317 FT. FROM THE EAST LINE OF
 SECTION 6, TOWNSHIP 24 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

JANUARY 13, 2021

SURVEY NO. 6748A

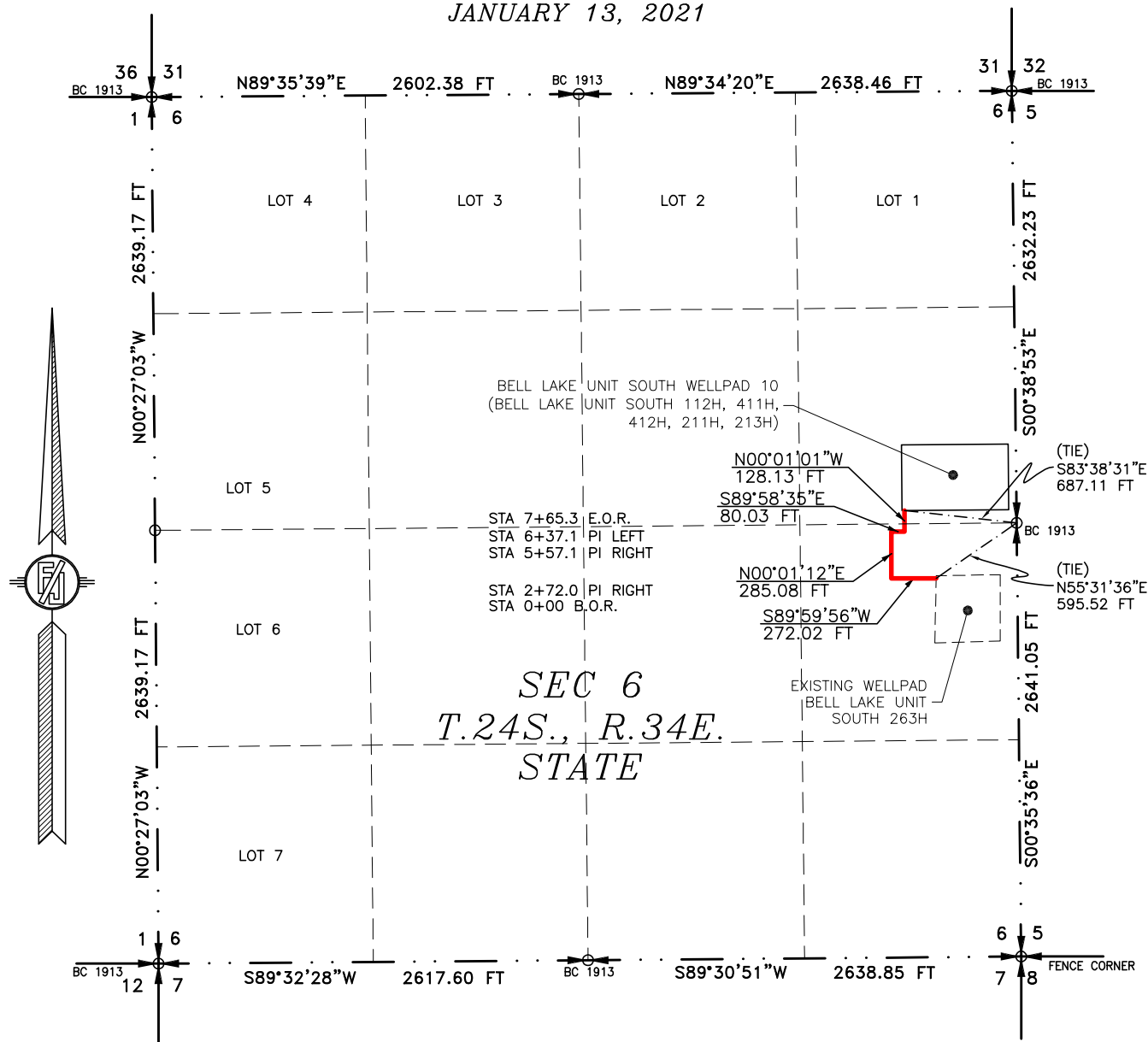
MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD TO THE BELL LAKE UNIT SOUTH WELLPAD 10
(BELL LAKE UNIT SOUTH 112H, 411H, 412H, 211H, 213H)

KAISER-FRANCIS OIL CO.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 13, 2021



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP
EAST (NAD83) MODIFIED TO SURFACE
COORDINATES. NAD 83 (FEET) AND NAVD 88
(FEET) COORDINATE SYSTEMS USED IN THE
SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CAMPBELL AVE. CARLSBAD, NEW MEXICO
(575) 234-3341

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS 18 DAY OF JANUARY 2021

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6748A

301 SOUTH CANAL
(575) 234-3341

ACCESS ROAD PLAT

ACCESS ROAD TO THE BELL LAKE UNIT SOUTH WELLPAD 10
(BELL LAKE UNIT SOUTH 112H, 411H, 412H, 211H, 213H)

KAISER-FRANCIS OIL CO.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
JANUARY 13, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 SE/4 OF SAID SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M., WHENCE THE EAST QUARTER CORNER OF SAID SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N55°31'36"E, A DISTANCE OF 595.52 FEET;
THENCE S89°59'56"W A DISTANCE OF 272.02 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°01'12"E A DISTANCE OF 285.08 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°58'35"E A DISTANCE OF 80.03 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°01'01"W A DISTANCE OF 128.13 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS S83°38'31"E, A DISTANCE OF 687.11 FEET;

SAID STRIP OF LAND BEING 765.26 FEET OR 46.38 RODS IN LENGTH, CONTAINING 0.527 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4	683.29 L.F.	41.41 RODS	0.471 ACRES
SE/4 NE/4	81.97 L.F.	4.97 RODS	0.056 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 18 DAY OF JANUARY 2021



MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6748A



KAISER FRANCIS OIL CO.

LEA COUNTY, N.M. 27

SEC 6-T24S-R34E

BELL LAKE UNIT S. 411H

HORIZONTAL

Plan: PLAN 2

Standard Planning Report

24 January, 2021

Kaiser-Francis Oil Company



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

Project	LEA COUNTY, N.M. 27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SEC 6-T24S-R34E		
Site Position:		Northing:	454,484.67 usft
From:	Map	Easting:	753,923.29 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.24683
		Longitude:	-103.51202
		Grid Convergence:	0.44 °

Well	BELL LAKE UNIT S. 411H		
Well Position	+N/-S	207.83 usft	Northing: 454,692.50 usft
	+E/-W	3,374.52 usft	Easting: 757,297.81 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,597.40 usft
		Latitude:	32.24733
		Longitude:	-103.50110
		Ground Level:	3,597.40 usft

Wellbore	HORIZONTAL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	01/20/21	6.56	59.95	47,555.30512032

Design	PLAN 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.00

Plan Survey Tool Program	Date	01/24/21		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,718.56	PLAN 2 (HORIZONTAL)	MWD
			OWSG MWD - Standard	



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

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	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,250.00	13.00	275.43	2,244.44	6.95	-73.09	2.00	2.00	0.00	275.43	
5,919.38	13.00	275.43	5,819.78	85.13	-894.82	0.00	0.00	0.00	0.00	
6,652.72	2.00	275.43	6,545.72	94.18	-989.96	1.50	-1.50	0.00	180.00	
11,126.80	2.00	275.43	11,017.08	108.97	-1,145.40	0.00	0.00	0.00	0.00	KOP 411H
11,983.12	85.42	179.45	11,590.00	-418.41	-1,158.79	10.00	9.74	-11.21	-96.14	PBHL 411H
12,484.35	85.42	179.45	11,630.02	-918.02	-1,154.03	0.00	0.00	0.00	0.00	
12,543.35	86.60	179.45	11,634.13	-976.87	-1,153.46	2.00	2.00	-0.01	-0.16	
12,985.27	86.60	179.45	11,660.34	-1,418.00	-1,149.23	0.00	0.00	0.00	0.00	
13,080.27	88.50	179.45	11,664.40	-1,512.90	-1,148.32	2.00	2.00	0.00	0.00	
13,485.53	88.50	179.45	11,675.01	-1,918.00	-1,144.43	0.00	0.00	0.00	0.00	
13,724.53	83.72	179.45	11,691.22	-2,156.37	-1,142.14	2.00	-2.00	0.00	180.00	
13,987.75	83.72	179.45	11,720.01	-2,418.00	-1,139.63	0.00	0.00	0.00	0.00	
14,490.79	83.72	179.45	11,775.04	-2,918.00	-1,134.83	0.00	0.00	0.00	0.00	
14,993.83	83.72	179.45	11,830.06	-3,418.00	-1,130.03	0.00	0.00	0.00	0.00	
15,022.83	83.14	179.45	11,833.38	-3,446.81	-1,129.75	2.00	-2.00	0.00	180.00	
15,497.44	83.14	179.45	11,890.07	-3,918.00	-1,125.23	0.00	0.00	0.00	0.00	
15,850.44	90.20	179.45	11,910.56	-4,270.16	-1,121.85	2.00	2.00	0.00	0.00	
15,998.29	90.20	179.45	11,910.05	-4,418.00	-1,120.43	0.00	0.00	0.00	0.00	
16,038.29	89.40	179.45	11,910.19	-4,458.00	-1,120.05	2.00	-2.00	0.00	180.00	
16,498.34	89.40	179.45	11,915.00	-4,918.00	-1,115.63	0.00	0.00	0.00	0.00	
16,528.34	90.00	179.45	11,915.16	-4,948.00	-1,115.34	2.00	2.00	0.00	0.00	
16,998.36	90.00	179.45	11,915.16	-5,418.00	-1,110.83	0.00	0.00	0.00	0.00	
17,092.36	88.12	179.45	11,916.70	-5,511.98	-1,109.93	2.00	-2.00	0.00	180.00	
17,498.62	88.12	179.45	11,930.03	-5,918.00	-1,106.03	0.00	0.00	0.00	0.00	
17,536.62	88.88	179.45	11,931.02	-5,955.99	-1,105.67	2.00	2.00	0.00	0.00	
17,998.74	88.88	179.45	11,940.06	-6,418.00	-1,101.23	0.00	0.00	0.00	0.00	
18,027.24	89.45	179.45	11,940.47	-6,446.50	-1,100.96	2.00	2.00	0.00	0.00	
18,498.79	89.45	179.45	11,945.00	-6,918.00	-1,096.43	0.00	0.00	0.00	0.00	
18,514.79	89.13	179.45	11,945.20	-6,934.00	-1,096.28	2.00	-2.00	0.00	180.00	
19,498.95	89.13	179.45	11,960.14	-7,918.00	-1,086.83	0.00	0.00	0.00	0.00	
19,550.69	90.16	179.57	11,960.46	-7,969.73	-1,086.39	2.00	1.99	0.23	6.69	
19,718.56	90.16	179.57	11,960.00	-8,137.60	-1,085.13	0.00	0.00	0.00	0.00	PBHL 411H



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

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
Start Nudge 2°/100' DLS									
1,700.00	2.00	275.43	1,699.98	0.17	-1.74	-0.17	2.00	2.00	0.00
1,800.00	4.00	275.43	1,799.84	0.66	-6.95	-0.66	2.00	2.00	0.00
1,900.00	6.00	275.43	1,899.45	1.49	-15.62	-1.49	2.00	2.00	0.00
2,000.00	8.00	275.43	1,998.70	2.64	-27.75	-2.64	2.00	2.00	0.00
2,100.00	10.00	275.43	2,097.47	4.12	-43.33	-4.12	2.00	2.00	0.00
2,200.00	12.00	275.43	2,195.62	5.93	-62.32	-5.93	2.00	2.00	0.00
2,250.00	13.00	275.43	2,244.44	6.95	-73.09	-6.95	2.00	2.00	0.00
Hold 13° Inc									
2,300.00	13.00	275.43	2,293.16	8.02	-84.29	-8.02	0.00	0.00	0.00
2,400.00	13.00	275.43	2,390.59	10.15	-106.69	-10.15	0.00	0.00	0.00
2,500.00	13.00	275.43	2,488.03	12.28	-129.08	-12.28	0.00	0.00	0.00
2,600.00	13.00	275.43	2,585.47	14.41	-151.47	-14.41	0.00	0.00	0.00
2,700.00	13.00	275.43	2,682.90	16.54	-173.87	-16.54	0.00	0.00	0.00
2,800.00	13.00	275.43	2,780.34	18.67	-196.26	-18.67	0.00	0.00	0.00
2,900.00	13.00	275.43	2,877.78	20.80	-218.66	-20.80	0.00	0.00	0.00
3,000.00	13.00	275.43	2,975.21	22.93	-241.05	-22.93	0.00	0.00	0.00
3,100.00	13.00	275.43	3,072.65	25.06	-263.44	-25.06	0.00	0.00	0.00
3,200.00	13.00	275.43	3,170.09	27.19	-285.84	-27.19	0.00	0.00	0.00
3,300.00	13.00	275.43	3,267.53	29.32	-308.23	-29.32	0.00	0.00	0.00
3,400.00	13.00	275.43	3,364.96	31.45	-330.63	-31.45	0.00	0.00	0.00
3,500.00	13.00	275.43	3,462.40	33.59	-353.02	-33.59	0.00	0.00	0.00
3,600.00	13.00	275.43	3,559.84	35.72	-375.41	-35.72	0.00	0.00	0.00
3,700.00	13.00	275.43	3,657.27	37.85	-397.81	-37.85	0.00	0.00	0.00
3,800.00	13.00	275.43	3,754.71	39.98	-420.20	-39.98	0.00	0.00	0.00
3,900.00	13.00	275.43	3,852.15	42.11	-442.60	-42.11	0.00	0.00	0.00
4,000.00	13.00	275.43	3,949.59	44.24	-464.99	-44.24	0.00	0.00	0.00
4,100.00	13.00	275.43	4,047.02	46.37	-487.38	-46.37	0.00	0.00	0.00
4,200.00	13.00	275.43	4,144.46	48.50	-509.78	-48.50	0.00	0.00	0.00
4,300.00	13.00	275.43	4,241.90	50.63	-532.17	-50.63	0.00	0.00	0.00
4,400.00	13.00	275.43	4,339.33	52.76	-554.57	-52.76	0.00	0.00	0.00
4,500.00	13.00	275.43	4,436.77	54.89	-576.96	-54.89	0.00	0.00	0.00
4,600.00	13.00	275.43	4,534.21	57.02	-599.35	-57.02	0.00	0.00	0.00
4,700.00	13.00	275.43	4,631.64	59.15	-621.75	-59.15	0.00	0.00	0.00
4,800.00	13.00	275.43	4,729.08	61.28	-644.14	-61.28	0.00	0.00	0.00
4,900.00	13.00	275.43	4,826.52	63.41	-666.54	-63.41	0.00	0.00	0.00
5,000.00	13.00	275.43	4,923.96	65.54	-688.93	-65.54	0.00	0.00	0.00



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

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)
5,100.00	13.00	275.43	5,021.39	67.67	-711.32	-67.67	0.00	0.00	0.00
5,200.00	13.00	275.43	5,118.83	69.80	-733.72	-69.80	0.00	0.00	0.00
5,300.00	13.00	275.43	5,216.27	71.93	-756.11	-71.93	0.00	0.00	0.00
5,400.00	13.00	275.43	5,313.70	74.06	-778.50	-74.06	0.00	0.00	0.00
5,500.00	13.00	275.43	5,411.14	76.20	-800.90	-76.20	0.00	0.00	0.00
5,600.00	13.00	275.43	5,508.58	78.33	-823.29	-78.33	0.00	0.00	0.00
5,700.00	13.00	275.43	5,606.01	80.46	-845.69	-80.46	0.00	0.00	0.00
5,800.00	13.00	275.43	5,703.45	82.59	-868.08	-82.59	0.00	0.00	0.00
5,900.00	13.00	275.43	5,800.89	84.72	-890.47	-84.72	0.00	0.00	0.00
5,919.38	13.00	275.43	5,819.77	85.13	-894.81	-85.13	0.00	0.00	0.00
Start Drop 1.5°/100' DLS									
6,000.00	11.79	275.43	5,898.51	86.77	-912.04	-86.77	1.50	-1.50	0.00
6,100.00	10.29	275.43	5,996.66	88.58	-931.11	-88.58	1.50	-1.50	0.00
6,200.00	8.79	275.43	6,095.27	90.15	-947.61	-90.15	1.50	-1.50	0.00
6,300.00	7.29	275.43	6,194.29	91.48	-961.53	-91.48	1.50	-1.50	0.00
6,400.00	5.79	275.43	6,293.63	92.56	-972.87	-92.56	1.50	-1.50	0.00
6,500.00	4.29	275.43	6,393.24	93.39	-981.62	-93.39	1.50	-1.50	0.00
6,600.00	2.79	275.43	6,493.05	93.97	-987.77	-93.97	1.50	-1.50	0.00
6,652.72	2.00	275.43	6,545.72	94.18	-989.96	-94.18	1.50	-1.50	0.00
Hold 2° Inc									
6,700.00	2.00	275.43	6,592.97	94.34	-991.60	-94.34	0.00	0.00	0.00
6,800.00	2.00	275.43	6,692.91	94.67	-995.08	-94.67	0.00	0.00	0.00
6,900.00	2.00	275.43	6,792.85	95.00	-998.55	-95.00	0.00	0.00	0.00
7,000.00	2.00	275.43	6,892.79	95.33	-1,002.02	-95.33	0.00	0.00	0.00
7,100.00	2.00	275.43	6,992.73	95.66	-1,005.50	-95.66	0.00	0.00	0.00
7,200.00	2.00	275.43	7,092.67	95.99	-1,008.97	-95.99	0.00	0.00	0.00
7,300.00	2.00	275.43	7,192.61	96.32	-1,012.45	-96.32	0.00	0.00	0.00
7,400.00	2.00	275.43	7,292.55	96.65	-1,015.92	-96.65	0.00	0.00	0.00
7,500.00	2.00	275.43	7,392.49	96.98	-1,019.40	-96.98	0.00	0.00	0.00
7,600.00	2.00	275.43	7,492.42	97.31	-1,022.87	-97.31	0.00	0.00	0.00
7,700.00	2.00	275.43	7,592.36	97.64	-1,026.34	-97.64	0.00	0.00	0.00
7,800.00	2.00	275.43	7,692.30	97.97	-1,029.82	-97.97	0.00	0.00	0.00
7,900.00	2.00	275.43	7,792.24	98.30	-1,033.29	-98.30	0.00	0.00	0.00
8,000.00	2.00	275.43	7,892.18	98.63	-1,036.77	-98.63	0.00	0.00	0.00
8,100.00	2.00	275.43	7,992.12	98.97	-1,040.24	-98.97	0.00	0.00	0.00
8,200.00	2.00	275.43	8,092.06	99.30	-1,043.72	-99.30	0.00	0.00	0.00
8,300.00	2.00	275.43	8,192.00	99.63	-1,047.19	-99.63	0.00	0.00	0.00
8,400.00	2.00	275.43	8,291.94	99.96	-1,050.66	-99.96	0.00	0.00	0.00
8,500.00	2.00	275.43	8,391.88	100.29	-1,054.14	-100.29	0.00	0.00	0.00
8,600.00	2.00	275.43	8,491.82	100.62	-1,057.61	-100.62	0.00	0.00	0.00
8,700.00	2.00	275.43	8,591.75	100.95	-1,061.09	-100.95	0.00	0.00	0.00
8,800.00	2.00	275.43	8,691.69	101.28	-1,064.56	-101.28	0.00	0.00	0.00
8,900.00	2.00	275.43	8,791.63	101.61	-1,068.04	-101.61	0.00	0.00	0.00
9,000.00	2.00	275.43	8,891.57	101.94	-1,071.51	-101.94	0.00	0.00	0.00
9,100.00	2.00	275.43	8,991.51	102.27	-1,074.98	-102.27	0.00	0.00	0.00
9,200.00	2.00	275.43	9,091.45	102.60	-1,078.46	-102.60	0.00	0.00	0.00
9,300.00	2.00	275.43	9,191.39	102.93	-1,081.93	-102.93	0.00	0.00	0.00
9,400.00	2.00	275.43	9,291.33	103.26	-1,085.41	-103.26	0.00	0.00	0.00
9,500.00	2.00	275.43	9,391.27	103.59	-1,088.88	-103.59	0.00	0.00	0.00
9,600.00	2.00	275.43	9,491.21	103.92	-1,092.35	-103.92	0.00	0.00	0.00
9,700.00	2.00	275.43	9,591.15	104.25	-1,095.83	-104.25	0.00	0.00	0.00
9,800.00	2.00	275.43	9,691.08	104.58	-1,099.30	-104.58	0.00	0.00	0.00
9,900.00	2.00	275.43	9,791.02	104.92	-1,102.78	-104.92	0.00	0.00	0.00
10,000.00	2.00	275.43	9,890.96	105.25	-1,106.25	-105.25	0.00	0.00	0.00



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.00	2.00	275.43	9,990.90	105.58	-1,109.73	-105.58	0.00	0.00	0.00
10,200.00	2.00	275.43	10,090.84	105.91	-1,113.20	-105.91	0.00	0.00	0.00
10,300.00	2.00	275.43	10,190.78	106.24	-1,116.67	-106.24	0.00	0.00	0.00
10,400.00	2.00	275.43	10,290.72	106.57	-1,120.15	-106.57	0.00	0.00	0.00
10,500.00	2.00	275.43	10,390.66	106.90	-1,123.62	-106.90	0.00	0.00	0.00
10,600.00	2.00	275.43	10,490.60	107.23	-1,127.10	-107.23	0.00	0.00	0.00
10,700.00	2.00	275.43	10,590.54	107.56	-1,130.57	-107.56	0.00	0.00	0.00
10,800.00	2.00	275.43	10,690.48	107.89	-1,134.05	-107.89	0.00	0.00	0.00
10,900.00	2.00	275.43	10,790.41	108.22	-1,137.52	-108.22	0.00	0.00	0.00
11,000.00	2.00	275.43	10,890.35	108.55	-1,140.99	-108.55	0.00	0.00	0.00
11,100.00	2.00	275.43	10,990.29	108.88	-1,144.47	-108.88	0.00	0.00	0.00
11,126.80	2.00	275.43	11,017.08	108.97	-1,145.40	-108.97	0.00	0.00	0.00
KOP 10°/100' DLS									
11,150.00	2.90	222.64	11,040.26	108.58	-1,146.20	-108.58	10.00	3.86	-227.58
11,200.00	7.38	194.85	11,090.05	104.54	-1,147.88	-104.54	10.00	8.96	-55.57
11,250.00	12.27	188.48	11,139.30	96.18	-1,149.49	-96.18	10.00	9.78	-12.73
11,300.00	17.22	185.73	11,187.64	83.56	-1,151.01	-83.56	10.00	9.90	-5.51
11,350.00	22.19	184.18	11,234.70	66.77	-1,152.44	-66.77	10.00	9.95	-3.10
11,400.00	27.17	183.17	11,280.12	45.94	-1,153.76	-45.94	10.00	9.97	-2.01
11,450.00	32.16	182.46	11,323.55	21.23	-1,154.96	-21.23	10.00	9.98	-1.43
11,500.00	37.15	181.92	11,364.67	-7.18	-1,156.04	7.18	10.00	9.98	-1.08
11,550.00	42.14	181.49	11,403.15	-39.06	-1,156.98	39.06	10.00	9.99	-0.86
11,600.00	47.14	181.14	11,438.72	-74.17	-1,157.78	74.17	10.00	9.99	-0.70
11,650.00	52.13	180.84	11,471.09	-112.25	-1,158.44	112.25	10.00	9.99	-0.60
11,700.00	57.13	180.58	11,500.03	-153.00	-1,158.94	153.00	10.00	9.99	-0.52
11,750.00	62.12	180.35	11,525.30	-196.12	-1,159.29	196.12	10.00	9.99	-0.47
11,800.00	67.12	180.13	11,546.72	-241.28	-1,159.47	241.28	10.00	9.99	-0.43
11,850.00	72.12	179.94	11,564.13	-288.14	-1,159.50	288.14	10.00	9.99	-0.40
11,900.00	77.11	179.75	11,577.39	-336.33	-1,159.37	336.33	10.00	9.99	-0.37
11,950.00	82.11	179.57	11,586.40	-385.50	-1,159.07	385.50	10.00	9.99	-0.36
11,983.12	85.42	179.45	11,590.00	-418.41	-1,158.79	418.41	10.00	9.99	-0.35
LP 11983.12' MD & 11590.00' TVD									
12,000.00	85.42	179.45	11,591.35	-435.24	-1,158.63	435.24	0.00	0.00	0.00
12,100.00	85.42	179.45	11,599.33	-534.92	-1,157.68	534.92	0.00	0.00	0.00
12,200.00	85.42	179.45	11,607.32	-634.59	-1,156.73	634.59	0.00	0.00	0.00
12,300.00	85.42	179.45	11,615.30	-734.27	-1,155.78	734.27	0.00	0.00	0.00
12,400.00	85.42	179.45	11,623.29	-833.94	-1,154.83	833.94	0.00	0.00	0.00
12,484.35	85.42	179.45	11,630.02	-918.02	-1,154.03	918.02	0.00	0.00	0.00
500' FTP									
12,500.00	85.73	179.45	11,631.23	-933.62	-1,153.88	933.62	2.00	2.00	-0.01
12,543.35	86.60	179.45	11,634.13	-976.87	-1,153.46	976.87	2.00	2.00	-0.01
12,600.00	86.60	179.45	11,637.49	-1,033.42	-1,152.92	1,033.42	0.00	0.00	0.00
12,700.00	86.60	179.45	11,643.42	-1,133.24	-1,151.96	1,133.24	0.00	0.00	0.00
12,800.00	86.60	179.45	11,649.35	-1,233.06	-1,151.00	1,233.06	0.00	0.00	0.00
12,900.00	86.60	179.45	11,655.28	-1,332.88	-1,150.05	1,332.88	0.00	0.00	0.00
12,985.27	86.60	179.45	11,660.34	-1,418.00	-1,149.23	1,418.00	0.00	0.00	0.00
1000' FTP									
13,000.00	86.89	179.45	11,661.17	-1,432.70	-1,149.09	1,432.70	2.00	2.00	0.00
13,080.27	88.50	179.45	11,664.40	-1,512.90	-1,148.32	1,512.90	2.00	2.00	0.00
13,100.00	88.50	179.45	11,664.92	-1,532.62	-1,148.13	1,532.62	0.00	0.00	0.00
13,200.00	88.50	179.45	11,667.53	-1,632.58	-1,147.17	1,632.58	0.00	0.00	0.00
13,300.00	88.50	179.45	11,670.15	-1,732.55	-1,146.21	1,732.55	0.00	0.00	0.00
13,400.00	88.50	179.45	11,672.77	-1,832.51	-1,145.25	1,832.51	0.00	0.00	0.00



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

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)
13,485.53	88.50	179.45	11,675.01	-1,918.00	-1,144.43	1,918.00	0.00	0.00	0.00
1500' FTP									
13,500.00	88.21	179.45	11,675.42	-1,932.47	-1,144.29	1,932.47	2.00	-2.00	0.00
13,600.00	86.21	179.45	11,680.29	-2,032.34	-1,143.33	2,032.34	2.00	-2.00	0.00
13,700.00	84.21	179.45	11,688.64	-2,131.98	-1,142.37	2,131.98	2.00	-2.00	0.00
13,724.53	83.72	179.45	11,691.22	-2,156.37	-1,142.14	2,156.37	2.00	-2.00	0.00
13,800.00	83.72	179.45	11,699.47	-2,231.39	-1,141.42	2,231.39	0.00	0.00	0.00
13,900.00	83.72	179.45	11,710.41	-2,330.78	-1,140.47	2,330.78	0.00	0.00	0.00
13,987.75	83.72	179.45	11,720.01	-2,418.00	-1,139.63	2,418.00	0.00	0.00	0.00
2000' FTP									
14,000.00	83.72	179.45	11,721.35	-2,430.18	-1,139.51	2,430.18	0.00	0.00	0.00
14,100.00	83.72	179.45	11,732.29	-2,529.57	-1,138.56	2,529.57	0.00	0.00	0.00
14,200.00	83.72	179.45	11,743.23	-2,628.97	-1,137.60	2,628.97	0.00	0.00	0.00
14,300.00	83.72	179.45	11,754.17	-2,728.36	-1,136.65	2,728.36	0.00	0.00	0.00
14,400.00	83.72	179.45	11,765.10	-2,827.76	-1,135.69	2,827.76	0.00	0.00	0.00
14,490.79	83.72	179.45	11,775.04	-2,918.00	-1,134.83	2,918.00	0.00	0.00	0.00
2500' FTP									
14,500.00	83.72	179.45	11,776.04	-2,927.15	-1,134.74	2,927.15	0.00	0.00	0.00
14,600.00	83.72	179.45	11,786.98	-3,026.55	-1,133.79	3,026.55	0.00	0.00	0.00
14,700.00	83.72	179.45	11,797.92	-3,125.94	-1,132.83	3,125.94	0.00	0.00	0.00
14,800.00	83.72	179.45	11,808.86	-3,225.34	-1,131.88	3,225.34	0.00	0.00	0.00
14,900.00	83.72	179.45	11,819.80	-3,324.74	-1,130.92	3,324.74	0.00	0.00	0.00
14,993.83	83.72	179.45	11,830.06	-3,418.00	-1,130.03	3,418.00	0.00	0.00	0.00
3000' FTP									
15,000.00	83.60	179.45	11,830.74	-3,424.13	-1,129.97	3,424.13	2.00	-2.00	0.00
15,022.83	83.14	179.45	11,833.38	-3,446.81	-1,129.75	3,446.81	2.00	-2.00	0.00
15,100.00	83.14	179.45	11,842.60	-3,523.42	-1,129.02	3,523.42	0.00	0.00	0.00
15,200.00	83.14	179.45	11,854.54	-3,622.70	-1,128.06	3,622.70	0.00	0.00	0.00
15,300.00	83.14	179.45	11,866.49	-3,721.98	-1,127.11	3,721.98	0.00	0.00	0.00
15,400.00	83.14	179.45	11,878.43	-3,821.26	-1,126.16	3,821.26	0.00	0.00	0.00
15,497.44	83.14	179.45	11,890.07	-3,918.00	-1,125.23	3,918.00	0.00	0.00	0.00
3500' FTP									
15,500.00	83.19	179.45	11,890.37	-3,920.54	-1,125.20	3,920.54	2.00	2.00	0.00
15,600.00	85.19	179.45	11,900.49	-4,020.01	-1,124.25	4,020.01	2.00	2.00	0.00
15,700.00	87.19	179.45	11,907.14	-4,119.78	-1,123.29	4,119.78	2.00	2.00	0.00
15,800.00	89.19	179.45	11,910.29	-4,219.72	-1,122.33	4,219.72	2.00	2.00	0.00
15,850.44	90.20	179.45	11,910.56	-4,270.16	-1,121.85	4,270.16	2.00	2.00	0.00
15,900.00	90.20	179.45	11,910.39	-4,319.72	-1,121.37	4,319.72	0.00	0.00	0.00
15,998.29	90.20	179.45	11,910.05	-4,418.00	-1,120.43	4,418.00	0.00	0.00	0.00
4000' FTP									
16,000.00	90.17	179.45	11,910.04	-4,419.71	-1,120.41	4,419.71	2.00	-2.00	0.00
16,038.29	89.40	179.45	11,910.19	-4,458.00	-1,120.05	4,458.00	2.00	-2.00	0.00
16,100.00	89.40	179.45	11,910.83	-4,519.70	-1,119.45	4,519.70	0.00	0.00	0.00
16,200.00	89.40	179.45	11,911.88	-4,619.69	-1,118.49	4,619.69	0.00	0.00	0.00
16,300.00	89.40	179.45	11,912.93	-4,719.68	-1,117.53	4,719.68	0.00	0.00	0.00
16,400.00	89.40	179.45	11,913.97	-4,819.67	-1,116.57	4,819.67	0.00	0.00	0.00
16,498.34	89.40	179.45	11,915.00	-4,918.00	-1,115.63	4,918.00	0.00	0.00	0.00
4500' FTP									
16,500.00	89.43	179.45	11,915.02	-4,919.66	-1,115.61	4,919.66	2.01	2.01	0.00
16,528.34	90.00	179.45	11,915.16	-4,948.00	-1,115.34	4,948.00	2.00	2.00	0.00
16,600.00	90.00	179.45	11,915.16	-5,019.66	-1,114.65	5,019.66	0.00	0.00	0.00
16,700.00	90.00	179.45	11,915.16	-5,119.65	-1,113.69	5,119.65	0.00	0.00	0.00
16,800.00	90.00	179.45	11,915.16	-5,219.65	-1,112.73	5,219.65	0.00	0.00	0.00



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,900.00	90.00	179.45	11,915.16	-5,319.65	-1,111.77	5,319.65	0.00	0.00	0.00
16,998.36	90.00	179.45	11,915.16	-5,418.00	-1,110.83	5,418.00	0.00	0.00	0.00
5000' FTP									
17,000.00	89.97	179.45	11,915.16	-5,419.64	-1,110.81	5,419.64	2.00	-2.00	0.00
17,092.36	88.12	179.45	11,916.70	-5,511.98	-1,109.93	5,511.98	2.00	-2.00	0.00
17,100.00	88.12	179.45	11,916.95	-5,519.62	-1,109.85	5,519.62	0.00	0.00	0.00
17,200.00	88.12	179.45	11,920.23	-5,619.56	-1,108.89	5,619.56	0.00	0.00	0.00
17,300.00	88.12	179.45	11,923.51	-5,719.50	-1,107.94	5,719.50	0.00	0.00	0.00
17,400.00	88.12	179.45	11,926.79	-5,819.44	-1,106.98	5,819.44	0.00	0.00	0.00
17,498.62	88.12	179.45	11,930.03	-5,918.00	-1,106.03	5,918.00	0.00	0.00	0.00
5500' FTP									
17,500.00	88.15	179.45	11,930.07	-5,919.38	-1,106.02	5,919.38	2.00	2.00	0.00
17,536.62	88.88	179.45	11,931.02	-5,955.99	-1,105.67	5,955.99	2.00	2.00	0.00
17,600.00	88.88	179.45	11,932.26	-6,019.35	-1,105.06	6,019.35	0.00	0.00	0.00
17,700.00	88.88	179.45	11,934.22	-6,119.33	-1,104.10	6,119.33	0.00	0.00	0.00
17,800.00	88.88	179.45	11,936.17	-6,219.31	-1,103.14	6,219.31	0.00	0.00	0.00
17,900.00	88.88	179.45	11,938.13	-6,319.28	-1,102.18	6,319.28	0.00	0.00	0.00
17,998.74	88.88	179.45	11,940.06	-6,418.00	-1,101.23	6,418.00	0.00	0.00	0.00
6000' FTP									
18,000.00	88.91	179.45	11,940.08	-6,419.26	-1,101.22	6,419.26	2.00	2.00	0.00
18,027.24	89.45	179.45	11,940.47	-6,446.50	-1,100.96	6,446.50	2.00	2.00	0.00
18,100.00	89.45	179.45	11,941.17	-6,519.25	-1,100.26	6,519.25	0.00	0.00	0.00
18,200.00	89.45	179.45	11,942.13	-6,619.24	-1,099.30	6,619.24	0.00	0.00	0.00
18,300.00	89.45	179.45	11,943.09	-6,719.23	-1,098.34	6,719.23	0.00	0.00	0.00
18,400.00	89.45	179.45	11,944.05	-6,819.22	-1,097.38	6,819.22	0.00	0.00	0.00
18,498.79	89.45	179.45	11,945.00	-6,918.00	-1,096.43	6,918.00	0.00	0.00	0.00
18,498.95	89.45	179.45	11,945.00	-6,918.16	-1,096.43	6,918.16	0.00	0.00	0.00
6500' FTP									
18,500.00	89.43	179.45	11,945.01	-6,919.21	-1,096.42	6,919.21	2.30	-2.30	0.00
18,514.79	89.13	179.45	11,945.20	-6,934.00	-1,096.28	6,934.00	2.00	-2.00	0.00
18,600.00	89.13	179.45	11,946.49	-7,019.19	-1,095.46	7,019.19	0.00	0.00	0.00
18,700.00	89.13	179.45	11,948.01	-7,119.18	-1,094.50	7,119.18	0.00	0.00	0.00
18,800.00	89.13	179.45	11,949.53	-7,219.16	-1,093.54	7,219.16	0.00	0.00	0.00
18,900.00	89.13	179.45	11,951.05	-7,319.15	-1,092.58	7,319.15	0.00	0.00	0.00
19,000.00	89.13	179.45	11,952.56	-7,419.13	-1,091.62	7,419.13	0.00	0.00	0.00
19,100.00	89.13	179.45	11,954.08	-7,519.11	-1,090.66	7,519.11	0.00	0.00	0.00
19,200.00	89.13	179.45	11,955.60	-7,619.10	-1,089.70	7,619.10	0.00	0.00	0.00
19,300.00	89.13	179.45	11,957.12	-7,719.08	-1,088.74	7,719.08	0.00	0.00	0.00
19,400.00	89.13	179.45	11,958.64	-7,819.07	-1,087.78	7,819.07	0.00	0.00	0.00
19,498.95	89.13	179.45	11,960.14	-7,918.00	-1,086.83	7,918.00	0.00	0.00	0.00
7500' FTP									
19,500.00	89.15	179.45	11,960.16	-7,919.05	-1,086.82	7,919.05	2.00	1.98	0.23
19,550.69	90.16	179.57	11,960.46	-7,969.73	-1,086.39	7,969.73	2.00	1.99	0.23
19,600.00	90.16	179.57	11,960.33	-8,019.04	-1,086.02	8,019.04	0.00	0.00	0.00
19,700.00	90.16	179.57	11,960.05	-8,119.04	-1,085.27	8,119.04	0.00	0.00	0.00
19,718.56	90.16	179.57	11,960.00	-8,137.60	-1,085.13	8,137.60	0.00	0.00	0.00
PBHL 19718.56' MD & 11960.00' TVD									



SB Directional Services

Planning Report

Kaiser-Francis Oil Company

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BELL LAKE UNIT S. 411H
Company:	KAISER FRANCIS OIL CO.	TVD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Project:	LEA COUNTY, N.M. 27	MD Reference:	GE+23.5 @ 3620.90usft (CAC 169)
Site:	SEC 6-T24S-R34E	North Reference:	Grid
Well:	BELL LAKE UNIT S. 411H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HORIZONTAL		
Design:	PLAN 2		

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
BLU #26 - plan misses target center by 1347.93usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Circle (radius 410.00)	0.00	0.01	0.00	-1,307.84	-326.31	453,384.66	756,971.50	32.24374	-103.50219
BLU #16 - plan misses target center by 3619.50usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Circle (radius 445.00)	0.00	0.00	0.00	-3,606.00	-312.36	451,086.50	756,985.45	32.23742	-103.50220
KOP 411H - plan hits target center - Point	0.00	0.00	11,017.08	108.97	-1,145.40	454,801.47	756,152.41	32.24765	-103.50480
FTP 411H - plan hits target center - Point	0.00	0.00	11,590.00	-418.41	-1,158.79	454,274.09	756,139.02	32.24620	-103.50486
PBHL 411H - plan hits target center - Point	0.00	0.00	11,960.00	-8,137.60	-1,085.13	446,554.90	756,212.68	32.22498	-103.50481

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,600.00	1,600.00	0.00	0.00	Start Nudge 2°/100' DLS
2,250.00	2,244.44	6.95	-73.09	Hold 13° Inc
5,919.38	5,819.77	85.13	-894.81	Start Drop 1.5°/100' DLS
6,652.72	6,545.72	94.18	-989.96	Hold 2° Inc
11,126.80	11,017.08	108.97	-1,145.40	KOP 10°/100' DLS
11,983.12	11,590.00	-418.41	-1,158.79	LP 11983.12' MD & 11590.00' TVD
12,484.35	11,630.02	-918.02	-1,154.03	500' FTP
12,985.27	11,660.34	-1,418.00	-1,149.23	1000' FTP
13,485.53	11,675.01	-1,918.00	-1,144.43	1500' FTP
13,987.75	11,720.01	-2,418.00	-1,139.63	2000' FTP
14,490.79	11,775.04	-2,918.00	-1,134.83	2500' FTP
14,993.83	11,830.06	-3,418.00	-1,130.03	3000' FTP
15,497.44	11,890.07	-3,918.00	-1,125.23	3500' FTP
15,998.29	11,910.05	-4,418.00	-1,120.43	4000' FTP
16,498.34	11,915.00	-4,918.00	-1,115.63	4500' FTP
16,998.36	11,915.16	-5,418.00	-1,110.83	5000' FTP
17,498.62	11,930.03	-5,918.00	-1,106.03	5500' FTP
17,998.74	11,940.06	-6,418.00	-1,101.23	6000' FTP
18,498.95	11,945.00	-6,918.16	-1,096.43	6500' FTP
19,498.95	11,960.14	-7,918.00	-1,086.83	7500' FTP
19,718.56	11,960.00	-8,137.60	-1,085.13	PBHL 19718.56' MD & 11960.00' TVD

District I
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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

CONDITIONS

Action 146083

CONDITIONS

Operator: KAISER-FRANCIS OIL CO PO Box 21468 Tulsa, OK 74121146	OGRID: 12361
	Action Number: 146083
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	9/29/2022